



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC**

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**Place du Portage, Phase III**

**Core 0B2 / Noyau 0B2**

**Gatineau**

**Québec**

**K1A 0S5**

**Bid Fax: (819) 997-9776**

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

**Proposal To: Public Works and Government  
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services  
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

**Comments - Commentaires**

**Vendor/Firm Name and Address**

**Raison sociale et adresse du**

**fournisseur/de l'entrepreneur**

**Issuing Office - Bureau de distribution**

Informatics Professional Services Division / Division des  
services professionnels en informatique

Les Terrasses de la Chaudière

10, rue Wellington, 4ième

étage/Floor

Gatineau

Québec

K1A 0S5

<b>Title - Sujet</b> SBIPS TGMS / SPICS SGSTO	
<b>Solicitation No. - N° de l'invitation</b> 2K001-239347/A	<b>Date</b> 2022-10-25
<b>Client Reference No. - N° de référence du client</b> 19347	
<b>GETS Reference No. - N° de référence de SEAG</b>	
<b>File No. - N° de dossier</b> 384zm.2K001-239347	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Standard Time EST <b>on - le 2022-11-16</b> Heure Normale du l'Est HNE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Beaudoin, Michael	<b>Buyer Id - Id de l'acheteur</b> 384zm
<b>Telephone No. - N° de téléphone</b> (613) 859-0841 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b> See Herein – Voir ci-inclus	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

**BID SOLICITATION**  
**FOR A CONTRACT AGAINST A SUPPLY ARRANGEMENT FOR**  
**SOLUTION- BASED INFORMATICS PROFESSIONAL SERVICES**  
**(SBIPS)**  
**FOR**  
**THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL**  
**(NSERC)**

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**List of Annexes to the Resulting Contract:**

Annex A Statement of Work

Appendix A to Annex A – Tasking Assessment Procedure

Appendix B to Annex A – Task Authorization Form

Appendix C to Annex A – Resources Assessment Criteria and Response Table

Appendix D to Annex A – Certifications at the TA Stage

Appendix E to Annex A – Transitions Services at the End of the Contract Period

Annex B Basis of Payment

Annex C Security Requirements Check List

**List of Attachment to Part 4 (Evaluation Procedures and Basis of Selection):**

-Attachment 4.1: Mandatory Technical Criteria's

-Attachment 4.1: Rated Technical Criteria's

-Attachment 4.2: Pricing Schedule

**Forms:**

-Form 3.0 – Bid Submission Form

-Form 5.1 – Federal Contractors Program for Employment Equity – Certification



**BID SOLICITATION**

**FOR A CONTRACT AGAINST A SUPPLY ARRANGEMENT FOR  
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(SBIPS)  
FOR  
THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL  
(NSERC)**

**PART 1 - GENERAL INFORMATION**

**1.1 Introduction**

This document states terms and conditions that apply to this bid solicitation. It is divided into seven parts plus attachments and annexes, as follows:

Part 1 General Information: provides a general description of the requirement;

Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;

Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;

Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, if applicable, and the basis of selection;

Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;

Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by Bidders; and

Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The annexes include the Statement of Work and any other annexes.

**1.2 Summary**

- (a) This bid solicitation is being issued to satisfy the requirement of The Natural Sciences and Engineering Research Council (the "**Client**") for Solution-Based Informatics Professional Services (SBIPS) under the SBIPS Supply Arrangement (SA) method of supply.
- (b) It is intended to result in the award of a contract, for 3 years plus two one-year irrevocable options allowing Canada to extend the term of the contract.
- (c) There are security requirements associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 – Resulting Contract Clauses. For more information on personnel and organization security screening or security clauses, Bidders should refer to the Contract Security Program of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.
- (d) The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the Canada-Chile Free Trade Agreement (CCFTA), the Canada-Peru Free Trade Agreement (CPFTA), the Canada-Colombia Free Trade Agreement (CColFTA), the Canada-Panama Free Trade Agreement (CPanFTA), the Canada-European

Union Comprehensive Economic and Trade Agreement (CETA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the Canadian Free Trade Agreement (CFTA), the Canada-Ukraine Free Trade Agreement (CUFTA), the Agreement on Trade Continuity between Canada and the United Kingdom of Great Britain and Northern Ireland and the Canada-Korea Free Trade Agreement (CKFTA).

- (e) This bid solicitation is to establish a contract with task authorizations for the delivery of the requirement detailed in the bid solicitation across Canada, excluding locations within Yukon, Northwest Territories, Nunavut, Quebec, and Labrador that are subject to Comprehensive Land Claims Agreements (CLCAs). Any requirement for deliveries within CLCAs areas within Yukon, Northwest Territories, Nunavut, Quebec, or Labrador will be treated as a separate procurement, outside the resulting contract.
- (f) This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled "Bidder Instructions, and Part 3 entitled "Bid Preparation Instructions", of the bid solicitation, for further information.
- (g) This SBIPS SA RFP is a requirement involving the following SBIPS Domain(s) of Expertise:

**Systems Integration**

The three granting agencies NSERC, SSHRC, and CIHR have a requirement for configuration accelerators, maintenance and support as well as services to transition from multiple legacy grants management systems to a unified cloud solution on Microsoft Dynamics 365 Power Platform.

- (h) The Resource Categories described below are required on an as and when requested basis in accordance with the SBIPS SA Annex "A":

RESOURCE CATEGORY	LEVEL OF EXPERTISE	ESTIMATED NUMBER OF RESOURCES REQUIRED
Application Integration Architect	LEVEL 3	1
Application Technology / COTS Development Specialist	LEVEL 3	1
BI Programmer/Software	LEVEL 3	2
Test Coordinator	LEVEL 3	2
Tester	LEVEL 3	1
Database Modeler	LEVEL 3	1
Technology / Technical Architect	LEVEL 3	1
Project Coordinator	LEVEL 3	2
Project Leader	LEVEL 3	1
Project Manager	LEVEL 3	1
System Integration Project Manager	LEVEL 3	1
Project Executive	LEVEL 3	1

Quality Assurance	LEVEL 3	1
Enterprise Architect	LEVEL 3	1
Information Architect	LEVEL 3	1
Security Architect	LEVEL 3	1
Special Advisor	LEVEL 3	1
Business Transformation Architect	LEVEL 1	1
System Analyst	LEVEL 1	1
Web Architect	LEVEL 1	1

- (i) Only SBIPS SA Holders holding a SBIPS SA for Tier 2 at the time of bid closing, for all required resource categories in this solicitation and in the National Capital Region under the EN537-05IT01 series of SAs are eligible to compete. The SBIPS SA EN537-05IT01 is incorporated by reference and forms part of this bid solicitation, as though expressly set out in it, subject to any express terms and conditions contained in this bid solicitation. The capitalized terms not defined in this bid solicitation have the meaning given to them in the SBIPS SA.

All SBIPS SA Holders currently holding a SBIPS SA for Tier 2 in the National Capital Region under the EN537-05IT01 series of SA's are invited to bid on this requirement.

- (j) SA Holders that are invited to compete as a joint venture must submit a bid as that joint venture SA Holder, forming no other joint venture to bid. Any joint venture must be already qualified under the SA EN537-05IT01 as that joint venture at the time of bid closing in order to submit a bid.

### 1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be provided in writing, by telephone or in person.

## PART 2 - BIDDER INSTRUCTIONS

### 2.1 Standard Instructions, Clauses and Conditions

- (a) All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.
- (b) Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract(s).
- (c) The 2003 (2022-03-29) Standard Instructions - Goods or Services - Competitive Requirements are incorporated by reference into and form part of the bid solicitation. If there is a conflict between the provisions of 2003 and this document, this document prevails.
- (d) Subsection 3.a. of Section 01, Integrity provisions - bid of Standard Instructions 2003 incorporated by reference above is deleted in its entirety and replaced with the following:

- a. at the time of submitting an arrangement under the Request for Supply Arrangement (RFSA), the Bidder has already provided a list of names, as requested under the *Ineligibility and Suspension Policy*. During this procurement process, the Bidder must immediately inform Canada in writing of any changes affecting the list of names.
- (e) Subsection 4 of Section 05, Submission of bids of Standard Instructions 2003 incorporated by reference above, is amended as follows:  
Delete: 60 days  
Insert: 365 days
- (f) Subsection 1 a, of Section 08, Transmission by Facsimile or by epost Connect of Standard Instructions 2003 incorporated by reference above, is deleted and replaced by the following:
  - 1. Facsimile
    - a. Bids may be submitted by facsimile.
    - i. PWGSC, National Capital Region: The only acceptable facsimile number for responses to bid solicitations issued by PWGSC headquarters is 418-566-6161.

## 2.2 Submission of Bids

- (a) Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit **via e-post Connect or facsimile** by the date and time indicated on page one of the bid solicitation.

**Note:** For bidders choosing to submit using epost Connect for bids closing at the Bid Receiving Unit in the National Capital Region (NCR), the email address is:

[tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca](mailto:tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca)

**Note:** **Bids will not be accepted if emailed directly to this email address.** This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Facsimile number: 418-566-6161

**Due to the nature of the bid solicitation, bids transmitted directly to the PWGSC Contracting Authority by email (or other means) will not be accepted.**

## 2.3 Enquiries - Bid Solicitation

- (a) All enquiries must be submitted in writing to the Contracting Authority no later than 10 calendar days before the bid closing date. Enquiries received after that time may not be answered.
- (b) Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered with copies to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

## 2.4 Former Public Servant

- (a) Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public

funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, Bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

(b) **Definitions**

For the purposes of this clause, "*former public servant*" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- (i) an individual;
- (ii) an individual who has incorporated;
- (iii) a partnership made of former public servants; or
- (iv) a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"*lump sum payment period*" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"*pension*" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

(c) **Former Public Servant in Receipt of a Pension**

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes ( ) No ( )**

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- (i) name of former public servant;
- (ii) date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

(d) **Work Force Adjustment Directive**

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes ( ) No ( )**

If so, the Bidder must provide the following information:

- (i) name of former public servant;
- (ii) conditions of the lump sum payment incentive;
- (iii) date of termination of employment;
- (iv) amount of lump sum payment;
- (v) rate of pay on which lump sum payment is based;
- (vi) period of lump sum payment including start date, end date and number of weeks;
- (vii) number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

## **2.5 Applicable Laws**

- (a) Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.,

**Note to Bidders:** Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of its bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of its choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidder. Bidders are requested to indicate the Canadian province or territory they wish to apply to any resulting contract in their Bid Submission Form.

## **2.6 Improvement of Requirement During Solicitation Period**

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reasons for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority in accordance with the article entitled "Enquiries - Bid Solicitation". Canada will have the right to accept or reject any or all suggestions.

## **2.7 Bid Challenge and Recourse Mechanisms**

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's Buy and Sell website, under the heading "Bid Challenge and Recourse Mechanisms" contains information on potential complaint bodies such as:
  - (i) Office of the Procurement Ombudsman (OPO)
  - (ii) Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are strict deadlines for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

## PART 3 - BID PREPARATION INSTRUCTIONS

### 3.1 Bid Preparation Instructions

#### (a) Epost Connect Bid Submission

- (i) If the Bidder chooses to submit its bid electronically, Canada requires that the Bidder submits its bid in accordance with section 08 of the 2003 Standard Instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.
- (ii) The bid must be gathered per section and separated as follows:
  - (A) Section I: Technical Bid
  - (B) Section II: Financial Bid
  - (C) Section III: Certifications
  - (D) Section IV: Additional Information
- (iii) For further information please refer to article 08 - Transmission by facsimile or by epost Connect at <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual/1/2003/23#transmission-by-facsimile>.

#### (b) Copy Bid Submission (USB key)

- (i) If the Bidder chooses to submit its bid in soft copy via the PWGSC Bid Receiving Unit, Canada requires that the Bidder submits its bid in separate sections as follows:
  - (A) Section I: Technical Bid – One soft copy on a USB key
  - (B) Section II: Financial Bid – One soft copy on a SEPARATE USB key
  - (C) Section III: Certifications – One soft copy on a USB key
  - (D) Section IV: Additional Information - One soft copy on a USB key

#### (c) **Format for Bid:** Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

- (i) use 8.5 x 11 inch (216 mm x 279 mm) page size;
- (ii) use a numbering system that corresponds to the bid solicitation;
- (iii) include a title page at the front of each volume of the bid that includes the title, date, bid solicitation number, bidder's name and address and contact information of its representative; and
- (iv) include a table of contents.

#### (d) **Canada's Policy on Green Procurement:** In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process. See the Policy on Green Procurement (<http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, Bidders should:

- (i) use paper containing fibre certified as originating from a sustainably-managed forest and/or containing a minimum of 30% recycled content; and
- (ii) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, and using staples or clips instead of cerlox, duotangs or binders.

(e) **Submission of Only One Bid:**

- (i) A Bidder, including related entities, will be permitted to submit only one bid in response to this bid solicitation. If a Bidder or any related entities participate in more than one bid (participating means being part of the Bidder, not being a subcontractor), Canada will provide those Bidders with 2 working days to identify the single bid to be considered by Canada. Failure to meet this deadline will result in all the affected bids being disqualified.
- (ii) For the purposes of this Article, regardless of the jurisdiction where any of the entities concerned is incorporated or otherwise formed as a matter of law (whether that entity is a natural person, corporation, partnership, etc), an entity will be considered to be "related" to a Bidder if:
  - (A) they are the same legal entity (i.e., the same natural person, corporation, partnership, limited liability partnership, etc.);
  - (B) they are "related persons" or "affiliated persons" according to the Canada Income Tax Act;
  - (C) the entities have now or in the two years before bid closing had a fiduciary relationship with one another (either as a result of an agency arrangement or any other form of fiduciary relationship); or
  - (D) the entities otherwise do not deal with one another at arm's length, or each of them does not deal at arm's length with the same third party.
- (iii) Individual members of a joint venture cannot participate in another bid, either by submitting a bid alone or by participating in another joint venture. .

(f) **Joint Venture Experience:**

- (i) Where the Bidder is a joint venture with existing experience as that joint venture, it may submit the experience that it has obtained as that joint venture.

Example: A bidder is a joint venture consisting of members L and O. A bid solicitation requires that the bidder demonstrate experience providing maintenance and help desk services for a period of 24 months to a customer with at least 10,000 users. As a joint venture (consisting of members L and O), the bidder has previously done the work. This bidder can use this experience to meet the requirement. If member L obtained this experience while in a joint venture with a third party N, however, that experience cannot be used because the third party N is not part of the joint venture that is bidding.
- (ii) A joint venture bidder may rely on the experience of one of its members to meet any given technical criterion of this bid solicitation.

Example: A bidder is a joint venture consisting of members X, Y and Z. If a solicitation requires: (a) that the bidder have 3 years of experience providing maintenance service, and (b) that the bidder have 2 years of experience integrating hardware with complex networks, then each of these two requirements can be met by a different member of the joint venture. However, for a single criterion, such as the requirement for 3 years of experience providing maintenance services, the bidder cannot indicate that each of members X, Y and Z has one year of experience, totaling 3 years. Such a response would be declared non-responsive.
- (iii) Joint venture members cannot pool their abilities with other joint venture members to satisfy a single technical criterion of this bid solicitation. However, a joint venture member can pool its individual experience with the experience of the joint venture itself. Wherever substantiation of a criterion is required, the Bidder is requested to indicate which joint venture member satisfies the requirement. If the Bidder has not identified which joint venture member satisfies the requirement, the Contracting Authority will provide an opportunity to the Bidder to submit this information during the evaluation period. If the



Bidder does not submit this information within the period set by the Contracting Authority, its bid will be declared non-responsive.

Example: A bidder is a joint venture consisting of members A and B. If a bid solicitation requires that the bidder demonstrate experience providing resources for a minimum number of 100 billable days, the bidder may demonstrate that experience by submitting either:

- Contracts all signed by A;
- Contracts all signed by B; or
- Contracts all signed by A and B in joint venture, or
- Contracts signed by A and contracts signed by A and B in joint venture, or
- Contracts signed by B and contracts signed by A and B in joint venture.

That show in total 100 billable days.

- (iv) Any Bidder with questions regarding the way in which a joint venture bid will be evaluated should raise such questions through the Enquiries process as early as possible during the bid solicitation period.

### 3.2 Section I: Technical Bid

(a) The technical bid consists of the following:

- (i) **Bid Submission Form:** Bidders are requested to include the Bid Submission Form – Attachment 3.1 with their bids. It provides a common form in which bidders can provide information required for evaluation and contract award, such as a contact name and the Bidder's Procurement Business Number, etc. Using the form to provide this information is not mandatory, but it is recommended. If Canada determines that the information required by the Bid Submission Form is incomplete or requires correction, Canada will provide the Bidder with an opportunity to do so.
- (ii) **Security Clearance:** Bidders are requested to submit the following security information for each of the proposed resources with their bids on or before the bid closing date:

SECURITY INFORMATION	
Name of individual as it appears on security clearance application form	
Level of security clearance obtained	
Validity period of security clearance obtained	
Security Screening Certificate and Briefing Form file number	

If the Bidder has not included the security information in its bid, the Contracting Authority will provide an opportunity to the Bidder to submit the security information during the evaluation period. If the Bidder has not submitted the security information within the period set by the Contracting Authority, its bid will be declared non-responsive.

(iii) **Substantiation of Technical Compliance:**

- a. **Mandatory Technical Criteria:** The technical bid must substantiate the compliance with the specific articles of Attachment 4.1", which is the requested format for providing the substantiation. The substantiation must not simply be a repetition of the requirement(s), but must explain and demonstrate how the Bidder will meet the requirements and carry out the required Work. Simply stating that the Bidder or its proposed solution or resources comply is not sufficient.

Where Canada determines that the substantiation is not complete, the Bidder will be considered non-responsive and disqualified. The substantiation may refer to additional documentation submitted with the bid - this information can be referenced in the "Bidder's Response" column of Attachment 4.1, where Bidders are requested to indicate where in the bid the reference material can be found, including the title of the document, and the page and paragraph numbers; where the reference is not sufficiently precise, Canada may request that the Bidder direct Canada to the appropriate location in the documentation.

- b. **Point-Rated Technical Criteria** The technical bid must substantiate the compliance with the specific articles of Attachment 4.1, which is the requested format for providing the substantiation. The substantiation must not simply be a repetition of the requirement(s), but must explain and demonstrate how the Bidder will meet the requirements and carry out the required Work. Simply stating that the Bidder or its proposed solution or resources comply is not sufficient. Where Canada determines that the substantiation is not complete, the Bidder will be rated accordingly. The substantiation may refer to additional documentation submitted with the bid - this information can be referenced in the "Bidder's Response" column of Attachment 4.2, where Bidders are requested to indicate where in the bid the reference material can be found, including the title of the document, and the page and paragraph numbers; where the reference is not sufficiently precise, Canada may request that the Bidder direct Canada to the appropriate location in the documentation.

- (iv) **Previous Similar Projects:** Where the bid must include a description of previous similar projects: (i) a project must have been completed by the Bidder itself (and cannot include the experience of any proposed subcontractor or any affiliate of the Bidder); (ii) a project must have been completed [ or, optional wording, replace "completed" with "commenced"] by the bid closing date; (iii) each project description must include, at minimum, the name and either the telephone number or e-mail address of a customer reference; and (iv) if more similar projects are provided than requested, Canada will decide in its discretion which projects will be evaluated. A project will be considered "similar" to the Work to be performed under any resulting contract if the project was for the performance of work that closely matches the descriptions of the Resource Categories identified in Annex A. Work will be considered to "closely match" if the work in the provided project is described in at least 50% of the points of responsibility listed in the description of the given Resource Category

- (A) For work experience, PWGSC will not consider experience gained as part of an educational program, except for experience gained through a formal co-operative program at a post-secondary institution.
- (B) For any requirements that specify a particular time period (e.g., 2 years) of work experience, PWGSC will disregard any information about experience if the technical bid does not include the relevant dates (month and year) for the experience claimed (i.e., the start date and end date). Canada will evaluate only the duration that the resource actually worked on a project or projects (from his or her start date to end date), instead of the overall start and end date of a project or a combination of projects in which a resource has participated.
- (C) For work experience to be considered by Canada, the technical bid must not simply indicate the title of the individual's position, but must demonstrate that the resource has the required work experience by explaining the responsibilities and work performed by the individual while in that position. Only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the requirement, or reusing the same wording as the qualification requirements, will not be considered "demonstrated" for the purposes of the assessment. The Contractor should provide complete details as to where, when, month and year, and how, through which activities/responsibilities, the stated

qualifications / experience were obtained. In situations in which a proposed resource worked at the same time on more than one project, the duration of any overlapping time period will be counted only once toward any requirements that relate to the individual's length of experience.

(v) **Customer Reference Contact Information:**

In conducting its evaluation of the bids, Canada may, but will have no obligation to request that a bidder provide customer references. If Canada sends such a written request, the bidder will have 2 working days to provide the necessary information to Canada. Failure to meet this deadline will result in the bid being declared non-responsive. These customer references must each confirm **if** requested by PWGSC, the facts identified in the Bidder's bid.

Canada may ask all or only one of the following questions.

(A) The form of question to be used to request confirmation from customer references is as follows:

- 1) *"Has [the Bidder] provided your organization with grants management specific templates or accelerators to facilitate deployment of a grants management solution on a Microsoft cloud platform?"*
- 2) *"Has [the Bidder] provided your organization with grants management specific professional services to aid in the deployment of a grants management solution on a Microsoft cloud platform?"*
- 3) *"If [the Bidder] provided your organization with one or more of the products or services listed above, was the work completed within the initially anticipated timeline and budget?"*
- 4) *"Has [the bidder] provided you with a plan for transferring knowledge to your team in order to support the solution, and was it completed on time.?"*

\_\_\_ Yes, the Bidder has provided my organization with the services or products described above.

\_\_\_ No, the Bidder has not provided my organization with the services or products described above.

\_\_\_ I am unwilling or unable to provide any information about the services or products described above.

(B) For each customer reference, the Bidder must, at a minimum, provide the name and either the telephone number or e-mail address for a contact person. If only the telephone number is provided, it will be used to call to request the e-mail address and the reference check will be done by e-mail.

Bidders are also requested to include the title of the contact person. It is the sole responsibility of the Bidder to ensure that it provides a contact who is knowledgeable about the services the Bidder has provided to its customer and who is willing to act as a customer reference. Crown references will be accepted.

(vi) **Corporate Profile:** The Bidder is requested to provide a corporate profile, which should include an overview of the Bidder and any subcontractors, and/or authorized agents of the Bidder that would be involved in the performance of the Work on the Bidder's behalf. The Bidder is requested to provide a brief description of its size, corporate structure, years in business, business activities, major customers, number of employees and their geographic presence. This information is requested for information purposes only and will not be evaluated.

### 3.3 Section II: Financial Bid

- (a) **Pricing:** Bidders must submit their financial bid in accordance with the Pricing Schedule provided in Attachment 4.2. The total amount of Applicable Taxes must be shown separately, if applicable. Unless otherwise indicated, bidders must include a single, firm, all-inclusive per diem rate quoted in Canadian dollars in each cell requiring an entry in the pricing tables.
- (b) **Variation in Resource Rates By Time Period:** For any given resource category, where the financial tables provided by Canada allow different firm rates to be charged for a resource category during different time periods:
  - (i) the rate bid must not increase by more than 5% from one time period to the next, and
  - (ii) the rate bid for the same resource category during any subsequent time period must not be lower than the rate bid for the time period that includes the first month of the Initial Contract Period
- (c) **Variation in Resource Rates By Level:** Where the financial tables provided by Canada allow different firm rates to be charged for different levels of experience within the same resource category and time period, for any such resource category and time period:
  - (i) the rate bid for level three must be the same or higher than that bid for level two, and
  - (ii) the rate bid for level two must be the same or higher than the rate bid for level one.
- (d) **All Costs to be Included:** The financial bid must include all costs for the requirement described in the bid solicitation for the entire Contract Period, including any option periods. The identification of all necessary equipment, software, peripherals, cabling and components required to meet the requirements of the bid solicitation and the associated costs of these items is the sole responsibility of the Bidder.
- (e) **Blank Prices:** Bidders are requested to insert "\$0.00" for any item for which it does not intend to charge or for items that are already included in other prices set out in the tables. If the Bidder leaves any price blank, Canada will treat the price as "\$0.00" for evaluation purposes and may request that the Bidder confirm that the price is, in fact, \$0.00. No bidder will be permitted to add or change a price as part of this confirmation. Any bidder who does not confirm that the price for a blank item is \$0.00 will be declared non-responsive.

**Note to Bidders:** If Canada receives 4 or fewer Bids [the same number of bids as in the article entitled "Phased Bid Compliance Process"] by the bid solicitation closing date, the above sub-article entitled "Blank Prices" will not apply.

### 3.4 Section III: Certifications

It is a requirement that bidders submit the certifications and additional information identified under Part 5.

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria. There are several steps in the evaluation process, which are described below. Even though the evaluation and selection will be conducted in steps, the fact that Canada has proceeded to a later step does not mean that Canada has conclusively determined that the Bidder has successfully passed all the previous steps. Canada may conduct steps of the evaluation in parallel.
- (b) An evaluation team composed of representatives of the Client and PWGSC will evaluate the bids on behalf of Canada. Canada may hire any independent consultant, or use any Government resources, to evaluate any bid. Not all members of the evaluation team will necessarily participate in all aspects of the evaluation.
- (c) In addition to any other time periods established in the bid solicitation:
  - (i) **Requests for Clarifications:** If Canada seeks clarification or verification from the Bidder about its bid, the Bidder will have 2 working days (or a longer period if specified in writing by the Contracting Authority) to provide the necessary information to Canada. Failure to meet this deadline will result in the bid being declared non-responsive.
  - (ii) **Requests for Further Information:** If Canada requires additional information in order to do any of the following pursuant to the Section entitled "Conduct of Evaluation" in 2003, Standard Instructions - Goods or Services - Competitive Requirements:
    - (A) verify any or all information provided by the Bidder in its bid; or
    - (B) contact any or all references supplied by the Bidder (e.g., references named in the résumés of individual resources) to verify and validate any information submitted by the Bidder,the Bidder must provide the information requested by Canada within 5 working days of a request by the Contracting Authority.
  - (iii) **Extension of Time:** If additional time is required by the Bidder, the Contracting Authority may grant an extension in his or her sole discretion.

#### 4.1.1 Phased Bid Compliance Process

##### 4.1.1.1 General

- (a) Canada will conduct the Phased Bid Compliance Process (PBCP) described below for this requirement ONLY if Canada receives four or fewer bids in response to the requirement by the bid solicitation closing date.
- (b) Notwithstanding any review by Canada at Phase I or II of the PBCP, Bidders are and will remain solely responsible for the accuracy, consistency and completeness of their Bids and Canada does not undertake, by reason of this review, any obligations or responsibility for identifying any or all errors or omissions in Bids or in responses by a Bidder to any communication from Canada.

THE BIDDER ACKNOWLEDGES THAT THE REVIEWS IN PHASE I AND II OF THIS PBCP ARE PRELIMINARY AND DO NOT PRECLUDE A FINDING IN PHASE III THAT THE BID IS NON-RESPONSIVE, EVEN FOR MANDATORY REQUIREMENTS WHICH WERE SUBJECT TO REVIEW IN PHASE I OR II AND NOTWITHSTANDING THAT THE BID HAD BEEN FOUND RESPONSIVE IN SUCH EARLIER PHASE. CANADA MAY DEEM A BID TO BE NON-RESPONSIVE TO A MANDATORY REQUIREMENT AT ANY PHASE. THE BIDDER ALSO ACKNOWLEDGES THAT ITS RESPONSE TO A NOTICE OR A COMPLIANCE ASSESSMENT REPORT (CAR) (EACH DEFINED BELOW) IN PHASE I OR II MAY NOT BE SUCCESSFUL IN

RENDERING ITS BID RESPONSIVE TO THE MANDATORY REQUIREMENTS THAT ARE THE SUBJECT OF THE NOTICE OR CAR, AND MAY RENDER ITS BID NON-RESPONSIVE TO OTHER MANDATORY REQUIREMENTS.

- (c) Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.
- (d) The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2022-03-29) Standard Instructions – Goods or Services – Competitive Requirements nor Canada's right to request or accept any information during the solicitation period or after bid solicitation closing in circumstances where the bid solicitation expressly provides for this right, or in the circumstances described in subsection (c).
- (e) Canada will send any Notice or CAR by any method Canada chooses, in its absolute discretion. The Bidder must submit its response by the method stipulated in the Notice or CAR. Responses are deemed to be received by Canada at the date and time they are delivered to Canada by the method and at the address specified in the Notice or CAR. An email response permitted by the Notice or CAR is deemed received by Canada on the date and time it is received in Canada's email inbox at Canada's email address specified in the Notice or CAR. A Notice or CAR sent by Canada to the Bidder at any address provided by the Bidder in or pursuant to the Bid is deemed received by the Bidder on the date it is sent by Canada. Canada is not responsible for late receipt by Canada of a response, however caused.

#### **4.1.1.2 Phase I: Financial Bid**

- (a) After the closing date and time of this bid solicitation, Canada will examine the Bid to determine whether it includes a Financial Bid and whether any Financial Bid includes all information required by the solicitation. Canada's review in Phase I will be limited to identifying whether any information that is required under the bid solicitation to be included in the Financial Bid is missing from the Financial Bid. This review will not assess whether the Financial Bid meets any standard or is responsive to all solicitation requirements.
- (b) Canada's review in Phase I will be performed by officials of the Department of Public Works and Government Services.
- (c) If Canada determines, in its absolute discretion that there is no Financial Bid or that the Financial Bid is missing all of the information required by the bid solicitation to be included in the Financial Bid, then the Bid will be considered non-responsive and will be given no further consideration.
- (d) For Bids other than those described in c), Canada will send a written notice to the Bidder ("Notice") identifying where the Financial Bid is missing information. A Bidder, whose Financial Bid has been found responsive to the requirements that are reviewed at Phase I, will not receive a Notice. Such Bidders shall not be entitled to submit any additional information in respect of their Financial Bid.
- (e) The Bidders who have been sent a Notice shall have the time period specified in the Notice (the "Remedy Period") to remedy the matters identified in the Notice by providing to Canada, in writing, additional information or clarification in response to the Notice. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the Notice.

- (f) In its response to the Notice, the Bidder will be entitled to remedy only that part of its Financial Bid which is identified in the Notice. For instance, where the Notice states that a required line item has been left blank, only the missing information may be added to the Financial Bid, except that, in those instances where the addition of such information will necessarily result in a change to other calculations previously submitted in its Financial Bid, (for example, the calculation to determine a total price), such necessary adjustments shall be identified by the Bidder and only these adjustments shall be made. All submitted information must comply with the requirements of this solicitation.
- (g) Any other changes to the Financial Bid submitted by the Bidder will be considered to be new information and will be disregarded. There will be no change permitted to any other Section of the Bidder's Bid. Information submitted in accordance with the requirements of this solicitation in response to the Notice will replace, in full, **only** that part of the original Financial Bid as is permitted above, and will be used for the remainder of the bid evaluation process.
- (h) Canada will determine whether the Financial Bid is responsive to the requirements reviewed at Phase I, considering such additional information or clarification as may have been provided by the Bidder in accordance with this Section. If the Financial Bid is not found responsive for the requirements reviewed at Phase I to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase I to the satisfaction of Canada, will receive a Phase II review.

#### **4.1.1.3 Phase II: Technical Bid**

- (a) Canada's review at Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible Mandatory Criterion. This review will not assess whether the Technical Bid meets any standard or is responsive to all solicitation requirements. Eligible Mandatory Criteria are all mandatory technical criteria that are identified in this solicitation as being subject to the PBCP. Mandatory technical criteria that are not identified in the solicitation as being subject to the PBCP, will not be evaluated until Phase III.
- (b) Canada will send a written notice to the Bidder (Compliance Assessment Report or "CAR") identifying any Eligible Mandatory Criteria that the Bid has failed to meet. A Bidder whose Bid has been found responsive to the requirements that are reviewed at Phase II will receive a CAR that states that its Bid has been found responsive to the requirements reviewed at Phase II. Such Bidder shall not be entitled to submit any response to the CAR.
- (c) A Bidder shall have the period specified in the CAR (the "Remedy Period") to remedy the failure to meet any Eligible Mandatory Criterion identified in the CAR by providing to Canada in writing additional or different information or clarification in response to the CAR. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the CAR.
- (d) The Bidder's response must address only the Eligible Mandatory Criteria listed in the CAR as not having been achieved, and must include only such information as is necessary to achieve such compliance. Any additional information provided by the Bidder which is not necessary to achieve such compliance will not be considered by Canada, except that, in those instances where such a response to the Eligible Mandatory Criteria specified in the CAR will necessarily result in a consequential change to other parts of the Bid, the Bidder shall identify such additional changes, provided that its response must not include any change to the Financial Bid.
- (e) The Bidder's response to the CAR should identify in each case the Eligible Mandatory Criterion in the CAR to which it is responding, including identifying in the corresponding section of the original Bid, the wording of the proposed change to that section, and the wording and location in the Bid of any other consequential changes that necessarily result from such change. In respect of any such consequential change, the Bidder must include a

rationale explaining why such consequential change is a necessary result of the change proposed to meet the Eligible Mandatory Criterion. It is not up to Canada to revise the Bidder's Bid, and failure of the Bidder to do so in accordance with this subparagraph is at the Bidder's own risk. All submitted information must comply with the requirements of this solicitation.

- (f) Any changes to the Bid submitted by the Bidder other than as permitted in this solicitation, will be considered to be new information and will be disregarded. Information submitted in accordance with the requirements of this solicitation in response to the CAR will replace, in full, **only** that part of the original Bid as is permitted in this Section.
- (g) Additional or different information submitted during Phase II permitted by this section will be considered as included in the Bid, but will be considered by Canada in the evaluation of the Bid at Phase II only for the purpose of determining whether the Bid meets the Eligible Mandatory Criteria. It will not be used at any Phase of the evaluation to increase or decrease any score that the original Bid would achieve without the benefit of such additional or different information. For instance, an Eligible Mandatory Criterion that requires a mandatory minimum number of points to achieve compliance will be assessed at Phase II to determine whether such mandatory minimum score would be achieved with such additional or different information submitted by the Bidder in response to the CAR. If so, the Bid will be considered responsive in respect of such Eligible Mandatory Criterion, and the additional or different information submitted by the Bidder shall bind the Bidder as part of its Bid, but the Bidder's original score, which was less than the mandatory minimum for such Eligible Mandatory Criterion, will not change, and it will be that original score that is used to calculate any score for the Bid.
- (h) Canada will determine whether the Bid is responsive for the requirements reviewed at Phase II, considering such additional or different information or clarification as may have been provided by the Bidder in accordance with this Section. If the Bid is not found responsive for the requirements reviewed at Phase II to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase II to the satisfaction of Canada, will receive a Phase III evaluation.

#### **4.1.1.4 Phase III: Final Evaluation of the Bid**

- (a) In Phase III, Canada will complete the evaluation of all Bids found responsive to the requirements reviewed at Phase II. Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) A Bid is non-responsive and will receive no further consideration if it does not meet all mandatory evaluation criteria of the solicitation.

## **4.2 Technical Evaluation**

### **Mandatory Technical Criteria:**

- (i) Each bid will be reviewed for compliance with the mandatory requirements of the bid solicitation. Any element of the bid solicitation that is identified specifically with the words "must" or "mandatory" is a mandatory requirement. Bids that do not comply with each and every mandatory requirement will be declared non-responsive and be disqualified.
  - (ii) The mandatory technical criteria are described in Attachment 4.1
  - (iii) If the Phased Bid Compliance Process applies, it will apply to all mandatory technical criteria.
- (a) **Point-Rated Technical Criteria:**
- (i) Each bid will be rated by assigning a score to the rated requirements, which are identified in the bid solicitation by the word "rated" or by reference to a score. Bidders who fail to



submit complete bids with all the information requested by this bid solicitation will be rated accordingly.

- (ii) The rated requirements are described in Attachment 4.1

(b) **Number of Resources Evaluated:**

Professional Resources will only be assessed after contract award once specific tasks are requested of the Contractor. After contract award, the Task Authorization process will be in accordance with Part 7 – Resulting Contract Clauses, the Article titled “Task Authorization”. When a Task Authorization Form (TA Form) is issued, the Contractor will be requested to propose a resource to satisfy the specific requirement based on the TA Form’s Statement of Work. The proposed resource will then be assessed against the criteria identified in the Contract’s Statement of Work in accordance with Appendix A of Annex A.

(c) **Reference Checks:**

- (i) Whether or not to conduct reference checks is discretionary. However, if PWGSC chooses to conduct reference checks for any given rated or mandatory requirement, it will check the references for that requirement for all bidders who have not, at that point, been found non-responsive.
- (ii) For reference checks, Canada will conduct the reference check in writing by email. Canada will send all email reference check requests to contacts supplied by all the Bidders on the same day using the email address provided in the bid. Canada will not award any points and/or a bidder will not meet the mandatory experience requirement (as applicable) unless the response is received within 5 working days of the date that Canada's email was sent.
- (iii) On the third working day after sending out the reference check request, if Canada has not received a response, Canada will notify the Bidder by email, to allow the Bidder to contact its reference directly to ensure that it responds to Canada within 5 working days. If the individual named by a Bidder is unavailable when required during the evaluation period, the Bidder may provide the name and email address of an alternate contact person from the same customer. Bidders will only be provided with this opportunity once for each customer, and only if the originally named individual is unavailable to respond (i.e., the Bidder will not be provided with an opportunity to submit the name of an alternate contact person if the original contact person indicates that he or she is unwilling or unable to respond). The 5 working days will not be extended to provide additional time for the new contact to respond..
- (iv) Wherever information provided by a reference differs from the information supplied by the Bidder, the information supplied by the reference will be the information evaluated.
- (v) Points will not be allocated and/or a bidder will not meet the mandatory experience requirement (as applicable) if (1) the reference customer states he or she is unable or unwilling to provide the information requested, or (2) the customer reference is not a customer of the Bidder itself (for example, the customer cannot be the customer of an affiliate of the Bidder instead of being a customer of the Bidder itself). Nor will points be allocated or a mandatory met if the customer is itself an affiliate or other entity that does not deal at arm's length with the Bidder.

#### **4.3 Financial Evaluation**

- (a) There are two possible financial evaluation methods for this requirement. The first method will be used if three or more bids are determined responsive (see (b) Financial Evaluation - Method A

below). The second method will be used if fewer than three bids are determined responsive (see (c) Financial Evaluation - Method B below).

- (b) **Financial Evaluation - Method A:** The following financial evaluation method will be used if three or more bids are determined responsive:

- (i) **Calculation of Total Bid Price:** The financial evaluation will be conducted using the pricing tables completed by the Bidders. A financial calculation will occur for each Bidder by multiplying its firm per diem rates, for the Initial Contract Period and the option period(s) with the estimated number of days of work for each period, for all the Resource Categories, Software Licenses and Annual Maintenance and Support stated in Attachment 4.2 Pricing Schedule. The sum of such rates will constitute the Total Bid Price for that Bidder.

- (c) **Financial Evaluation - Method B:** The following financial evaluation method will be used if less than three bids are determined responsive:

- (i) **Calculation of Total Bid Price:** The financial evaluation will be conducted using the pricing tables completed by the Bidders. A financial calculation will occur for each Bidder by multiplying its firm per diem rates, for the Initial Contract Period and the option period(s) with the estimated number of days of work for each period, for all the Resource Categories, Software Licenses and Annual Maintenance and Support stated in Attachment 4.2 Pricing Schedule. The sum of such rates will constitute the Total Bid Price for that Bidder

- (d) **Substantiation of Professional Services Rates**

In Canada's experience, bidders will from time to time propose rates at the time of bidding for one or more categories of resources that they later refuse to honour, on the basis that these rates do not allow them to recover their own costs and/or make a profit. When evaluating the rates bid for professional services, Canada may, but will have no obligation to, require price support in accordance with this Article. If Canada requests price support, the Bidder must provide the following information:

- (i) an invoice (referencing a contract serial number or other unique contract identifier) that shows that the Bidder has provided and invoiced a customer (with whom the Bidder deals at arm's length) for services performed for that customer similar to the services that would be provided [optional - insert: "in the National Capital Region" or other relevant region for the resource category being assessed, if the prices vary greatly from region to region; note, however, that this could be the basis for a complaint based on geographic discrimination, and you should seek legal advice if any questions are raised by bidders regarding this issue] in the relevant resource category, where those services were provided for at least three months within the eighteen months before the bid solicitation closing date, and the fees charged were equal to or less than the rate offered to Canada;
- (ii) in relation to the invoice in (i), evidence from the Bidder's customer that the services identified in the invoice include at least 50% of the tasks listed in the Statement of Work for the category of resource being assessed for an unreasonably low rate. This evidence must consist of either a copy of the contract (which must describe the services to be provided and demonstrate that at least 50% of the tasks to be performed are the same as those to be performed under the Statement of Work in this bid solicitation) or the customer's signed certification that the services subject to the charges in the invoice included at least 50% of the same tasks to be performed under the Statement of Work in this bid solicitation; and
- (iii) in respect of each contract for which an invoice is submitted as substantiation, a résumé for the resource that provided the services under that contract that demonstrates that, in relation to the resource category for which the rates are being substantiated, the resource would meet the mandatory requirements and achieve any required pass mark for any rated criteria; and

- (iv) the name, telephone number and, if available, e-mail address of a contact person at the customer who received each invoice submitted under (i), so that Canada may verify any information provided by the Bidder.

Once Canada requests substantiation of the rates bid for any resource category, it is the sole responsibility of the Bidder to submit information (as described above and as otherwise may be requested by Canada, including information that would allow Canada to verify information with the resource proposed) that will allow Canada to determine whether it can rely, with confidence, on the Bidder's ability to provide the required services at the rates bid. If Canada determines that the information provided by the Bidder does not adequately substantiate the unreasonably low rates, the bid will be declared non-responsive.

**(e) Formulae in Pricing Tables**

If the pricing tables provided to bidders include any formulae, Canada may re-input the prices provided by bidders into a fresh table, if Canada believes that the formulae may no longer be functioning properly in the version submitted by a bidder.

#### **4.4 Basis of Selection**

- (a) A bid must comply with the requirements of the bid solicitation, meet all mandatory evaluation criteria and obtain the required pass marks for the point rated criteria identified in this bid solicitation to be declared responsive.
- (b) The responsive bid that obtains the highest Total Bidder Score will be recommended for award of a contract. For any given Bidder, the greatest possible Total Technical Score is 70 while the greatest possible Total Financial Score is 30.
  - (i) Calculation of Total Technical Score: The Total Technical Score will be computed for each responsive bid by converting the Technical Score obtained for the point-rated technical criteria using the following formula, rounded to two decimal places:
 
$$\frac{\text{Technical Score}}{\text{Maximum Technical Points (bidders, please refer to the maximum technical points in Attachment 4.2)}} \times 70 = \text{Total Technical Score}$$
  - (ii) Calculation of Total Financial Score: The Total Financial Score will be computed for each responsive bid by converting the Financial Score obtained for the financial evaluation using the following formula rounded to two decimal places:
 
$$\frac{\text{Lowest Financial Evaluated Price}}{\text{The Bidder's Financial Evaluated Price}} \times 30 = \text{Total Financial Score}$$
  - (iii) Calculation of the Total Bidder Score: The Total Bidder Score will be computed for each responsive bid in accordance with the following formula:
 
$$\text{Total Technical Score} + \text{Total Financial Score} = \text{Total Bidder Score}$$
- (c) In the event of identical Total Bidder Scores occurring, then the bid with the highest Total Financial Score will become the top-ranked bidder.
- (d) One contract may be awarded in total as a result of this bid solicitation.
- (e) Bidders should note that all contract awards are subject to Canada's internal approvals process, which includes a requirement to approve funding in the amount of any proposed contract. Despite the fact that the Bidder may have been recommended for contract award, a contract will only be awarded if internal approval is granted according to Canada's internal policies. If approval is not granted, no contract will be awarded.

## PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue, whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

### 5.1 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

#### (a) Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html)" list available at the bottom of the page of the Employment and Social Development Canada (ESDC) - Labour's website. (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html> ).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed Attachment, Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed Attachment Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

#### (b) Professional Services Resources

By submitting a bid, the Bidder certifies that, if it is awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives.

- (i) By submitting a bid, the Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by

the Bidder for the requirement is capable of performing the Work described in the resulting contract.

- (ii) If a Bidder has proposed any individual who is not an employee of the Bidder, by submitting a bid, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

**(c) Certification of Language – English Essential**

By submitting a bid, the Bidder certifies that, should it be awarded a contract as result of the bid solicitation, every individual proposed in its bid will be

*Unilingual English* fluent in English. The individual(s) proposed must be able to communicate orally and in writing in English without any assistance and with minimal errors.

**(d) Submission of Only One Bid**

By submitting a bid, the Bidder is certifying that it does not consider itself to be related to any other bidder.

## PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

### Security Requirement

- (a) Before award of a contract, the following conditions must be met:
  - (i) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;
  - (ii) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirements as indicated in Part 7 - Resulting Contract Clauses Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.
- (b) For additional information on security requirements, Bidders should refer to the Contract Security Program of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.
- (c) In the case of a joint venture bidder, each member of the joint venture must meet the security requirements.

## PART 7 - RESULTING CONTRACT CLAUSES

The following clauses apply to and form part of any contract resulting from the bid solicitation.

### 7.1 Requirement

- (a) The three granting agencies NSERC, SSHRC, and CIHR have a requirement for configuration accelerators and services to transition from multiple legacy grants management systems to a unified cloud solution on Microsoft Dynamics 365 Power Platform.
- (b) \_\_\_\_\_ (the "**Contractor**") agrees to supply to the Client the services described in the Contract, including the Statement of Work, in accordance with, and at the prices set out in, the Contract. This includes providing professional services as and when requested by Canada, to one or more locations to be designated by Canada, excluding any locations in areas subject to any of the Comprehensive Land Claims Agreements.
- (c) **Client:** Under the Contract, the "**Client**" is \_\_\_\_\_.
- (d) **Reorganization of Client:** The Contractor's obligation to perform the Work will not be affected by (and no additional fees will be payable as a result of) the renaming, reorganization, reconfiguration, or restructuring of any Client. The reorganization, reconfiguration and restructuring of the Client includes the privatization of the Client, its merger with another entity, or its dissolution, where that dissolution is followed by the creation of another entity or entities with mandates similar to the original Client. In connection with any form of reorganization, Canada may designate another department or government body as the Contracting Authority or Technical Authority, as required to reflect the new roles and responsibilities associated with the reorganization.
- (e) **Defined Terms:** Words and expressions defined in the General Conditions or Supplemental General Conditions and used in the Contract have the meanings given to them in the General Conditions or Supplemental General Conditions. Any reference to an Identified User in the Supply Arrangement is a reference to the Client. Also, any reference to a "deliverable" or "deliverables" includes all documentation outlined in this Contract. A reference to a "local office" of the Contractor means an office having at least one full time employee that is not a shared resource working at that location.

### 7.2 Task Authorization

- (a) **As-and-when-requested Task Authorizations:** The Work or a portion of the Work to be performed under the Contract will be on an "as-and-when-requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract. The Contractor must not commence work until a validly issued TA has been issued by Canada and received by the Contractor. The Contractor acknowledges that any work performed before such issuance and receipt will be done at the Contractor's own risk.
- (b) **Form and Content of draft Task Authorization:**
  - (i) The Technical Authority will provide the Contractor with a description of the task in a draft Task Authorization using the form specified in Appendix B to Annex A.
  - (ii) The draft Task Authorization will contain the details of the activities to be performed, and must also contain the following information:
    - (A) the contract number;
    - (B) the task number;

- (C) The date by which the Contractor's response must be received (which will appear in the draft Task Authorization, but not the issued Task Authorization);
- (D) the categories of resources and the number required;
- (E) a description of the work for the task outlining the activities to be performed and identifying any deliverables (such as reports);
- (F) the start and completion dates;
- (G) any option(s) to extend initial end date (if applicable);
- (H) milestone dates for deliverables and payments (if applicable);
- (I) the number of person-days of effort required;
- (J) whether the work requires on-site activities and the location;
- (K) the language profile of the resources required;
- (L) the level of security clearance required of resources;
- (M) the price payable to the Contractor for performing the task, with an indication of whether it is a firm price or a maximum TA price (and, for maximum price task authorizations, the TA must indicate how the final amount payable will be determined; where the TA does not indicate how the final amount payable will be determined, the amount payable is the amount, up to the maximum, that the Contractor demonstrates was actually worked on the project, by submitting time sheets filled in at the time of the work by the individual resources to support the charges); and
- (N) any other constraints that might affect the completion of the task.

(c) **Contractor's Response to Draft Task Authorization:** The Contractor must provide to the Technical Authority, within 2 working days of receiving the draft Task Authorization or within any longer time period specified in the draft TA, a quotation with the proposed total price for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract, as well as its corresponding proposed resource(s) in accordance with Appendix A to Annex A of the Contract. The Contractor's quotation must be based on the rates set out in the Contract. The Contractor will not be paid for preparing or providing its response or for providing other information required to prepare and validly issue the TA.

(d) **Task Authorization Limit and Authorities for Validly Issuing Task Authorizations:**

- (i) To be validly issued, a TA must include the following signatures:
  - (A) for any TA, inclusive of revisions, with a value less than or equal to \$ 400,000.00 (excluding Applicable Taxes), the TA must be signed by:
    - (1) the Technical Authority; and
    - (2) a representative from NSERC; and
    - (3) the Contractor.
  - (B) for any TA, inclusive of revisions, with a value greater than this amount, a TA must include the following signatures:
    - (1) the Technical Authority; and
    - (2) a representative from NSERC;
    - (3) the Contractor; and
    - (4) the Contracting Authority.



Any TA that does not bear the appropriate signatures is not validly issued by Canada. Any work performed by the Contractor without receiving a validly issued TA is done at the Contractor's own risk. If the Contractor receives a TA that is not appropriately signed, the Contractor must notify the Contracting Authority. By providing written notice to the Contractor, the Contracting Authority may suspend the Client's ability to issue TA's at any time, or reduce the dollar value threshold described in sub article (A) above; any suspension or reduction notice is effective upon receipt.

(e) **Periodic Usage Reports:**

- (i) The Contractor must compile and maintain records on its provision of services to the federal government under Task Authorizations validly issued under the Contract. The Contractor must provide this data to Canada in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "NIL" report. The data must be submitted on a quarterly basis to the Contracting Authority. From time to time, the Contracting Authority may also require an interim report during a reporting period.
- (ii) The quarterly periods are defined as follows:
  - (A) 1<sup>st</sup> quarter: April 1 to June 30;
  - (B) 2<sup>nd</sup> quarter: July 1 to September 30;
  - (C) 3<sup>rd</sup> quarter: October 1 to December 31; and
  - (D) 4<sup>th</sup> quarter: January 1 to March 31.

The data must be submitted to the Contracting Authority no later than 30 calendar days after the end of the reporting period.
- (iii) Each report must contain the following information for each validly issued TA (as amended)
  - (A) the Task Authorization number and the Task Authorization Revision number(s), if applicable;
  - (B) a title or a brief description of each authorized task;
  - (C) the name, Resource category of each resource involved in performing the TA, as applicable;
  - (D) the total estimated cost specified in the validly issued TA of each task, exclusive of Applicable Taxes;
  - (E) the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;
  - (F) the start and completion date for each authorized task; and
  - (G) the active status of each authorized task, as applicable (e.g., indicate whether work is in progress or if Canada has cancelled or suspended the TA, etc.).
- (iv) Each report must also contain the following cumulative information for all the validly issued TA's (as amended)
  - (A) the amount, exclusive of Applicable Taxes, specified in the Contract (as last amended, as applicable) as Canada's total liability to the Contractor for all validly issued TA's; and
  - (B) the total amount, exclusive of Applicable Taxes, expended to date against all validly issued TA's.

- (f) **Consolidation of TA's for Administrative Purposes:** The Contract may be amended from time to time to reflect all validly issued Task Authorizations to date, to document the Work performed under those TA's for administrative purposes.

### 7.3 Minimum Work Guarantee

- (a) In this clause,
- (i) **"Maximum Contract Value"** means the amount specified in the **"Limitation of Expenditure"** clause set out in the Contract; and
  - (ii) **"Minimum Contract Value"** means \$20,000.00 (excluding Applicable Taxes).
- (b) Canada's obligation under the Contract is to request Work in the amount of the Minimum Contract Value or, at Canada's option, to pay the Contractor at the end of the Contract in accordance with sub-article (c), subject to sub-article (d). In consideration of such obligation, the Contractor agrees to stand in readiness throughout the Contract Period to perform the Work described in the Contract. Canada's maximum liability for work performed under the Contract must not exceed the Maximum Contract Value, unless an increase is authorized in writing by the Contracting Authority.
- (c) In the event that Canada does not request work in the amount of the Minimum Contract Value during the Contract Period, Canada must pay the Contractor the difference between the Minimum Contract Value and the total cost of the Work requested.
- (d) Canada will have no obligation to the Contractor under this article if Canada terminates the entire Contract
- (i) for default;
  - (ii) for convenience as a result of any decision or recommendation of a tribunal or court that the contract be cancelled, re-tendered or awarded to another supplier; or
  - (iii) for convenience within ten business days of Contract award.

### 7.4 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

(a) **General Conditions:**

- (i) 2035 (2022-05-12) General Conditions - Higher Complexity - Services, apply to and form part of the Contract.

With respect to Section 30 - Termination for Convenience, of General Conditions 2035, Subsection 04 is deleted and replaced with the following Subsections 04, 05 and 06:

4. The total of the amounts, to which the Contractor is entitled to be paid under this section, together with any amounts paid, due or becoming due to the Contractor must not exceed the Contract Price.
5. Where the Contracting Authority terminates the entire Contract and the Articles of Agreement include a Minimum Work Guarantee, the total amount to be paid to the Contractor under the Contract will not exceed the greater of:
  - (a) the total amount the Contractor may be paid under this section, together with any amounts paid, becoming due other than payable under the Minimum Work Guarantee, or due to the Contractor as of the date of termination, or
  - (b) the amount payable under the Minimum Work Guarantee, less any amounts paid, due or otherwise becoming due to the Contractor as of the date of termination.
6. The Contractor will have no claim for damages, compensation, loss of profit, allowance arising out of any termination notice given by Canada under this section except to the

extent that this section expressly provides. The Contractor agrees to repay immediately to Canada the portion of any advance payment that is unliquidated at the date of the termination.

**(b) Supplemental General Conditions:**

The following Supplemental General Conditions:

- (i) 4002 (2010-08-16) Supplemental General Conditions - Software Development or Modification Services;
- (ii) 4003 (2010-08-16) Licensed Software
- (iii) 4004 (2013-04-25) Maintenance and Support Services for Licensed Software
- (iv) 4006 (2010-08-16) Supplemental General Conditions - Contractor to Own Intellectual Property Rights in Foreground Information;
- (v) 4008 (2008-12-12) Supplemental General Conditions - Personal Information; apply to and form part of the Contract.
- (vi) A9122C(2008-05-12), Protection and Security of Data Stored in Databases

**7.5 Security Requirement.**

The following security requirements **SRCL Common # 06** and related clauses provided by the Contract Security Program) as set out under Annex "B" to the Supply Arrangement EN537-05IT01, applies to and forms part of the Contract.

1. The contractor/offeror must, at all times during the performance of the contract/standing offer, hold a valid designated organization screening (DOS), issued by the Contract Security Program (CSP), Public Works and Government Services Canada (PWGSC)
2. The contractor/offeror personnel requiring access to **protected** information, assets or sensitive work site(s) must **each** hold a valid **reliability status**, granted or approved by the CSP, PWGSC
3. The contractor/offeror **must not** remove any **protected** information or assets from the identified work site(s), and the contractor/offeror must ensure that its personnel are made aware of and comply with this restriction
4. Subcontracts which contain security requirements are **not** to be awarded without the prior written permission of the CSP, PWGSC
5. The contractor/offeror must comply with the provisions of the:
  - a. Security Requirements Check List and security guide, attached at Annex C
  - b. Contract Security Manual (latest edition)

**7.6 Contract Period**

**(a) Contract Period:** The "**Contract Period**" is the entire period of time during which the Contractor is obliged to perform the Work, which includes:

- (i) The "**Initial Contract Period**", which begins on the date the Contract is awarded and ends 3 years later; and
- (ii) The period during which the Contract is extended, if Canada chooses to exercise any options set out in the Contract.

**(b) Option to Extend the Contract:**

- (i) The Contractor grants to Canada the irrevocable option to extend the term of the Contract by up to two additional one-year periods under the same terms and conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions set out in the Basis of Payment.
- (ii) Canada may exercise this option at any time by sending a written notice to the Contractor before the expiry date of the Contract. The option may only be exercised by the

Contracting Authority, and will be evidenced, for administrative purposes only, through a contract amendment.

## **7.7 Authorities**

### **(a) Contracting Authority**

The Contracting Authority for the Contract is:

**Michael Beaudoin**

Supply Specialist

Informatics Professional Services Division

Public Services and Procurement Canada (PSPC)

Les Terrasses de la Chaudière 10, rue Wellington, 4<sup>th</sup>/Floor Gatineau, Québec K1A 0S5

Telephone 613-859-0841

[michael.beaudoin@pwgsc.gc.ca](mailto:michael.beaudoin@pwgsc.gc.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

### **(b) Technical Authority**

The Technical Authority for the Contract is:

**Adam Eikenberry,**

Director, Architecture & Integration, Corporate Services Champion

Tri-agency grants management solution initiative (TGMS)

Natural sciences and engineering research council of Canada

Social sciences and humanities research council of Canada

Canadian institutes of health research

Government of Canada

Tel: 343-548-3268

[adam.eikenberry@cihr-irsc.gc.ca](mailto:adam.eikenberry@cihr-irsc.gc.ca)

The Technical Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

### **(c) Contractor's Representative**

## **7.8 Proactive Disclosure of Contracts with Former Public Servants**

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental web sites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

## **7.9 Payment**

### **(a) Basis of Payment**

- (i) Licensed Software:** For the license(s) to use the Licensed Software (including delivery, installation, integration and configuration of the Licensed Software and the Software Documentation in accordance with the Contract, Canada will pay the Contractor the firm

price(s) set out in Annex B, (FOB destination), including all customs duties, Applicable Taxes extra. The firm prices include the warranty during the Software Warranty Period.

- (ii) **Maintenance and Support for Licensed Software:** For maintenance and support services throughout the initial Software Support Period, in accordance with the Contract, Canada will pay the Contractor, in advance the firm price(s) set out in Annex B, (FOB destination), including all customs duties, Applicable Taxes extra. If additional licenses to use the Licensed Software are purchased during the Software Support Period, Canada will pay the applicable price for maintenance and support of that number of licenses divided by 12, then multiplied by the number of months or partial months remaining in the Software Support Period (in order to reflect the fact that maintenance and support services will only be provided for those licenses for a partial year
- (iii) **Professional Services provided under a Task Authorization with a Maximum Price:** For professional services requested by Canada, in accordance with a validly issued Task Authorization, Canada will pay the Contractor, in arrears, up to the Maximum Price for the TA, for actual time worked and any resulting deliverables in accordance with the firm all-inclusive per diem rates set out in Annex B, Basis of Payment, Applicable Taxes extra. Partial days will be prorated based on actual hours worked based on a 7.5-hour workday.
- (iv) **Professional Services provided under a Task Authorization with a Firm Price:** For professional services requested by Canada, in accordance with a validly issued Task Authorization, Canada will pay the Contractor the firm price set out in the Task Authorization (based on the firm, all-inclusive per diem rates set out in Annex B, Applicable Taxes extra.
- (v) **Travel and Living Expenses – National Joint Council Travel Directive** The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal and private vehicle expenses provided in Appendices B, C and D of the National Joint Council Travel Directive and with the other provisions of the directive referring to “travellers”, rather than those referring to “employees”. All travel must have the prior authorization of the Technical Authority. Travel requests will only be considered for a work location which is located more than 100 kilometers from The National Capital Region. The Contractor will be paid for actual time spent travelling at half the hourly rate. The hourly rate will be determined by dividing the firm per diem rate set out in Annex B by 7.5 hours. All payments are subject to government audit.
- (vi) **Competitive Award:** The Contractor acknowledges that the Contract has been awarded as a result of a competitive process. No additional charges will be allowed to compensate for errors, oversights, misconceptions or underestimates made by the Contractor when bidding for the Contract.
- (vii) **Contractor’s Firm Per Diem Rates:** The Contractor agrees that the rates set out in Annex B remain firm throughout the Contract Period, except as may be provided for in the express terms of the contract. In reference to Article 18(1) of SACC General Conditions 2035, the Contractor acknowledges that its obligation to provide services in accordance with the firm rates set out in Annex B is unaffected by the application of any existing law or any new law which may come into effect during the Contract Period.
- (viii) **Professional Services Rates:** In Canada's experience, bidders from time to time propose rates at the time of bidding for one or more Resource Categories that they later refuse to honour, on the basis that these rates do not allow them to recover their own costs and/or make a profit. This denies Canada of the benefit of the awarded contract. If the Contractor does not respond or refuses to provide an individual with the qualifications described in the Contract within the time described in the Contract (or proposes instead to provide someone from an alternate category at a different rate), whether or not

Canada terminates the Contract as a whole or in part or chooses to exercise any of the rights provided to it under the general conditions, Canada may impose sanctions or take other measures in accordance with the PWGSC Vendor Performance Corrective Measure Policy (or equivalent) then in effect, which measures may include an assessment that results in conditions applied against the Contractor to be fulfilled before doing further business with Canada, or full debarment of the Contractor from bidding on future requirements.

(b) **Limitation of Expenditure – Cumulative Total of all Task Authorizations**

- (i) Canada's total liability to the Contractor under the Contract for all validly issued Task Authorizations (TAs), inclusive of any revisions, must not exceed the amount set out on page 1 of the Contract, less any Applicable taxes. With respect to the amount set out on page 1 of the Contract, Customs duties are included and Applicable Taxes are included
- (ii) No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
- (iii) The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
  - (A) when it is 75 percent committed, or
  - (B) 4 months before the contract expiry date, or
  - (C) As soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions, whichever comes first.
- (i) If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Providing this information does not increase Canada's liability.

(c) **Method of Payment for Task Authorizations with a Maximum Price:** For each Task Authorization validly issued under the Contract that contains a maximum price:

- (i) Canada will pay the Contractor no more frequently than once a month in accordance with the Basis of Payment. The Contractor must submit time sheets for each resource showing the days and hours worked to support the charges claimed in the invoice.
- (ii) Once Canada has paid the maximum TA price, Canada will not be required to make any further payment, but the Contractor must complete all the work described in the TA, all of which is required to be performed for the maximum TA price. If the work described in the TA is completed in less time than anticipated, and the actual time worked (as supported by the time sheets) at the rates set out in the Contract is less than the maximum TA price, Canada is only required to pay for the time spent performing the work related to that TA.

(d) **Method of Payment for Task Authorizations with a Firm Price - Lump Sum Payment on Completion:** Canada will pay the Contractor upon completion and delivery of all the Work associated with the validly issued Task Authorization in accordance with the payment provisions of the Contract if:

- (i) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (ii) all such documents have been verified by Canada; and
- (iii) the Work delivered has been accepted by Canada.

- (e) **Firm Price – Milestone Payment:** Canada will make milestone payments in accordance with the schedule of milestones detailed in that TA and the payment provisions in the Contract, if:
- (A) an accurate and complete invoice for milestone payment and any other documents requested by the Contracting Authority have been submitted in accordance with the invoicing instructions provided in the Contract; and
  - (B) all work associated with the milestone and any deliverable requested have been completed, delivered, and accepted by Canada.

(f) **Electronic Payment of Invoices – Contract**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- (i) Visa Acquisition Card;
- (ii) MasterCard Acquisition Card;
- (iii) Direct Deposit (Domestic and International);
- (iv) Electronic Data Interchange (EDI);
- (v) Wire Transfer (International Only);
- (vi) Large Value Transfer System (LVTS) (Over \$25M)

**Note to Bidders:** If applicable, the Electronic Payment Instrument(s) indicated by the Bidder in Attachment or Form “ ” will be included in any resulting contract.

(g) **Time Verification**

Time charged and the accuracy of the Contractor's time recording system are subject to verification by Canada, before or after payment is made to the Contractor. If verification is done after payment, the Contractor must repay any overpayment, at Canada's request.

(h) **Payment Credits**

(i) **Failure to Provide Resource:**

- (A) If the Contractor does not provide a required professional services resource that has all the required qualifications within the time prescribed by the Contract, the Contractor must credit to Canada an amount equal to the per diem rate (based on a 7.5-hour workday) of the required resource for each day (or partial day) of delay in providing the resource, up to a maximum of 10 days.
- (B) **Corrective Measures:** If credits are payable under this Article for two consecutive months or for three months in any 12-month period, the Contractor must submit a written action plan describing measures it will implement or actions it will undertake to eliminate the recurrence of the problem. The Contractor will have five working days to deliver the action plan to the Client and the Contracting Authority and 20 working days to rectify the underlying problem.
- (C) **Termination for Failure to Meet Availability Level:** In addition to any other rights it has under the Contract, Canada may terminate the Contract for default in accordance with the General Conditions by giving the Contractor three months' written notice of its intent, if any of the following apply:
  - (1) the total amount of credits for a given monthly billing cycle reach a level of 10% of the total billing for that month; or
  - (2) the corrective measures required of the Contractor described above are not met.

This termination will be effective when the three month notice period expires, unless Canada determines that the Contractor has implemented the corrective measures to Canada's satisfaction during those three months.

- (ii) **Credits Apply during Entire Contract Period:** The Parties agree that the credits apply throughout the Contract Period.
  - (iii) **Credits represent Liquidated Damages:** The Parties agree that the credits are liquidated damages and represent their best pre-estimate of the loss to Canada in the event of the applicable failure. No credit is intended to be, nor will it be construed as, a penalty.
  - (iv) **Canada's Right to Obtain Payment:** The Parties agree that these credits are a liquidated debt. To collect the credits, Canada has the right to hold back, draw back, deduct or set off from and against any money Canada owes to the Contractor from time to time.
  - (v) **Canada's Rights & Remedies not Limited:** The Parties agree that nothing in this Article limits any other rights or remedies to which Canada is entitled under the Contract (including the right to terminate the Contract for default) or under the law generally.
  - (vi) **Audit Rights:** The Contractor's calculation of credits under the Contract is subject to verification by government audit, at the Contracting Authority's discretion, before or after payment is made to the Contractor. The Contractor must cooperate fully with Canada during the conduct of any audit by providing Canada with access to any records and systems that Canada considers necessary to ensure that all credits have been accurately credited to Canada in the Contractor's invoices. If an audit demonstrates that past invoices contained errors in the calculation of the credits, the Contractor must pay to Canada the amount the audit reveals was required to be credited to Canada, plus interest, from the date Canada remitted the excess payment until the date of the refund (the interest rate is the Bank of Canada's discount annual rate of interest in effect on the date the credit was first owed to Canada, plus 1.25% per year). If, as a result of conducting an audit, Canada determines that the Contractor's records or systems for identifying, calculating or recording the credits are inadequate, the Contractor must implement any additional measures required by the Contracting Authority.
- (i) **No Responsibility to Pay for Work not performed due to Closure of Government Offices**
    - (i) Where the Contractor, its employees, subcontractors, or agents are providing services on government premises under the Contract and those premises are inaccessible because of the evacuation, closure or there are enhanced measures to restrict access to government offices, and as a result no work is performed, Canada is not responsible for paying the Contractor for work that otherwise would have been performed if there had been no evacuation, closure or restricted access.
    - (ii) If, as a result of any strike or lock-out, the Contractor or its employees, subcontractors or agents cannot obtain access to government premises and, as a result, no work is performed, Canada is not responsible for paying the Contractor for work that otherwise would have been performed if the Contractor had been able to gain access to the premises

#### **7.10 Invoicing Instructions**

- (a) The Contractor must submit invoices in accordance with the information required in the General Conditions.
- (b) The Contractor's invoice must include a separate line item for each subparagraph in the Basis of Payment provision, and must show all applicable Task Authorization numbers.



- (c) By submitting invoices, the Contractor is certifying that the goods and services have been delivered and that all charges are in accordance with the Basis of Payment provision of the Contract, including any charges for work performed by subcontractors.
- (d) The Contractor must provide an electronic copy of each invoice to the Technical Authority. On request, the Contractor must provide a copy of any invoices requested by the Contracting Authority.

#### **7.11 Federal Contractors Program for Employment Equity - Default by Contractor**

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

#### **7.12 Applicable Laws**

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in   (*insert the name of the province or territory as specified by the Bidder in its bid, if applicable*).

#### **7.13 Priority of Documents**

If there is a discrepancy between the wording of any documents that appear on the following list, the wording of the document that first appears on the list has priority over the wording of any document that appears later on the list:

- (a) these Articles of Agreement, including any individual SACC clauses incorporated by reference in these Articles of Agreement;
- (b) Supplemental General Conditions, in the following order:
- (c) 4002 (2010-08-16) Supplemental General Conditions - Software Development or Modification Services;
- (d) 4003 (2010-08-16) Licensed Software
- (e) 4004 (2013-04-25) Maintenance and Support Services for Licensed Software
- (f) 4006 (2010-08-16) Supplemental General Conditions - Contractor to Own Intellectual Property Rights in Foreground Information;
- (g) 4008 (2008-12-12) Supplemental General Conditions - Personal Information; apply to and form part of the Contract.
- (h) A9122C (2008-05-12), Protection and Security of Data Stored in Databases
- (i) General Conditions 2035 (2022-05-12) Higher Complexity - Services;
- (j) Annex A Statement of Work, including its Appendices as follows
  - (i) Appendix A to Annex A - Tasking Assessment Procedure;
  - (ii) Appendix B to Annex A - Task Authorization (TA) Form;
  - (iii) Appendix C to Annex A Resource Assessment Criteria and Response Table;
  - (iv) Appendix D to Annex A Certifications at the TA stage;
- (k) Annex , Basis of Payment;
- (l) Annex C, Security Requirements Check List (if applicable - delete if N/A);
- (m) the validly issued Task Authorizations and any required certifications and;
- (n) the Contractor's bid dated \_\_\_\_\_

#### **7.14 Foreign Nationals (Canadian Contractor)**

- (a) SACC Manual clause A2000C (\_\_\_\_\_) *(insert date)* Foreign Nationals (Canadian Contractor)

***Note to Bidders:** Either this clause or the one that follows, whichever applies (based on whether the successful Bidder is a Canadian Contractor or Foreign Contractor), will be included in any resulting contract.*

#### **7.15 Foreign Nationals (Foreign Contractor)**

- (a) SACC Manual clause A2001C (\_\_\_\_\_) *(insert date)* Foreign Nationals (Foreign Contractor)

#### **7.16 Insurance Requirements**

##### **(a) Compliance with Insurance Requirements**

- (i) The Contractor must comply with the insurance requirements specified in this Article. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.
- (ii) The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.
- (iii) The Contractor should forward to the Contracting Authority within ten (10) days after the date of award of the Contract a Certificate of Insurance evidencing the insurance coverage. Coverage must be placed with an Insurer licensed to carry out business in Canada and the Certificate of Insurance must confirm that the insurance policy complying with the requirements is in force. If the Certificate of Insurance has not been completed and submitted as requested, the Contracting Authority will so inform the Contractor and provide the Contractor with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within the time period will constitute a default under the General Conditions. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

##### **(b) Commercial General Liability Insurance**

- (i) The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.
- (ii) The Commercial General Liability policy must include the following:
  - (A) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
  - (B) Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
  - (C) Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.

- (D) Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
- (E) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
- (F) Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
- (G) Employees and, if applicable, Volunteers must be included as Additional Insured.
- (H) Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)
- (I) Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
- (J) Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
- (K) If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
- (L) Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
- (M) Advertising Injury: While not limited to, the endorsement must include coverage for piracy or misappropriation of ideas, or infringement of copyright, trademark, title or slogan.

(c) **Errors and Omissions Liability Insurance**

- (i) The Contractor must obtain Errors and Omissions Liability (a.k.a. Professional Liability) insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature but for not less than \$1,000,000 per loss and in the annual aggregate, inclusive of defence costs.
- (ii) If the Professional Liability insurance is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
- (iii) The following endorsement must be included:  
 Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of cancellation.

**7.17 Limitation of Liability - Information Management/Information Technology**

- (a) This section applies despite any other provision of the Contract and replaces the section of the general conditions entitled "Liability". Any reference in this section to damages caused by the Contractor also includes damages caused by its employees, as well as its subcontractors, agents, and representatives, and any of their employees. This section applies regardless of whether the claim is based in contract, tort, or another cause of action. The Contractor is not liable to Canada with respect to the performance of or failure to perform the Contract, except as described in this section and in any section of the Contract pre-establishing any liquidated damages. The Contractor is only liable for indirect, special or consequential damages to the

extent described in this Article, even if it has been made aware of the potential for those damages.

**(b) First Party Liability:**

- (i) The Contractor is fully liable for all damages to Canada, including indirect, special or consequential damages, caused by the Contractor's performance or failure to perform the Contract that relate to:
  - (A) any infringement of intellectual property rights to the extent the Contractor breaches the section of the General Conditions entitled "Intellectual Property Infringement and Royalties";
  - (B) physical injury, including death.
- (ii) The Contractor is liable for all direct damages caused by the Contractor's performance or failure to perform the Contract affecting real or tangible personal property owned, possessed, or occupied by Canada.
- (iii) Each of the Parties is liable for all direct damages resulting from its breach of confidentiality under the Contract. Each of the Parties is also liable for all indirect, special or consequential damages in respect of its unauthorized disclosure of the other Party's trade secrets (or trade secrets of a third party provided by one Party to another under the Contract) relating to information technology.
- (iv) The Contractor is liable for all direct damages relating to any encumbrance or claim relating to any portion of the Work for which Canada has made any payment. This does not apply to encumbrances or claims relating to intellectual property rights, which are addressed under (i)(A) above.
- (v) The Contractor is also liable for any other direct damages to Canada caused by the Contractor's performance or failure to perform the Contract that relate to:
  - (A) any breach of the warranty obligations under the Contract, up to the total amount paid by Canada (including any applicable taxes) for the goods and services affected by the breach of warranty; and
  - (B) Any other direct damages, including all identifiable direct costs to Canada associated with re-procuring the Work from another party if the Contract is terminated either in whole or in part for default, up to an aggregate maximum for this subparagraph (B) of the greater of .75 times the total estimated cost (meaning the dollar amount shown on the first page of the Contract in the cell titled "Total Estimated Cost" or shown on each call-up, purchase order or other document used to order goods or services under this instrument), or \$1,000,000.00.

In any case, the total liability of the Contractor under subparagraph (v) will not exceed the total estimated cost (as defined above) for the Contract or \$1,000,000.00, whichever is more.
- (vi) If Canada's records or data are harmed as a result of the Contractor's negligence or willful act, the Contractor's only liability is, at the Contractor's own expense, to restore Canada's records and data using the most recent back-up kept by Canada. Canada is responsible for maintaining an adequate back-up of its records and data.

**(c) Third Party Claims:**

- (i) Regardless of whether a third party makes its claim against Canada or the Contractor, each Party agrees that it is liable for any damages that it causes to any third party in connection with the Contract as set out in a settlement agreement or as finally determined by a court of competent jurisdiction, where the court determines that the Parties are jointly and severally liable or that one Party is solely and directly liable to the third party. The amount of the liability will be the amount set out in the settlement

agreement or determined by the court to have been the Party's portion of the damages to the third party. No settlement agreement is binding on a Party unless its authorized representative has approved the agreement in writing.

- (ii) If Canada is required, as a result of joint and several liability or joint and solidarily liable, to pay a third party in respect of damages caused by the Contractor, the Contractor must reimburse Canada by the amount finally determined by a court of competent jurisdiction to be the Contractor's portion of the damages to the third party. However, despite Sub-article (i), with respect to special, indirect, and consequential damages of third parties covered by this Section, the Contractor is only liable for reimbursing Canada for the Contractor's portion of those damages that Canada is required by a court to pay to a third party as a result of joint and several liability that relate to the infringement of a third party's intellectual property rights; physical injury of a third party, including death; damages affecting a third party's real or tangible personal property; liens or encumbrances on any portion of the Work; or breach of confidentiality.
- (iii) The Parties are only liable to one another for damages to third parties to the extent described in this Sub-article (c).

#### **7.18 Joint Venture Contractor**

- (a) The Contractor confirms that the name of the joint venture is [REDACTED] and that it is comprised of the following members:
- (b) With respect to the relationship among the members of the joint venture Contractor, each member agrees, represents and warrants (as applicable) that:
  - (i) [REDACTED] has been appointed as the "representative member" of the joint venture Contractor and has fully authority to act as agent for each member regarding all matters relating to the Contract;
  - (ii) by giving notice to the representative member, Canada will be considered to have given notice to all the members of the joint venture Contractor; and
  - (iii) all payments made by Canada to the representative member will act as a release by all the members.
- (c) All the members agree that Canada may terminate the Contract in its discretion if there is a dispute among the members that, in Canada's opinion, affects the performance of the Work in any way.
- (d) All the members are jointly and severally or solidarily liable for the performance of the entire Contract.
- (e) The Contractor acknowledges that any change in the membership of the joint venture (i.e., a change in the number of members or the substitution of another legal entity for an existing member) constitutes an assignment and is subject to the assignment provisions of the General Conditions.
- (f) The Contractor acknowledges that all security and controlled goods requirements in the Contract, if any, apply to each member of the joint venture Contractor.

<p><b>Note to Bidders:</b> This Article will be deleted if the Bidder awarded the contract is not a joint venture. If the contractor is a joint venture, this clause will be completed with information provided in its bid.</p>
--

#### **7.19 Professional Services - General**

- (a) The Contractor must provide professional services on request as specified in this Contract. All resources provided by the Contractor must meet the qualifications described in the Contract (including those relating to previous experience, professional designation, education, language proficiency and security clearance) and must be competent to provide the required services by any delivery dates described in the Contract.

- (b) If the Contractor fails to deliver any deliverable (excluding delivery of a specific individual) or complete any task described in the Contract on time, in addition to any other rights or remedies available to Canada under the Contract or the law, Canada may notify the Contractor of the deficiency, in which case the Contractor must submit a written plan to the Technical Authority within ten working days detailing the actions that the Contractor will undertake to remedy the deficiency. The Contractor must prepare and implement the plan at its own expense.
- (c) In General Conditions 2035, the Article titled "Replacement of Specific Individuals" is deleted and the following applies instead:

**Replacement of Specific Individuals**

- (i) If the Contractor is unable to provide the services of any specific individual identified in the Contract to perform the services, the Contractor must within five working days of having this knowledge, the individual's departure or failure to commence Work (or, if Canada has requested the replacement, within ten working days of Canada's notice of the requirement for a replacement) provide to the Contracting Authority:
  - (A) the name, qualifications and experience of a proposed replacement immediately available for Work; and
  - (B) security information on the proposed replacement as specified by Canada, if applicable.

The replacement must have qualifications and experience that meet or exceed those obtained for the original resource.

- (ii) Subject to an Excusable Delay, where Canada becomes aware that a specific individual identified under the Contract to provide services has not been provided or is not performing, the Contracting Authority may elect to:
  - (A) exercise Canada's rights or remedies under the Contract or at law, including terminating the Contract in whole or in part for default under the Article titled "Default of the Contractor", or
  - (B) assess the information provided under (c) (i) above or, if it has not yet been provided, require the Contractor to propose a replacement to be rated by the Technical Authority. The replacement must have qualifications and experience that are similar or exceed those obtained for the original resource and be acceptable to Canada. Upon assessment of the replacement, Canada may accept the replacement, exercise the rights in (ii) (A) above, or require another replacement in accordance with this sub-article (c).

Where an Excusable Delay applies, Canada may require (c) (ii) (B) above instead of terminating under the "Excusable Delay" Article. An Excusable Delay does not include resource unavailability due to allocation of the resource to another Contract or project (including those for the Crown) being performed by the Contractor or any of its affiliates.

- (iii) The Contractor must not, in any event, allow performance of the Work by unauthorized replacement persons. The Contracting Authority may order that an original or replacement resource stop performing the Work. In such a case, the Contractor must immediately comply with the order. The fact that the Contracting Authority does not order a resource to stop performing the Work does not relieve the Contractor from its responsibility to meet the requirements of the Contract.
- (iv) The obligations in this article apply despite any changes that Canada may have made to the Client's operating environment.

**7.20 Safeguarding Electronic Media**

- (a) Before using them on Canada's equipment or sending them to Canada, the Contractor must use a regularly updated product to scan electronically all electronic media used to perform the Work

for computer viruses and other coding intended to cause malfunctions. The Contractor must notify Canada if any electronic media used for the Work are found to contain computer viruses or other coding intended to cause malfunctions.

- (b) If magnetically recorded information or documentation is damaged or lost while in the Contractor's care or at any time before it is delivered to Canada in accordance with the Contract, including accidental erasure, the Contractor must immediately replace it at its own expense.

#### **7.21 Representations and Warranties**

The Contractor made statements regarding its own and its proposed resources' experience and expertise in its bid that resulted in the award of the Contract and the issuance of TA's. The Contractor represents and warrants that all those statements are true and acknowledges that Canada relied on those statements in awarding the Contract and adding work to it through TA's. The Contractor also represents and warrants that it has, and all its resources and subcontractors that perform the Work have, and at all times during the Contract Period they will have and maintain, the skills, qualifications, expertise and experience necessary to perform and manage the Work in accordance with the Contract, and that the Contractor (and any resources or subcontractors it uses) has previously performed similar services for other customers.

#### **7.22 Access to Canada's Property and Facilities**

Canada's property, facilities, equipment, documentation, and personnel are not automatically available to the Contractor. If the Contractor would like access to any of these, it is responsible for making a request to the Technical Authority. Unless expressly stated in the Contract, Canada has no obligation to provide any of these to the Contractor. If Canada chooses, in its discretion, to make its property, facilities, equipment, documentation or personnel available to the Contractor to perform the Work, Canada may require an adjustment to the Basis of Payment and additional security requirements may apply.

#### **7.23 Government Property**

Canada agrees to supply the Contractor with the items listed below (the "**Government Property**"). The section of the General Conditions entitled "Government Property" also applies to the use of the Government Property by the Contractor.

#### **7.24 Transition Services at End of Contract Period**

The Contractor agrees that, in the period leading up to the end of the Contract Period, it will make all reasonable efforts to assist Canada in the transition from the Contract to a new contract with another supplier or Government Departments/Agencies. The Contractor agrees that there will be no charge for these services. [in the alternative, delete the final sentence and include something in the Basis of Payment about what can be charged for the transition services]

#### **7.25 Dispute Resolution**

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

## **7.26 Identification Protocol Responsibilities**

The Contractor will be responsible for ensuring that each of its agents, representatives or subcontractors (hereinafter referred to as Contractor Representatives) complies with the following self-identification requirements:

- (e) Contractor Representatives who attend a Government of Canada meeting (whether internal or external to Canada's offices) must identify themselves as Contractor Representatives prior to the commencement of the meeting, to ensure that each meeting participant is aware of the fact that the individual is not an employee of the Government of Canada;
- (f) During the performance of any Work at a Government of Canada site, each Contractor Representative must be clearly identified at all times as being a Contractor Representative; and
- (g) If a Contractor Representative requires the use of the Government of Canada's e-mail system in the performance of the Work, then the individual must clearly identify him or herself as an agent or subcontractor of the Contractor in all electronic mail in the signature block as well as under "Properties." This identification protocol must also be used in all other correspondence, communication, and documentation.
- (h) If Canada determines that the Contractor is in breach of any obligation stated in this Article, upon written notice from Canada the Contractor must submit a written action plan describing corrective measures it will implement to eliminate the recurrence of the problem. The Contractor will have five working days to deliver the action plan to the Client and the Contracting Authority, and twenty working days to rectify the underlying problem.
- (i) In addition to any other rights it has under the Contract, Canada may terminate the Contract for default if the corrective measures required of the Contractor described above are not met.



Tri-Agency Grants Management Solution (TGMS)

RFP Annex A

Statement of Work (SoW)

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## 1 Background

The Natural sciences and engineering research council (NSERC), the Social sciences and humanities research council (SSHRC) and the Canadian institutes of health research (CIHR) are federal granting agencies that support research, research training and innovation in Canadian postsecondary and research institutions. Together, NSERC, SSHRC and CIHR annually award more than \$3 billion of research grant and award funding.

In 2017, the Advisory Panel on Federal Support for Fundamental Science was mandated to conduct a comprehensive review on how to “help ensure that federal support for research is strategic and effective and that it delivers maximum benefits to the research community and the Canadians whose lives are enriched by its discoveries”. In April of 2017, the Advisory Panel tabled their report entitled the “Fundamental Science Review”. This review provided recommendations regarding improvements designed to augment the effectiveness, accountability, and efficiency of how such research would be funded.

The recommendations contained in the Fundamental Science Review resulted in a strategic response from the three agencies for an increasing emphasis on tri-agency initiatives and harmonization, specifically a collaboration on the development of a common platform for the effective planning, management, administration, and benefits realization of the agencies grants and awards funding.

Independent in their governance and authorities, the three agencies are collaborating on efforts to modernize their grants and awards management approaches. This collaboration is referred to as the Tri-agency grants management solution (TGMS) project.

While the steps and most of the activities in grants management and administration across the three agencies are similar, neither processes nor data are harmonized. Consequently, current grants management systems treat, capture, and use data differently. Many of these systems also rely on out-dated and inflexible technology. The existing grants management systems are disparate, complex, burdensome to use, and lack modern features and consistent functionality. For the research community, excessive time spent on the granting process by applicants, reviewers and their institutions’ research grant officers occurs at the expense of actual research work. Going forward, this reduced scientific productivity will become more problematic as the research community responds to Canada’s evolving research agenda.

At the three agencies, staff in administrators and analysts positions are unable to perform their tasks efficiently and effectively. Aging and rigid technology increases the risk of error and creates duplication of effort and workflow inefficiencies in administering the funding process. These issues as well as the lack of harmonized data impedes the data collection, sharing, analysis and reporting activities that the three agencies must perform to be able to identify new opportunities for funding research; adapt to the changing needs of the research community, and report on the immense value of research to Canada.

The three agencies need a new grants management solution to improve the client experience for applicants, reviewers, grant officers and agency staff; to increase flexibility and responsiveness to meet Government of Canada priorities and agencies' demands; to optimize the grants management process to improve the efficiency of grants management and administration, and to strengthen the credibility and reinforce the reputation of the three granting agencies as leaders in research.

## **1.1 Overall Procurement Strategy for TGMS**

The procurement strategy for TGMS consist of a two-phase approach. Canada is conducting two separate competitive services procurement to support this project.

### **1.1.1 Procurement Phase 1 (Complete)**

The first procurement (Phase 1) was executed through Shared Services Canada's Cloud Brokering Service to meet the foundational platform requirements of TGMS through the delivery of enabling technology by leveraging a Software as a Service (SaaS). Among other requirements, one of the key capabilities sought was the compatibility, flexibility, and extensibility of the SaaS to enable, make use and exploit existing grants management templates and accelerators.

Phase 1 has concluded with the selection of Microsoft to provide Dynamics 365 Power Platform as the cloud platform to support the development, testing, integration, and production environments that will be used for the implementation of the TGMS.

### **1.1.2 Procurement Phase 2 (Current phase)**

This second phase of procurement (Phase 2) is to establish a service contract for the configuration, deployment, operation, and support services required to deliver the new grants management services, built upon Microsoft Dynamics 365 Power Platform. Among other requirements, it is important that the service provider has demonstrable experience in leveraging grants management related templates and accelerators to extend the capabilities of the platform procured at Phase 1.

## 2 Requirement

The three granting agencies NSERC, SSHRC, and CIHR require configuration accelerators and services to transition from multiple legacy grants management systems to a unified cloud solution on Microsoft Dynamics 365 Power Platform.

### 2.1 Key Requirements:

#### 2.1.1 Grants management templates or platform configuration accelerators

The Contractor is required to provide and leverage pre-existing intellectual property to enhance and accelerate the delivery of grants management capabilities upon the Customer Relationship Management (CRM) Microsoft Dynamics 365 Power Platform.

#### 2.1.2 Configuration of the templates or platform accelerators to deliver the business capabilities

The Contractor will provide professional resources to work alongside agency resources to deliver, using an Agile delivery methodology, the full business requirements summarized in 3.1 TGMS business capabilities and outlined in detail in Appendix C – Functional Requirements over the period of the three-year contract. Knowledge transfer between vendor and agency staff throughout the engagement will be critical to allow implementation of requirements in the appropriate business context. This will also ensure agency staff gain the experience necessary to implement future requirement refinements beyond the scope of this initial work.

#### 2.1.3 Supplementary professional services

Beyond the core professional services required to fulfill the needs outlined in 2.1.2, the agencies require the following professional services categories on an as-and-when needed basis.

Reference	Category	Estimated Quantity	Experience Level 1 (<5 years)	Experience Level 2 (5-10 years)	Experience Level 3 (>10 years)
1.	Application Integration Architect	0-1		x	x
2.	Application Technology / COTS Development Specialist	0-1		x	x
3.	BI Programmer/Software	1-2	x	x	x
4.	Test Coordinator	1-2		x	x
5.	Tester	1	x	x	x
6.	Database Modeler	0-1		x	x
7.	Technology / Technical Architect	0-1		x	x
8.	Project Coordinator	1-2	x	x	x
9.	Project Leader	1		x	x
10.	Project Manager	1		x	x
11.	System Integration Project Manager	1		x	x
12.	Project Executive	1		x	x

13.	Quality Assurance	1	x	x	x
14.	Enterprise Architect	1		x	x
15.	Information Architect	0-1		x	x
16.	Security Architect	0-1		x	x
17.	Special Advisor	0-1		x	X
18.	Business Transformation Architect	0-1	x		
19.	System Analyst	0-1	x		
20.	Web Architect	0-1	x		

*Table 2.1.3-1: Professional services categories*

## 2.1.4 Deliverables

### 2.1.4.1 Business Capabilities

The functional requirements outlined in Appendix C – Functional Requirements represent the minimum set of capabilities necessary to support grants management across the three agencies. The Contractor must plan, configure, test, and deploy solution components on Microsoft Dynamics 365 Power Platform to fulfill these requirements. The contractor must also satisfy the cross-cutting requirements outlined in Appendix H – Non-Functional Requirements to ensure the implementation of these functional requirements meet the security, integrity, performance, and operational standards espoused by the three agencies and the Government of Canada as a whole.

### 2.1.4.2 Solution implementation roadmap

High level plan that enables the planning, design, configuration, testing, and development of any other materials required for the implementation of the Solution. The Solution implementation roadmap will be co-developed by the agencies and the contractor and updated as the product vision is refined.

### 2.1.4.3 Deployment and operation plan

Addresses all stages in the deployment of the Solution through the stages of the development lifecycle to deployment in a production context. This includes deployment of integrated and tested incremental releases from the testing environment through staging to operational production. This plan will also include details on involvement, knowledge sharing, and knowledge transfer with Agency staff to support empowerment of the Agencies to support future granting opportunities beyond the contract engagement. This plan will also take into consideration and make accommodations for parallel operations of legacy systems and new TGMS functionality. The Deployment and operation plan will be delivered by the contractor, with input from the agencies, prior to the commencement of development activities.

### 2.1.4.4 Master test plan

Plan that outlines an automation centric approach to unit, integration, accessibility, performance, regression, and acceptance testing. This includes the creation of entrance and exit criteria for components to enter testing phase and exit as technically compliant. The Master test plan will be delivered by the contractor, with input from the agencies, prior to the commencement of development activities.

#### 2.1.4.5 Maintenance and support plan

Plan that provides an understanding of the way the Contractor will deliver the required service levels for the Solution by describing scope, initiation, delivery of support services. The Maintenance and support plan will be delivered by the contractor, with input from the agencies, prior to the promotion of configurations into the production environment. The plan must include transition out of vendor resources and stabilization of final release.

## 2.2 Solution Service Delivery Requirements

The Contractor must provide, deliver, enable, and support the Solution Services Delivery requirements as set out in this SOW.

### 2.2.1 Solution Operations and Administration Services

The Contractor must deliver the Operations and Administration Services associated with the day-to-day management of the Solution. This includes providing and supporting a stable infrastructure and performing effective and efficient operational and processing procedures to ensure Services meet Service Level Agreement (SLA) targets and requirements.

Table 2.2.1-1 identifies the Operations and Administration roles and responsibilities, which will be finalized in accordance with the Contractor SLA.

**R - Responsible** - who is responsible for carrying out the entrusted task?

**A - Accountable** (also Approver) - who is responsible for the whole task and who is responsible for what has been done?

**S - Support** - who provides support during the implementation of the activity / process / service?

**C - Consulted** - who can provide valuable advice or consultation for the task?

**I - Informed** - who should be informed about the task progress or the decisions in the task?

Operations and Administration Roles and Responsibilities	Microsoft	Contractor	Canada
1. Perform capacity management on all Solution components (e.g., storage capacity, transaction capacity, network capacity, etc.)	S	R	A
2. Perform system or component configuration changes necessary to support computing services in conformance with change management requirements	S	R	A
3. Manage cloud and solution configurations to meet or exceed the performance defined by Canada's service objectives for all Solution environments (e.g., dev, test, QA, Staging, Prod)	S	R	A
4. Provide usage statistics reports that may be used to support chargeback and other reporting requirements	S	R	A
5. Administer on-demand capacity and load balancing as required based on capacity and service level objectives	S	R	A
6. Perform Solution backups, including application, data and file backups, and provide restores per established procedures	S	R	A
7. Perform periodic testing of the integrity and usability of backups; and perform routine testing of the restore process and data	S	R	A



8. Develop a plan and process to address backup or restore failure and provide the said plan	S	S	A, R
9. Develop a plan and process to handle loss of data and provide the said plan	S	S	A, R

*Table 2.2.1-1: Operations and Administration Roles and Responsibilities*

## **2.2.2 Solution Technical Support**

The contractor must take reasonable measures to ensure that Contractor Personnel do not have standing or ongoing access rights to Canada's Data, and access is restricted to Contractor Personnel with a need-to-know, including resources that provide technical or customer support, based on approval from Canada. Technical support personnel are only permitted to have access to Customer Data when needed.

The Contractor must deliver the technical support services related to the ongoing support and maintenance of the Solution environment. Such activities include but are not limited to:

1. Providing periodic monitoring and reporting of Solution performance, utilization and efficiency as defined jointly (based on volumetrics as set out at SOW Section 5.2) between Canada and the Contractor.
2. Providing technical assistance to the Agencies Service Desk.
3. Providing technical advice and support to the Agencies staff regarding Solution opportunities and evolution potential.
4. Providing information about the functionality, architecture, data and other aspects of the Solution, as requested by the Agencies.
5. Reporting Technical Events (i.e., technical issues that did not result in an outage, did not impact service delivery, but caused a temporary increase in service delivery vulnerability or risk).

Table 2.2.2-1 identifies the Solution technical support roles and responsibilities.

R – Responsible; A – Accountable; S – Support; C – Consult; I - Inform

<b>Solution Technical Support Roles and Responsibilities</b>	<b>Microsoft</b>	<b>Contractor</b>	<b>Canada</b>
1. Perform diagnosis of all functional and technical incidents	S	A, R	C
2. Perform Root Cause analysis for all incidents, or as requested by Canada	S	A, R	C
3. Perform incident management and escalation in accordance with the agreed incident Management process	S	A, R	C
4. Perform Corrective and Emergency Support as required	S	A, R	C
5. Document and promptly notify Canada of any emergency changes	S	A, R	C
6. Validate the installation of the Solution into the production Environment. Validation activities include executing functionality delivered within production environment and confirming results meets agreed acceptance criteria	S	S	A, R
7. Review and accept successful installation of the Solution into the production Environment	S	S	A, R
8. Follow change management process for introducing change into the production Environment	S	R	A

*Table 2.2.2-1: Solution Technical Support Roles and Responsibilities*

### **2.2.3 Solution Monitoring, Reporting and Review Services**

The Contractor must provide monitoring, reporting and review services that enable timely identification of system and behavioural issues, trends, and performance.

The Contractor must deliver the monitoring and reporting services associated with the reporting of compliance to service level objectives. Incident handling activities described within this SOW Section 2.4.3 Incident Reporting and Dispatch require the Contractor to provide technical assistance in coordination with the Tri-Agencies Service Desk.

Table 2.2.3-1 identifies the underlying roles and responsibilities associated with Monitoring, Reporting and Review activities.

R – Responsible; A – Accountable; S – Support; C – Consult; I - Inform

<b>Content and Data Store Backup, Recovery and Cloning Roles, Responsibilities, and Obligations</b>	<b>Microsoft</b>	<b>Contractor</b>	<b>Canada</b>
1. Define Content and Data Store and associated Solution documents and media in the file system backup and recovery requirements and overall strategy	S	R	A
2. Provide input and documentation regarding Content and Data Store backup, recovery, and cloning requirements, strategy, and implementation plans	S	R	A
3. Define processes and standards for the cloning Environment	S	R	A
4. Review and approve cloning Environment and processes	C	C	A, R
5. Execute cloning activities as required to support the Solution services	S	R	A
6. Provide access to all Solution logs as required	S	R	A

*Table 2.2.3-1 Solution Monitoring, Reporting and Review Roles and Responsibilities*

## 2.3 Deployment Services Requirements

In this section, the deployment of the Solution is referred to as Solution Deployment. The deployment services required will align with the release schedule as set out in this SOW Section 3: Master Project Plan, Schedule and Detailed Planning and incorporating the materials required to be developed as set out in this SOW Section 3 Target Solution Requirements.

### 2.3.1 Overall Approach

The Contractor must deliver Deployment Services as required to enable the development, testing, and user acceptance of solution changes in an environment, or environments, which are segregated from the “live” production solution and data.

Canada requires that the configuration effort be conducted in stages, structured around the configuration code, data, scripts, testing and other materials required to implement the incremental business releases.

The Contractor must deliver scope, content, and implementation requirements for each incremental release in the project Start-Up Plan.

### **2.3.2 Configuration Stage Production Deployment Services Requirements**

Deployment related services are the services associated with the deployment of new or upgraded Solution component(s) to the production environment.

The Contractor must deliver:

1. A development environment which mirrors, but remains segregated from, the production environment. This environment will be used for the development and functionality testing of new features, services, updates, and bug fixes.
2. A testing environment which mirrors, but remains segregated from, the production environment. This environment will be used for testing the deployment steps and obtaining user acceptance of proposed changes to the production environment.

### **2.3.3 Solution Environment Management Services Requirements**

The Contractor must deliver required Solution Environment Management Services including:

1. Solution Monitoring Services. These services may include:
  - a. Ongoing monitoring of system traffic and performance
  - b. Historical volumetric trend reporting
  - c. User solution interaction and behaviour reporting
2. Solution Environment Maintenance Services. These services may include:
  - a. Incident Management
  - b. End user maintenance notification services
3. Software Patches and Fixes. Including:
  - a. Change logs
  - b. Deployment documentation

## **2.4 Ongoing Services Requirements**

The Contractor must deliver Ongoing Services that include Corrective Maintenance and Adaptive Maintenance Services.

### **2.4.1 Corrective Maintenance Services Requirements**

The Contractor must deliver Corrective Maintenance services for the Solution. These services shall resolve service interruptions or identify fixes or workarounds when required to address defects identified in the Solution by Canada.

The Contractor must provide in-depth technical understanding of application code and configuration that will allow for the resolution of the incidents.

Individual incidents will be categorized according to their severity for resolution and routed to the Contractor by Canada when specialized knowledge of application configuration and integration, coding, or triage and root-cause analysis is required.

### 2.4.2 Adaptive Maintenance Requirements

The Contractor must deliver Adaptive Maintenance services for the Solution as described in this SOW includes but are not limited to the following:

1. Professional services provided by the Contractor to evolve or enhance the Solution to meet Tri-Agency's needs as they change over the term of the contract.
2. Re-baselining of the corrective maintenance services to an updated cloud platform environment (e.g., security controls, platform upgrades).
3. Knowledge transfer for Tri-Agency staff in the use and operation of the Solution as configured and deployed by the Contractor.
4. Development, testing, integration and deployment of enhancements or changes made to the Solution in whole or in part.

The Contractor must deliver Adaptive Maintenance services on an as and when requested basis in accordance with the Task Authorization (TA) process as defined in the resulting contract clauses.

These services address and accommodate new functionality or business support requests that fall outside of the initial scope of this Statement of Work.

### 2.4.3 Incident Reporting and Dispatch

Maintenance and Support Services will be coordinated by Agencies' support structure already in place for Agencies' business systems and technical infrastructure. The Agencies' service desk will be the first point of contact for reporting an incident, with the service desk staff performing initial triage and forwarding the incident to the Contractor where appropriate.

The Contractor must provide the Agencies with the means for reporting incidents to their maintenance and support services.

The Contractor must provide Level 1 support for the first **two** years of maintenance and support services. The Contractor must provide Level 2 support for the following **one** year. The Contractor must provide Level 3 maintenance and support services for any additional option years. The incident support coverage for the Solution includes application components. The support service level objectives are as set out in Table 2.4.3-1.

Incident Type	Service Level Package		
	Level 3 (Option years)	Level 2 Year 3	Level 1 (Years 1-2)
<b>Severity 1</b> Indicates total inability to use the Solution, resulting in a critical impact on user objectives	Response Time 30 minutes  Resolution Time 2 hrs	Response Time 30 minutes  Resolution Time 2 hrs	Response Time 30 minutes  Resolution Time 2 hrs
Provide updates as to status and progress.	Every 30 minutes	Every 30 minutes	Every 30 minutes
<b>Severity 2</b> Indicates ability to use the Solution but user operation is severely restricted	Response Time 2 hrs	Response Time 1 hr	Response Time 30 minutes

	Resolution Time 4 hrs	Resolution Time 3 hrs	Resolution Time 2 hrs
Provide updates as to status and progress.	Every 2 hrs	Every 1 hr	Every 30 minutes
<b>Severity 3</b> Indicates user work is hindered but can continue by using workarounds (circumventive solutions)	Response Time 4 hrs  Resolution Time 4 days	Response Time 2 hrs  Resolution Time 2 days	Response Time 1 hr  Resolution Time 8 hrs
Provide updates as to status and progress.	Every 2 days	Every 8 hrs	Every 4 hrs
<b>Severity 4</b> Indicates ability to use the Solution is not hindered and user operation is minimally impacted (e.g. minor cosmetic issues)	Response Time 8 hrs  Resolution Time 6 days	Response Time 4 hrs  Resolution Time 4 days	Response Time 2 hrs  Resolution Time 2 days
Provide updates as to status and progress.	Every 3 days	Every 2 days	Every 8 hrs
<b>On Call support</b>	The Contractor must provide 24/7 support by phone, emails, or other vendor specified channels.		
<b>Reporting to include:</b> <ul style="list-style-type: none"> <li>reporting period, volumes (total, peak, average), missed SLA, environment availability;</li> <li>system and other issues;</li> <li>incidents by severity, average time to respond, average time to resolve open incidents.</li> </ul>	Real-time (online portal)	Real-time (online portal)	Real-time (online portal)

*Table 2.4.3-1 Support Service Level Objectives*

## 2.5 Ongoing Technical and Operational Support Services Resource Requirements

Throughout the duration of the contract period, the Contractor must provide ongoing support for agency staff including:

1. Technical escalation support
2. Configuration and feature support
3. Feature request management
4. Product management
5. Vendor/Client relationship management

The Contractor must provide professional services resources on an as-and-when requested basis to enable and support the operationalization effort and to provide resources to perform ongoing technical and operational support of the Solution including:

1. Services that complement but do not duplicate the services required to implement the Solution and all related materials as set out in this SOW Section 4: Solution Requirements;
2. Services that complement but do not duplicate the services required to implement the Solution for the purposes of accommodating changes to the business solutions (e.g. as required to perform minor enhancements or coding changes to address policy changes and business rule changes as implemented in the application code);

3. Services that complement but do not duplicate the Corrective Maintenance services as set out in this SOW Section 4.9: Ongoing Services Requirements (e.g. to support maintenance upgrades required to maintain compliance with security controls implemented to maintain Protected B compliance or evolving security requirements). It is anticipated that the services required will be for Adaptive Maintenance of the Solution;
4. Services as may be required to design, develop, test, deploy and sustain major enhancements to the Solution (e.g. to address business requirements for new TGMS functionality in response to policy demands); and
5. Services required to develop net new documentation as may be required to enable support of the Solution by Canada.

### 3 Target Solution Requirements

#### 3.1 TGMS business capabilities

The agencies aspire to select a system integrator that will configure the grant management solution to achieve the high-level vision included in Figure 3.1-1 below.

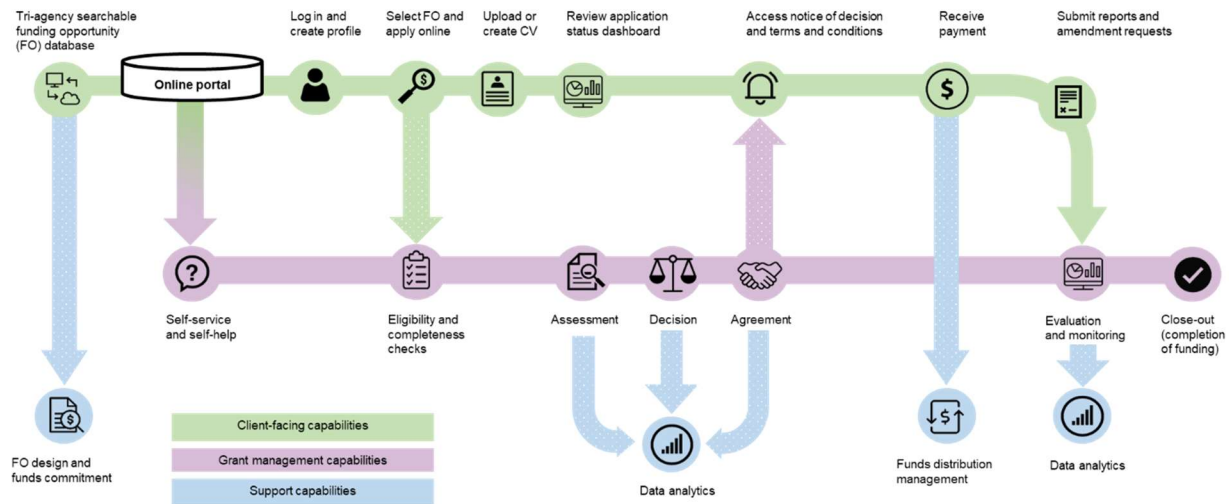


Figure 3.1-1 High-level TGMS Business Vision

This vision has been broken down and grouped into the level 1 and 2 business capabilities found below and are further elaborated and defined in Appendix C – Functional Requirements.



Figure 3.1-2 High Level Business Capabilities Model



Business Capability	Definition	Level 2
1.0 Bio-Profile	Access TGMS, complete a Bio-Profile containing personal information (e.g., name, date of birth, etc.) and professional information (e.g., field of study, affiliated institutions, etc.) and update this information as required.	1.1 Bio-Profile Management 1.2 Bio-Profile Examination
2.0 Arrange and Acquit	Design, implement, manage and close funding structure nodes	2.1 Funding Structure (FS) Management 2.2 Funding Opportunity (FO) Management 2.3 Program Literature Management 2.4 Committee Management 2.5 Committee Meeting Management 2.6 Funding Cycle (FC) Management 2.7 Key Performance Indicator (KPI) Management 2.8 Funding Partner Management 2.9 Node Closing (Acquit)
3.0 Apply	Manage and submit one or multiple applications for various purposes (e.g., funding submission, appeals submission, continuing institutional eligibility submission, amendment of an award, etc.)	3.1 Application Completion 3.2 Application Contribution 3.3 Application Management 3.4 Application Administration
4.0 Assess	Assess an application, including administrative assessments (eligibility and compliance), relevance and merit reviews, appeals, etc.	4.1 Application Completeness Validation 4.2 Application Eligibility Validation 4.3 Reviewer Management 4.4 Application Merit Assessment 4.5 Application Results Preparation
5.0 Award	Examine the results of the assessment process and create funding recommendations and the associated agreements, and create awards for the successful applications	5.1 Recommendation Management 5.2 Award Management 5.3 Notice of Decision Management
6.0 Administration	Monitor awards and administering organizations, process amendments, process allegations, and manage the funds to recipients	6.1 Payment Management 6.2 Award Amendment Management 6.3 Award Monitoring 6.4 Administering Organization Monitoring 6.5 Allegation Management
7.0 Audit & Evaluation	Perform and publish audits and evaluations of management practices and activities, perform corporate reporting, and provide proactive disclosure.	7.1 Reporting Requirements Management 7.2 Funding Structure Node Monitoring 7.3 Report Generation 7.4 External Reporting
8.0 Analytics	Supports the creation and usage of advanced data queries to facilitate the advanced analysis of TGMS data.	8.1 Advanced Data Querying 8.2 Advanced Analysis 8.3 Data Visualization 8.4 Results Sharing 8.5 Report Correction

Business Capability	Definition	Level 2
9.0 Stakeholder Management	Encompasses Agency Administrators, Agency Analysts, Reviewers, Applicants interactions and self-service that support sharing and recording of information within and outside of the agencies.	9.1 Communications Management 9.2 Client Interaction Management 9.3 Self-Service Management 9.4 Group Management 9.5 Subscription Management 9.6 Help Management
10.0 Continuous Learning	Creation, consumption and monitoring of learning materials for stakeholders based on their role(s). Stakeholders include staff as well as applicants, reviewers, advisory committee members and others.	10.1 Learning Management 10.2 Learning Completion 10.3 Learning Monitoring
11.0 Program Budget Management	Manage and allocate budgets across the Agencies' funding structures.	11.1 Budget Management 11.2 Budget Consumption
12.0 Common Services	Supporting capabilities that contribute to all other capabilities.	12.1 Consent Management 12.2 Approval Management 12.3 Access Management 12.4 Data Management 12.5 Identity Management

*Table 3.1-1 High Level Business Capabilities Descriptions*

## 3.2 Conceptual Application Architecture

The TGMS conceptual application architecture is outlined in Appendix J – TGMS Conceptual Application Architecture

## 3.3 TGMS Personas

TGMS must support all the personas as set out in this SOW Appendix G – Personas and are listed below:

**Agency Personas (Administrators and Analysts):** Employees from the three agencies consulted to create the two agency personas include primary users of tri-agency systems working in front-line support, competition delivery/support, analytics/corporate reporting, finance, and system analytics. The agency administrator persona represents tasks pertaining to the direct development and delivery of funding opportunities. The agency analyst persona represents tasks pertaining to analysis to support the delivery of competitions, including financial administration.

**Applicants:** The applicant personas represent early, mid-career or senior researchers who apply to one or more of the agencies' funding opportunities. There are two applicant personas, one of which represents the needs of applicants who are working on complex projects that require a lot of administrative support, and the second applicant persona represents the needs of applicants who are working on less complex projects that do not need as much administrative support.

**Reviewer:** The reviewer persona represents members of the research community who volunteer their time to participate in the agencies review processes. Reviewers are assigned to applications in their area of expertise and experience, whereby they conduct an assessment and provide a recommendation for funding. The reviewer persona represents the needs of a variety of reviewer types at the agencies, including peer reviewers, external reviewers, readers, etc.

**Research administrator:** The research administrator persona represents the needs of institution officials who provide administrative services to researchers, from offices such as the research grants office, research accounting office or scholarships liaison office, etc. Research administrators assist researchers with completing applications to submit to funding opportunities, keep those researchers updated on funding opportunity information, help them interpret requirements and policies and ensure compliance with these, and oversee the administration of research grant funds.

### 3.4 User Design Principles

The TGMS project is committed to delivering an improved user experience within the new solution, which will be achieved by adopting a user-centric approach. Through the documentation of journey maps, the wants and needs for all six personas representing the Agencies' internal and external primary user groups have been identified which are summarized in the following user design principles for TGMS:

1. **Accessibility** - Ensuring the design of a new solution is inclusive to the diverse needs of users.
2. **Adaptability** - Ensuring the solution is compatible with multiple operating systems (iOS and Windows), multiple browsers and mobile devices.
3. **Automation** – Introducing features such as auto-save, real-time spellcheck, automatic notifications and reminders to reduce the user's interventions.
4. **Clarity** - Ensuring harmonized business processes, instructions, policies, and other information are clear and easily accessible across the three Agencies. Ensuring default-setting management according to best practices.
5. **Collaboration** – Allowing users to delegate access and tasks to other users to promote collaboration.
6. **Ease of use** - Providing one single portal for all three Agencies, with one username and one password for each user (one unique identifier). Intuitive system navigation facilitated by self-help and easy to use guides.
7. **Re-usability** - Ensuring the ability to reuse and pre-populate data from previous CV and applications information.
8. **Self-service** – Allowing users to upload and download data in usable formats.
9. **Simplicity** - Ensuring the collection of essential information is performed efficiently and that information provided is easily consumed.
10. **Visibility** - Allowing users to view the status of work to be done through integrated templates, workflows and dashboards in turn promoting collaboration and transparency.

### 3.5 Journey Maps

Through interviews, workshops, and validation sessions with both internal and external users, the agencies have documented the users' current experiences and their wants and needs for a future grants management solution. The journey map report may be found at Appendix K – Journey Maps.

### 3.6 Project Outcomes

The TGMS project has identified key project outcomes, which tie directly to the TGMS business capabilities. These outcomes help define the future state vision. Further details on the project outcomes can be found in Appendix E – Outcome Management.

### 3.7 Services Architecture

The Tri-agency grant management Solution (TGMS) Service Architecture provides a vision of the services required to deliver the TGMS business capabilities and can be found at Appendix I – Services Architecture.

The TGMS service architecture focuses on detailing the end-to-end inventory of business services required to support the target business solution, which will deliver the TGMS business capabilities.

Note: The services architecture is not limited to only those services that will be enabled directly by the procured solution. Rather, it reflects the totality of required core business services.

### 3.8 TGMS Conceptual Solution Roadmap

The TGMS Conceptual Solution Roadmap is an overview of the transition of services from legacy methods and systems to services within the TGMS. It aims to provide a non-prescriptive view of the Solution delivery vision and will continue through evolution and refinement as the Solution delivery evolves.

The TGMS Product Roadmap currently highlights the areas defined in Table 3.8-1 TGMS Conceptual Solution Roadmap components.

Title	Description
Checkpoint	Checkpoints are achievement points at which system solutions or process solutions are completed and can either be leveraged in production or leveraged by future products.
Products	Major solution components released live to all intended end users, or major components launched to limited pilot groups to confirm functionality.
Service Suites	Business Services Suites that are developed or enhanced (See <i>Appendix I – Services Architecture</i> ).
Outcomes	The Outcomes to be supported by the developed services and enhancements (See <i>Appendix E – Outcome Management</i> ).

*Table 3.8-1 TGMS Conceptual Product Roadmap Components*

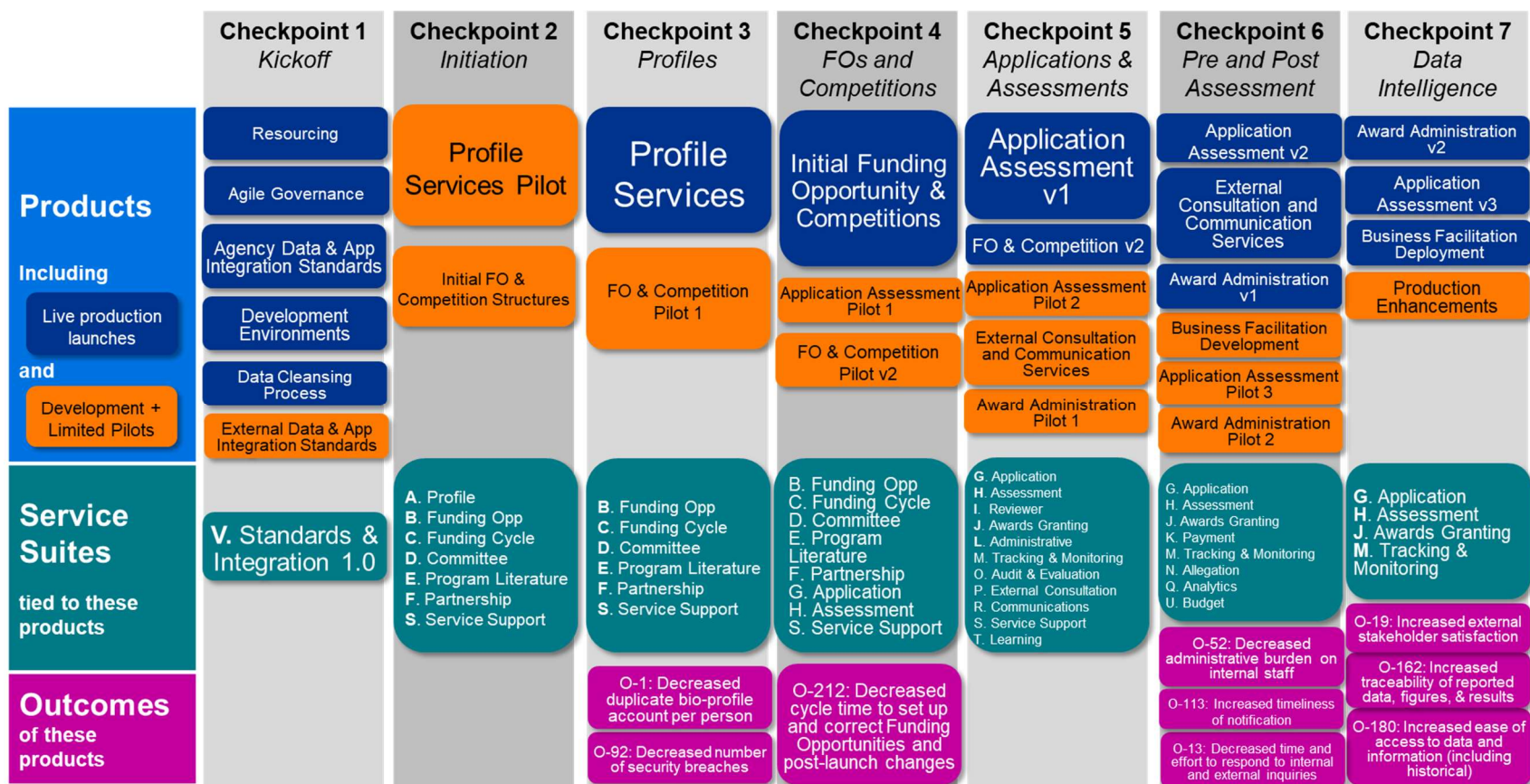


Figure 3.8-1 TGMS Conceptual Product Roadmap

### 3.9 Non-functional Requirements

In addition to the functional requirements for TGMS, as described by Appendix C – Functional Requirements, there are additional requirements that underpin how a solution is intended to operate.

These non-functional requirements can be broken-down into the categories below, and detailed in Appendix H – Non-Functional Requirements:

1. Security/Privacy: Including identity management, data privacy, solution safeguards, and data residency requirements.
2. Audit and Control: Including details around how data is captured, stored, accessed and reported upon within the solution, as well as how the solution handles information lifecycle management (i.e. document retention and archiving).
3. Capacity: Including the capacity to handle user volumes (and concurrent usage peaks), data storage, and the ability to scale with usage (without adversely affecting system performance).
4. Performance: Including application and Application Programming Interface (API) response time.
5. Availability: Including requirements related to when the system needs to be available to clients, how maintenance periods are accommodated, and the baseline expectations from which service-level performance agreements can later be derived.
6. Recoverability: Including the approaches to maintaining and recovering function/data relating to disaster situations whether natural or manmade (such as natural disasters or cyber-attacks).
7. Robustness: Including the solution's ability to react to change.
8. Integrity: Including requirements related to the consistency and reliability of data.
9. Operational: Including the ease of configuration to accommodate the varied information agencies' need to collect and manage to meet their mandates and the vendor's approach to training for client users. In addition, the ability to interoperate with other applications, through APIs, for the provision of agency services.
10. Interface/Accessibility: Including how the solution is designed to ensure that all products, services, and environments can meet government of Canada standards for accessibility by all users (including persons with disabilities), multi-device/browser compatibility, bilingualism and can handle advanced character sets that some of the applications require.

### 3.10 Data Requirements

#### 3.10.1 Conceptual Data Model

The Agencies have developed a harmonized conceptual data model which encompasses the three Agencies' current state business data needs. The TGMS Conceptual Data Model is accessible by means of instructions included in Appendix F – Conceptual Data Model and demonstrates the scope of data requirements anticipated for the TGMS.

### 3.10.2 Information Sharing and Privacy Restrictions

The three granting agencies currently leverage information sharing amongst themselves and outside entities to support their mandates. The consolidation of their grants management under a single solution is expected to enable greater opportunity to share holistic data and information views across the three agencies. In accordance with the Canadian Privacy Act (R.S.C., 1985, c. P-21), however, it is required that some information be constrained to the agency and/or explicit purposes for which it was gathered. It is therefore necessary that the TGMS allows for reliable metadata tagging of data provenance and access restrictions.

### 3.11 Business Cycles

While not all Funding Opportunities follow an annual award cycle (i.e., some involve continuous application intake throughout the year), the three granting agencies typically stagger grant and award funding opportunity cycles throughout the year to alleviate resource strain on both the applicants and the agencies. Beyond funding cycles, the agencies also align resources to several events that run on an annual cadence including fiscal year end and federal budget announcements. Dynamic adjustments to resources, however, are frequently necessary to leverage externally driven opportunities and requirements.

### 3.12 Environment Volumetrics

The following table lists some of the estimated volumetric for the TGMS based upon reporting by the three Agencies.

Metric	2020-21 Estimated Volume	Expected Growth per annum
Submitted/received funding applications	50,000	+10%
Merit reviewer application assessments	35,000	+10%
Awarded applications	12,000	+10%
Total active awards (newly awarded + previous multi-year awards)	37,000	+10%
Internal staff (tri-agency combined)	1,200	+4%

*Table 3.12-1: Volumetric estimates for the Solution*

The volumetric data provided to Respondents contains current and historical data. The inclusion of this data does not represent a commitment by Canada that any future usage of the new TGMS or any optional services will be consistent with this data. It is expected that the transition will be conducted in a phased approach, and as a result, capacity required by the TGMS will grow in phases throughout implementation. Respondents may decide in their sole discretion whether to take this information into consideration in preparation for their responses. Respondents may also decide in their sole discretion how to interpret and use this information during their response preparation. Canada will not consider changes to a resulting service order (SO) if the actual volumetric data deviates from the one provided.



## **4 Project Approach and Governance**

### **4.1 Overall Approach**

The Solution will be delivered through co-design and configuration by the TGMS and Contractor product teams following an Agile methodology. The Solution must be implemented and delivered through minimum viable requirements (MVR) functionality as initially described in this SOW. To deliver the Solution, it will further be refined, through the Agile process, to the designated cloud environment using, as required, people, processes as well as platform and accelerator based enabling technologies as required to deliver the Solution.

The Contractor, in collaboration with Canada, will deliver functional working components on a regular basis through employing a user-centric, agile process that includes a prioritized backlog and sprints. The Contractor will deliver functional working components in a designated cloud testing environment(s) to facilitate the review, refinement, and acceptance of these components by Canada.

The draft functional requirements in Appendix C – Functional Requirements of this SOW, will be progressively and iteratively translated into product backlog items in collaboration with Canada.

### **4.2 Release Management Strategy**

The Contractor must provide, deliver, and support the Solution in all the required development and staging environments. The user team will validate the understanding of the requirements by the contractor, test the functionality developed, validate with users, and accept the Solution without interfering with the designated production environments.

In collaboration with Canada, the Contractor will deploy functional working components from the designated user acceptance testing (UAT) environment to the designated production environment. During the deployment process, the Contractor must provide such services as required to test, operate, maintain, and support the Solution.

### **4.3 External Change Agents**

In collaboration with Canada, the Contractor must anticipate the need to accommodate changes and updates to the SaaS environment components, to Government of Canada policy, and to Government priorities. The accommodation of these needs will require dynamic adjustment of delivery cycles by the Contractor and Canada.



#### 4.4 Solution Work Initiation and Task Authorization

Canada recognizes that the Solution is made up of an evolving set of business needs. As such, the Solution will be delivered in a disciplined Agile process model and methodology without compromising the delivery as set out in Section 3.8 TGMS Conceptual Solution Roadmap.

To manage the complexity and risks associated with the deployment of the Solution, Canada is taking an incremental and managed configuration approach. This incremental and managed approach focuses on the Incremental Release model as set out in this 3.8 TGMS Conceptual Solution Roadmap. Through this model, the minimum viable requirements needed to be developed will be split up into work packages.

These work packages will be issued to the Contractor through a TA and consist of a planning, configuration, testing, deployment, support, cut-over or other specified requirements.

#### 4.5 Project Governance Model

The Project governance model is designed to address the complex business, technical, administrative, logistical, and operational challenges posed by the implementation of the Solution.

The Project governance structure (see Table 4.5-1), is intended to provide a core framework for collaborative delivery between Canada and the Contractor of the value demanded of the Solution. This structure represents only core roles and will be augmented by Canada during the implementation.

Project Role	Responsibilities
TGMS Governance Board	A Vice-President (VP) level committee ultimately accountable for the delivery of the end-to-end solution.
TGMS Director General	Responsible as primary executive accountable for budget, risk, and direction of the TGMS project.
TGMS Vendor Manager	Responsible as primary liaison between Contractor and Canada.
TGMS Product Manager	Responsible for overall product vision and roadmap.
TGMS Project Manager	Responsible for project resource scheduling, budget, artifact management, risk, and performance reporting.

*Table 4.5-1 Project Governance Structure*

#### 4.6 Issue Management and Escalation

The TGMS Project Manager will address issues raised by the TGMS Project Teams, whether the issue originated from the Agencies Teams, or from the Contractor Team, or from others.

If the TGMS Project Manager cannot resolve the issue within the defined services level agreement period, or if the TGMS Project Manager requires direction, the issue will be escalated up one level.

Issues requiring Agencies direction will be escalated to the TGMS Director General. Issues requiring Contractor direction, will be escalated to the Contractor Account Executive by the TGMS Vendor Manager. The TGMS Vendor Manager and the Contractor Account Executive will bring together the

resources required to resolve the issue and will provide direction to the TGMS Director General and TGMS Project Manager.

Should the issue not be resolvable by the TGMS Director General and the Contractor Account Executive, the issue will be escalated to the TGMS Governance Board for resolution.

Timeframes for resolution of issues will be determined by the Agencies when the final TGMS Project governance framework is completed.

#### **4.7 Location of work**

It is anticipated that most of the work will be performed remotely, however consultants may be required to report in-person in the future to 125 Zaida, Ottawa, Ontario.

## Appendix A – Glossary of Terms

Term	Definition
Acceptance Test(ing)	<b>"Acceptance Test"</b> means any and all tests of all or any part of the deliverables to be carried out by Canada or its representatives to determine if such deliverables conform to the requirements, Specifications, warranties and standards set out in or incorporated into the Statement of Work.
Adaptive Maintenance	<b>"Adaptive Maintenance "</b> in the work required to evolve or enhance the Solution to meet Tri-Agency's needs as they change over the term of the contract. These changes include changes in business functions (e.g. to comply with changes in Tri-Agency program policy or security policy) and upgrades to accommodate updates to underlying licensed software products.
Application Programming Interface (API)	A set of routines, protocols, and tools for building software applications. The API specifies how software components should interact and APIs are used when programming graphical user interface (GUI) components.
Business Cycle	<b>"Business Cycle"</b> means the full period between regular, scheduled events in the operation of the business. Business cycles may be daily, weekly, monthly, annually, or established on some other defined, repeated schedule.
Business Day	<b>"Business Day"</b> means any working day, Monday to Friday inclusive, excluding statutory and other federal government holidays, namely: New Year's Day; Good Friday; Easter Monday; Victoria Day; Canada Day; Civic Holiday; Labour Day; National Day for Truth and Reconciliation, Thanksgiving Day; Remembrance Day; Christmas Day; Boxing Day and any day which the government of Canada has elected to be closed for business.
Business Hours	<b>"Business Hours"</b> means the hours of 6:00 AM through 8:00 PM EST
Cloud Computing	Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. Definition taken from the Institute of Standards and Technology (NIST) definition of Cloud Computing, located in SP 800-145 at the following link: <a href="http://csrc.nist.gov/publications/PubsSPs.html#800-145">http://csrc.nist.gov/publications/PubsSPs.html#800-145</a>
Cloud Service Provider (CSP)	A Cloud Service Provider is the originator of the Cloud Services described in the Cloud Computing definition using different service models and deployments models.
Cloud Services	Cloud Services refers to a shared pool of configurable <i>Cloud Computing</i> service models made available to users as a rapid, on demand, elastic self service via the Internet from a Cloud Service Provider's servers as opposed to being provided from a company's own on-premises servers.
Confidentiality	A compromise of the confidentiality of PROTECTED B information is reasonably expected to cause a medium level of injury to non-national

Term	Definition
	interests. Confidentiality is further defined in the <a href="#">Government of Canada Security Control Profile for Cloud-based GC IT Services</a>
Funding Opportunity (FO)	A means for supporting research and research training. The Agency is able to specify the details of a funding opportunity (e.g., Name, Objective, State Date, End Date, etc.), Status (e.g., Draft, Active, Closed, etc.), Program Literature and more. Each funding opportunity has specific eligibility criteria that must be fulfilled by each named person on an application, their organization, as well as the program being applied to.
Integrity	A compromise of the integrity of supporting IT assets is reasonably expected to cause a medium level of injury to non-national interest. Integrity is further defined in the <a href="#">Government of Canada Security Control Profile for Cloud-based GC IT Services</a>
Statement of Work (SOW)	Means this SOW and all of its Appendices
Software as a Service (SaaS)	<b>“Software as a Service (SaaS)”</b> : means the capability provided to the consumer is to use the provider’s applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings
Platform as a Service (PaaS)	<b>“Platform as a Service (PaaS)”</b> : means the capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.
Infrastructure as a Service (IaaS)	<b>“Infrastructure as a Service (IaaS)”</b> : means the capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).
GC Digital Standards	The <b>“Government of Canada Digital Standards”</b> are defined at the following link: <a href="https://www.canada.ca/en/government/system/digital-government/government-canada-digital-standards.html">https://www.canada.ca/en/government/system/digital-government/government-canada-digital-standards.html</a>
Mandatory Procedures for Enterprise Architecture and for Application Programming Interfaces	The <b>“Mandatory Procedures for Enterprise Architecture and for Application Programming Interfaces”</b> are defined in the Directive on Service and Digital Appendix C : <a href="https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32601">https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32601</a>

Term	Definition
Including	In this SOW, <b>including</b> means 'must contain, but not limited to.'

## Appendix B – Acronyms

Acronym	Definition
API	Application Programming Interface
CCCS	Canadian Center for Cyber Security
CISD	Canadian Industrial Security Directorate
CSEC	Communications Security Establishment Canada
CSP	Cloud Service Provider
DSO	Departmental Security Officer
GC	Government of Canada
IM	Information Management
IM/IT	Information Management and Information Technology
MVR	Minimum Viable Requirements
PBMM	<a href="#">Protected B, Medium Integrity, Medium Availability as defined in the Government of Canada Security Control Profile for Cloud-based GC IT Services</a>
PSPC	Public Services and Procurement Canada
RFP	Request for Proposal
SaaS	Software as a Service
SC	Steering Committee
SDLC	System Development Lifecycle
SLA	Service Level Agreement
SOW	Statement of Work
SSC	Shared Services Canada
TA	Task Authorization
TB	Treasury Board
TBS	Treasury Board Secretariat

## Appendix C: TGMS Business Capabilities

### Introduction

Business capabilities modeling is a structured way of expressing the activities the organization performs to achieve its desired business outcomes. Business capabilities provide a framework for execution-focused business processes. A business capability identifies the resources that need to be combined in order to deliver client-perceived value.

“Business capabilities describe our ability to reliably and consistently deliver a specific business outcome.”

Because traditional models of processes, information and systems transition too quickly into details that have a short-term tactical focus, they are not always effective when addressing what the business does today and what it needs to do in the future. In contrast, business capability models provide a way of discussing what the business does, while keeping the focus on a more stable, long-term view of the enterprise.

The development of the business capability model is an iterative process that is informed by business outcomes, client journeys and business scenarios, as shown in the figure below.

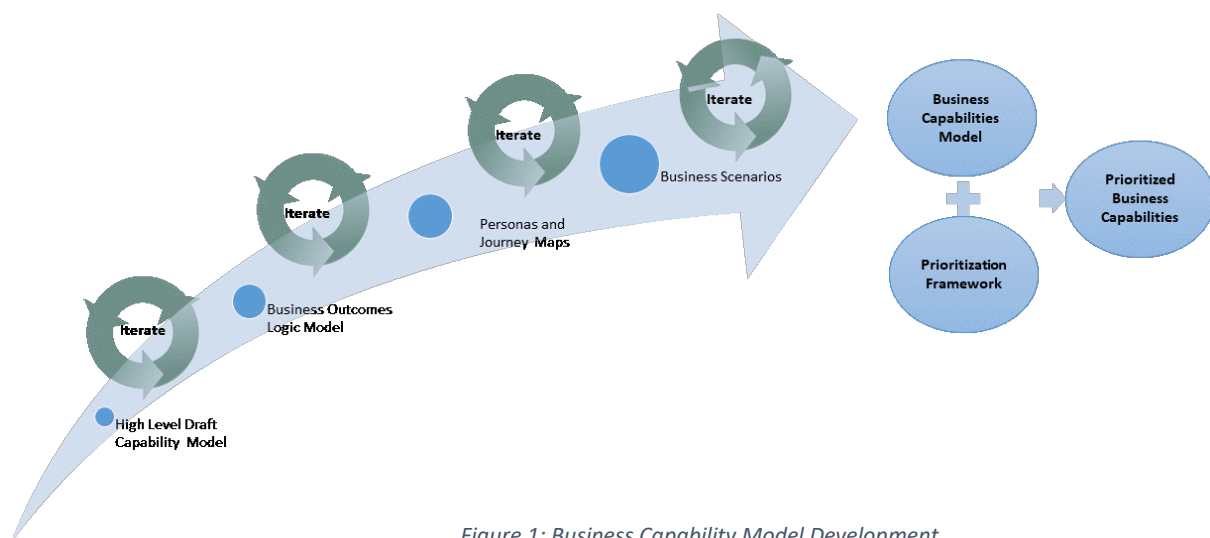


Figure 1: Business Capability Model Development

### Purpose

The purpose of this document is to describe the Business Capability Model (BCM) for the Tri-Agency Grants Management Solution (TGMS). The TGMS BCM defines the set of capabilities that the Tri-agencies require to deliver the business of funding research. The TGMS BCM will be used to build a consensus within the agencies around what is expected in a solution and subsequently, to inform the selection of the new solution.

## Approach

The following approach was taken to develop the TGMS Business Capability Model:

The first version of the TGMS Business Capability Model was created based on the harmonized Tri-Agency business process models. The foundation for that work was the RP 2.0 business process models and the EnABLEs business process models. This first version of the model defined the first 2 levels of the business capabilities. Significant socialization of the first version of the TGMS Business Capability Model across the Tri-Agencies was completed which resulted in further refinements of the Business Capability Model. Approval of the first version of the TGMS BCM by the TGMS Executive board was received in the Spring 2019. The first version of the Business Capability Model was provided to vendors at Industry Day in August 2019.

Following Industry Day, the need to develop the level 3 business capabilities was identified. The second version of the TGMS BCM was created based on the harmonized Tri-Agency business process models. Following socialization and approval of the second version of the Business Capability Model, this model will be used to inform the selection of the new solution.



## High Level Business Capabilities Model

At its highest level, the TGMS BCM is composed of twelve level 1 business capabilities, which are in turn further defined in terms of level 2 capabilities. This decomposition is shown in the figure below and documented in Table 1.



Figure 2: High Level Business Capabilities Model

Table 1: High Level Business Capability Descriptions

Business Capability	Definition	Level 2	Final Outcomes
1.0 Bio-Profile	Access TGMS, complete a Bio-Profile containing personal information (e.g., name, date of birth, etc.) and professional information (e.g., field of study, affiliated institutions, etc.) and	1.1 Bio-Profile Management 1.2 Bio-Profile Examination	O-9 Increased internal and external stakeholder satisfaction O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies

Business Capability	Definition	Level 2	Final Outcomes
	update this information as required.		
2.0 Arrange and Acquit	Design, implement, manage and close funding structure nodes	2.1 Funding Structure (FS) Management 2.2 Funding Opportunity (FO) Management 2.3 Program Literature Management 2.4 Committee Management 2.5 Committee Meeting Management 2.6 Funding Cycle (FC) Management 2.7 Key Performance Indicator (KPI) Management 2.8 Funding Partner Management 2.9 Node Closing (Acquit)	O-9 Increased internal and external stakeholder satisfaction O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies O-173 Increased strength of reputation of Canada as a leader in research
3.0 Apply	Manage and submit one or multiple applications for various purposes (e.g., funding submission, appeals submission, continuing institutional eligibility submission, amendment of an award, etc.)	3.1 Application Completion 3.2 Application Contribution 3.3 Application Management 3.4 Application Administration	O-19 Increased external stakeholder satisfaction O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within Agencies

Business Capability	Definition	Level 2	Final Outcomes
4.0 Assess	Assess an application, including administrative assessments (eligibility and compliance), relevance and merit reviews, appeals, etc.	4.1 Application Completeness Validation 4.2 Application Eligibility Validation 4.3 Reviewer Management 4.4 Application Merit Assessment 4.5 Application Results Preparation	O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies
5.0 Award	Examine the results of the assessment process and create funding recommendations and the associated agreements, and create awards for the successful applications	5.1 Recommendation Management 5.2 Award Management 5.3 Notice of Decision Management	O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies
6.0 Administration	Monitor awards and administering organizations, process amendments, process allegations, and manage the funds to recipients	6.1 Payment Management 6.2 Award Amendment Management 6.3 Award Monitoring 6.4 Administering Organization Monitoring 6.5 Allegation Management	O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies

Business Capability	Definition	Level 2	Final Outcomes
7.0 Audit & Evaluation	Perform and publish audits and evaluations of management practices and activities, perform corporate reporting, and provide proactive disclosure.	7.1 Reporting Requirements Management 7.2 Funding Structure Node Monitoring 7.3 Report Generation 7.4 External Reporting	O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies O-173 Increased strength of reputation of Canada as a leader in research
8.0 Analytics	Supports the creation and usage of advanced data queries to facilitate the advanced analysis of TGMS data.	8.1 Advanced Data Querying 8.2 Advanced Analysis 8.3 Data Visualization 8.4 Results Sharing 8.5 Report Correction	O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies
9.0 Stakeholder Management	Encompasses Agency Administrators, Agency Analysts, Reviewers, Applicants interactions and self-service that support sharing and recording of information within and outside of the agencies.	9.1 Communications Management 9.2 Client Interaction Management 9.3 Self-Service Management 9.4 Group Management 9.5 Subscription Management 9.6 Help Management	O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies

Business Capability	Definition	Level 2	Final Outcomes
10.0 Continuous Learning	Creation, consumption and monitoring of learning materials for stakeholders based on their role(s). Stakeholders include staff as well as applicants, reviewers, advisory committee members and others.	10.1 Learning Management 10.2 Learning Completion 10.3 Learning Monitoring	O-9 Increased internal and external stakeholder satisfaction O-19 Increased external stakeholder satisfaction O-24 Increased agency credibility O-37 Increased employee satisfaction O-45 Increased organizational effectiveness across and within agencies
11.0 Program Budget Management	Manage and allocate budgets across the Agencies' funding structures.	11.1 Budget Management 11.2 Budget Consumption	O-24 Increased agency credibility O-30 Increased transparency and stewardship of public funds O-37 Increased employee satisfaction O-202 Increased flexibility and responsiveness to meet new or changing GoC and agency priorities
12.0 Common Services	Supporting capabilities that contribute to all other capabilities.	12.1 Consent Management 12.2 Approval Management 12.3 Access Management 12.4 Data Management 12.5 Identity Management	

## Level 2 and Level 3 Business Capabilities

### “Bio-Profile” Business Capability

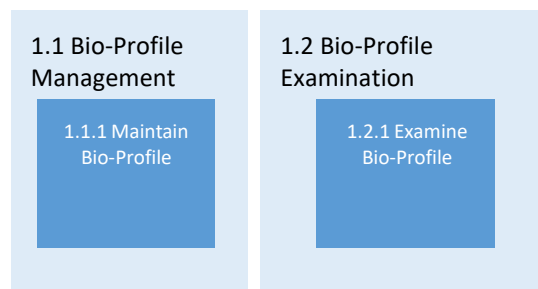


Figure 3: “Bio-Profile” Business Capabilities

Table 2: “Bio-Profile” Business Capability Descriptions

1.0 Bio-Profile – This series of capabilities supports bio-profile management and examination.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>1.1 Bio-Profile Management</b>	Based on their role, all users (Agency Administrators, Agency Analysts, Reviewers, Research Administrators, and Applicants) can create one profile, and update it while logged into the solution under one access. This profile will contain tombstone data which is standard across all roles such as client name and contact information; however, other data, such as applicant and reviewer CV data, will only be available for these specific roles.	1.1.1 Maintain Bio-Profile	<ul style="list-style-type: none"> <li>TGMS users are able to maintain (create, update) a bio-profile containing tombstone and role specific information.</li> <li>Applicants and Reviewers are able to select data from their profiles or upload data from an external source to create an application CV.</li> <li>Agency Administrators and Agency Analysts are able to create their own bio profile assigned with their role.</li> </ul>
<b>1.2 Bio-Profile Examination</b>	Agency Administrators and Agency Analysts are able to examine external users’ profiles	1.2.1 Examine Bio-Profile	<ul style="list-style-type: none"> <li>Agency Administrators and Agency Analysts are able to access and examine</li> </ul>

**1.0 Bio-Profile – This series of capabilities supports bio-profile management and examination.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	for various reasons (to support reviewer recruitment, eligibility validation, etc.).		user profiles for various reasons such as, but not limited to: <ul style="list-style-type: none"><li>○ Support reviewer recruitment</li><li>○ Eligibility validation</li></ul>

## “Arrange and Acquit” Business Capability



Figure 4: “Arrange and Acquit” Business Capabilities



Table 3: “Arrange and Acquit” Business Capability Descriptions

2.0 Arrange – This series of capabilities supports overall program design and implementation.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>2.1 Funding Structure (FS) Management</b>	Agency Administrators configure the Funding Structure (FS) for a program so that it reflects the agencies' Departmental Results Framework (DRF) and the components necessary to deliver the expected results (e.g., initiatives, funding opportunities, funding cycles, committees, etc.). Agency Administrators can add nodes, create parent/child relationships between nodes, and have the flexibility to implement the appropriate type of node association (e.g., one-to-one, one-to-many, or many-to-many).	2.1.1 Manage FS Node	<ul style="list-style-type: none"> <li>Agency Administrators are able to create a structure of FS Nodes so that it reflects the agency's DRF for each fiscal year.</li> <li>Agency Administrators are able to modify an existing funding structure in response to a business need such as changes to an agency's DRF.</li> <li>Agency Administrators are able to add nodes to a funding structure in response to a business need.</li> <li>Agency Administrators are able to remove nodes from a funding structure in response to a business need.</li> <li>Agency Administrators are able to establish relationships between FS Nodes in addition to the typical parent-child relationship. It may be necessary to create a many-to-many relationship between nodes to satisfy a business need.</li> </ul>
		2.1.2 Group FS Nodes	<ul style="list-style-type: none"> <li>Agency Administrators are able to group FS Nodes together to support a business need. The FS Nodes in a group do not need to be at the same level in the funding structure.</li> </ul>
<b>2.2 Funding Opportunity (FO) Management</b>	Agency Administrators add or modify funding opportunity attributes such as eligibility requirements, assessment requirements (e.g.,	2.2.1 Manage FO Approval Authority	<ul style="list-style-type: none"> <li>Agency Administrators are able to manage the approval authority for a funding opportunity:</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	scoring model, terms & conditions, etc.) and award related requirements such as financial rules, amendment rules, appeal rules, etc.		<ul style="list-style-type: none"> <li>○ Agency Administrators are able to associate someone to a funding opportunity as an approval authority.</li> <li>○ Agency Administrators are able to disassociate someone from a funding opportunity.</li> </ul>
		2.2.2 Define Application Related Requirements	<ul style="list-style-type: none"> <li>● Agency Administrators are able to define application stages for funding opportunities with multi-stage submission requirements such as registrations, Notice of Intent, Letter of Intent etc.</li> <li>● Agency Administrators are able to define application related requirements for each stage of the application process. Application related requirements include, but are not limited to: <ul style="list-style-type: none"> <li>○ Terms and conditions of applying for all application participants</li> <li>○ Contributing budget requirements</li> <li>○ Institutional quota rules</li> <li>○ Institution eligibility requirements</li> <li>○ FO specific eligibility requirements</li> <li>○ Regulatory eligibility requirements</li> <li>○ Subject matter eligibility requirements; and</li> <li>○ Participant, such as application partner organization, co-applicant and collaborator, eligibility requirements</li> </ul> </li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		2.2.3 Define Assessment Related Requirements	<ul style="list-style-type: none"> <li>• Agency Administrators are able to define assessment related requirements for each stage of the application process. Assessment related requirements include, but are not limited to: <ul style="list-style-type: none"> <li>○ Scoring matrix requirements</li> <li>○ Committee review requirements</li> <li>○ External review requirements; and</li> <li>○ Staff review requirements.</li> </ul> </li> <li>• Agency Administrators are able to specify mechanisms (i.e. flags) for identifying, tracking and resolving application issues discovered during the assessment of an application.</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		2.2.4 Define Award Related Requirements	<ul style="list-style-type: none"> <li>• Agency Administrators are able to define award related requirements including, but not limited to: <ul style="list-style-type: none"> <li>○ Terms and conditions of accepting an award such as eligible expenses, sharing of results etc.</li> <li>○ Maximum allowable award amount</li> <li>○ Institutional award rules</li> <li>○ Institutional allocation rules</li> <li>○ Funding schedules</li> <li>○ Payment schedules</li> <li>○ Award start and end dates</li> <li>○ FO specific award eligibility requirements</li> <li>○ Award duration</li> <li>○ Financial codes</li> <li>○ Appeal process rules; and</li> <li>○ Automated Notice of Decision notifications.</li> </ul> </li> </ul>
		2.2.5 Define Administration Related Requirements	<ul style="list-style-type: none"> <li>• Agency Administrators are able to define administration related requirements including, but not limited to: <ul style="list-style-type: none"> <li>○ Use of funds end date extension rules.</li> <li>○ Statement of accounts requirements.</li> <li>○ Contribution budget requirements.</li> <li>○ Allowable amendments.</li> </ul> </li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>○ Residual funds transfer eligibility requirements</li> <li>○ Transfer payment requirements; and</li> <li>○ Banking information requirements.</li> </ul>
<b>2.3 Program Literature Management</b>	Agency Administrators create, modify and publish program literature for a given funding opportunity. Sections of the literature may be re-purposed for different funding opportunities.	2.3.1 Define Program Literature	<ul style="list-style-type: none"> <li>● Agency Administrators are able to create program literature.</li> <li>● Agency Administrators are able to modify program literature.</li> <li>● Agency Administrators are able to include harmonized literature to increase consistency in the program literature available to stakeholders.</li> <li>● Agency Administrators are able to associate program literature to any FS node or group.</li> </ul>
		2.3.2 Prepare Program Literature for Publishing	<ul style="list-style-type: none"> <li>● Agency Administrators are able to identify the requirements for publishing program literature.</li> <li>● Agency Administrators are able to request that program literature be translated.</li> <li>● Agency Administrators are able to identify the communication requirements for the program literature.</li> <li>● Agency Administrators are able to generate a Communication Request to publish program literature. Agency Administrators are informed of the status of their Communication Request.</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>2.4 Committee Management</b>	Agency Administrators and Agency Analysts create the committees that review proposals, manage committee membership, and structure associated data for specific funding opportunities, including member participation in future engagements. These committees may be linked to multiple funding opportunities. Reviewers will be able to view their committee and all the various funding opportunities they are affiliated to.	2.4.1 Create Committee	<ul style="list-style-type: none"> <li>• Agency Administrators are able to define a committee.</li> <li>• Agency Administrators are able to associate a committee to any level of the funding structure.</li> </ul>
		2.4.2 Manage Committee Structure	<ul style="list-style-type: none"> <li>• Agency Administrators are able to manage a committee's structure by defining committee roles including, but not limited to: <ul style="list-style-type: none"> <li>○ Committee chair</li> <li>○ Science officer; or</li> <li>○ Reviewer</li> </ul> </li> </ul>
		2.4.3 Manage Committee Slate	<ul style="list-style-type: none"> <li>• Agency Administrators are able to identify candidates to become committee members.</li> <li>• Agency Administrators are able to invite candidates to become committee members.</li> <li>• Agency Administrators are able to access candidate responses.</li> <li>• Agency Analysts are able to generate a list of potential committee members (slate) based on candidate responses.</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Administrators are able to request approval for the list of potential committee members, evaluate the response and act accordingly.</li> </ul>
		2.4.4 Manage Committee Membership	<ul style="list-style-type: none"> <li>Agency Administrators are able to add a candidate to a committee.</li> <li>Agency Administrators are able to remove a member from a committee.</li> <li>Agency Administrators are able to manage a committee member's service period.</li> <li>Agency Administrators are able to request permission from a committee member before assigning them to a role within the committee.</li> <li>Agency Administrators are able to access committee member responses and take the appropriate action:                             <ul style="list-style-type: none"> <li>Assigning the committee member to the role; or</li> <li>Identifying another candidate for the role.</li> </ul> </li> </ul>
<b>2.5 Committee Meeting Management</b>	Agency Administrators set meeting schedules for committees and/or individuals, and share logistics with all review participants.	2.5.1 Schedule Meeting for Defined Set of Reviewers	<ul style="list-style-type: none"> <li>Agency Administrators are able to schedule a meeting that accommodates a defined set of Reviewers.</li> <li>Agency Administrators are able to invite Reviewers to the meeting.</li> <li>Reviewers are able to respond to a meeting invitation.</li> <li>Agency Administrators are able to access Reviewers' responses and act accordingly.</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Reviewers' responses are persisted in TGMS.</li> </ul>
		2.5.2 Align Reviewers to Defined Meeting Schedule	<ul style="list-style-type: none"> <li>Agency Administrators are able to identify reviewers that are available for a specific meeting date.</li> <li>Agency Administrators are able to invite Reviewers to a meeting on a specific date.</li> <li>Reviewers are able to respond to a meeting invitation.</li> <li>Agency Administrators are able to access Reviewers' responses and act accordingly.</li> <li>Reviewers' responses are persisted in TGMS.</li> </ul>
		2.5.3 Manage Meeting Details/Cost	<ul style="list-style-type: none"> <li>Agency Administrators are able to record the estimated travel cost for each attendee.</li> <li>Agency Administrators are able to record the estimated hospitality event cost.</li> <li>Agency Administrators are able to calculate the estimated budget for the meeting.</li> <li>Agency Administrators are able to request approval for the estimated budget for the meeting, evaluate the response and act accordingly.</li> <li>Financial Analysts are informed of the estimated cost of the meeting.</li> <li>Agency Administrators are able to record the actual travel cost for each attendee.</li> </ul>



**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to calculate the actual cost of the meeting.</li> <li>• Financial Analysts are informed of the actual cost of the meeting.</li> <li>• Agency Administrators are able to inform all relevant parties about the meeting logistics.</li> </ul>
		2.5.4 Manage Hospitality Details	<ul style="list-style-type: none"> <li>• Agency Administrators are able to record the estimated dinner cost for the meeting.</li> <li>• Agency Administrators are able to request approval for the estimated dinner cost, evaluate the response and act accordingly.</li> <li>• Agency Administrators are able to inform Finance of the estimated dinner cost.</li> <li>• Agency Administrators are able to record the actual dinner cost.</li> <li>• Agency Administrators are able to inform Finance of the actual dinner cost.</li> </ul>
		2.5.5 Manage Meeting Feedback	<ul style="list-style-type: none"> <li>• Meeting participants are surveyed about the hospitality meeting in order to capture feedback that is persisted in TGMS.</li> </ul>
<b>2.6 Funding Cycle Management</b>	Agency Administrators configure funding cycles (an iteration of a funding opportunity), and have the ability to modify the attributes (e.g., application requirements, funds available, etc.) if necessary, and launch a subsequent funding cycle.	2.6.1 Configure Funding Cycle	<ul style="list-style-type: none"> <li>• Agency Administrators are able to define funding cycle dates so that the solution will act in harmony with the defined dates such as not accepting applications after the application submission deadline.</li> <li>• Relevant stakeholders are informed about changes to funding cycles.</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to extend a funding cycle date on a collective or individual basis to accommodate exceptional circumstances.</li> <li>• Agency Administrators are able to maintain the elements of a funding cycle so that they are accurate and up to date.</li> <li>• Agency Administrators are able to establish institutional allocations specifying the amount of funding each institution may receive.</li> <li>• Agency Administrators are able to establish institutional submission quotas so that the institution knows the maximum number of applications they can submit.</li> <li>• Agency Administrators are able to identify exceptions to institutional quota rules so that some applications are not counted against the quota.</li> <li>• Agency Administrators are able to define state change milestones so that the integrity of the data is preserved.</li> <li>• Agency Administrators are able to establish institutional award quotas so that the institution knows how many awards they may be administering.</li> <li>• Agency Administrators are able to identify who is responsible for approving applications at each administering</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>organization so that they can submit applications to the agency.</p> <ul style="list-style-type: none"> <li>• Agency Administrators are able to modify inherited FO requirements for a specific funding cycle to satisfy a business need.</li> </ul>
		2.6.2 Obtain Funding Cycle Approval Authority	<ul style="list-style-type: none"> <li>• Agency Administrators are able to manage the approval authority for a funding cycle: <ul style="list-style-type: none"> <li>○ Agency Administrators are able to associate someone to a funding cycle as an approval authority.</li> <li>○ Agency Administrators are able to disassociate someone from a funding cycle.</li> </ul> </li> </ul>
<b>2.7 Key Performance Indicators (KPI) Management</b>	Agency Analysts create and modify key performance indicators so that they are able to report against them. Agency Analyst associate KPIs to any level of the funding structure.	2.7.1 Define Key Performance Indicators	<ul style="list-style-type: none"> <li>• Agency Administrators are able to create and modify key performance indicators.</li> <li>• Agency Administrators are able to associate KPIs to a funding structure node or group.</li> <li>• Agency Administrators are able to determine if approval is required in order to complete the definition of the KPIs.</li> <li>• Agency Administrators are able to request approval for defined KPIs, evaluate the response and act accordingly.</li> </ul>
<b>2.8 Funding Partner Management</b>	Agency Administrators identify and attach funding partner organization(s) and the associated collaborative agreements that dictate their contributions at any level in the funding structure. Agency Administrators are able to establish eligibility and fund-matching	2.8.1 Manage Funding Partner	<ul style="list-style-type: none"> <li>• Agency Administrators are able to define a funding partner organization and associate it to any funding structure node.</li> <li>• Agency Administrators are able to capture the budget contribution, if any, of a</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	requirement guidelines for organizations participating in the application; as defined in the collaborative agreement.		<p>funding partner organization to the relevant funding structure node.</p> <ul style="list-style-type: none"> <li>Agency Administrators are able to specify eligibility and/or fund matching requirements for application partner organizations.</li> </ul>
		2.8.2 Define Organizational Responsibilities	<ul style="list-style-type: none"> <li>Agency Administrators are able to define if a funding partner organization is responsible for the intake of applications for a funding opportunity.</li> <li>Agency Administrators are able to define which funding partner organization has financial responsibility for a funding opportunity so that roles and responsibilities are clear.</li> <li>Agency Administrators are able to define if a funding partner organization is responsible for the assessment of applications for a funding opportunity.</li> <li>Agency Administrators are able to define if a funding partner organization is responsible for the administration of awards for a funding opportunity.</li> </ul>
<b>2.9 Node Closing (Acquit)</b>	Agency Administrators close an FS node.	2.9.1 Close Funding Structure Node/Group	<ul style="list-style-type: none"> <li>Agency Administrators are able to record the pending deactivation of an FS Node or Group.</li> <li>Agency Administrators are able to identify the communications requirements for the pending deactivation of an FS Node or Group.</li> </ul>

**2.0 Arrange – This series of capabilities supports overall program design and implementation.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to generate a Communication Request to inform stakeholders of the pending deactivation. Agency Administrators are informed of the status of their Communication Request.</li> <li>• Agency Administrators are able to deactivate an FS Node or Group.</li> <li>• Agency Administrators require that child nodes be deactivated when a parent node is deactivated.</li> <li>• Agency Administrators require that any relationship between a deactivated FS Node and FS Group also be deactivated.</li> <li>• Agency Administrators require that all related program literature reflect the deactivation of the relevant FS Node or Group.</li> <li>• Agency Administrators are able to close an FS Node or Group when all relevant conditions, such as no active awards for a competition, are satisfied.</li> </ul>

## “Apply” Business Capability

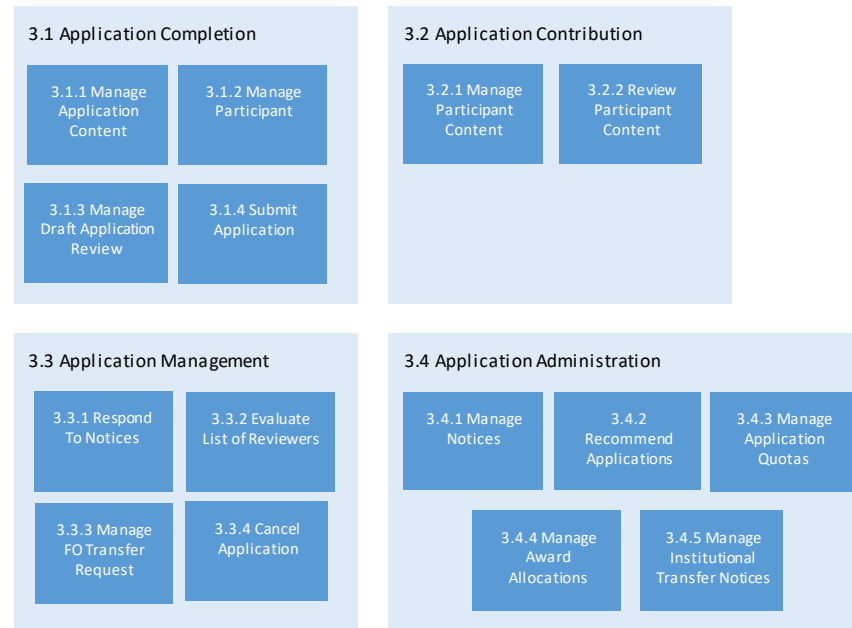


Figure 5: “Apply” Business Capabilities

Table 4: “Apply” Business Capability Descriptions

3.0 Apply: This series of capabilities supports the submission and management of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>3.1 Application Completion</b>	The Applicant can prepare one or many applications, by capturing, re-using and managing information and supporting documentation which generally consists of CV information for one or many participants (e.g.,	3.1.1 Manage Application Content	<ul style="list-style-type: none"> <li>Applicants are able to select from a list of their in-progress applications.</li> <li>Applicants are able to update an application to provide missing content and/or modify existing content.</li> </ul>

**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	<p>co-applicants, collaborators, application partner organizations, etc.), a research proposal, budget information, sponsor letters, and any other relevant attachments; including videos in some cases. In some instances, Research Administrators must nominate applicants and complete an application on their behalf.</p> <p>The applicant is informed that the application is correct, complete, and eligible to be submitted.</p>		<ul style="list-style-type: none"> <li>• Applicants are able to associate their CV to the application.</li> <li>• Applicants are able to revise an application returned by the agency/institution and re-submit it.</li> <li>• Applicants are able to create an application.</li> <li>• Applicants are able to manage supporting documentation for an application.</li> <li>• Applicants are informed when their application is complete enough to submit so that they can submit it.</li> </ul>
		3.1.2 Manage Participant	<ul style="list-style-type: none"> <li>• Applicants are able to invite a participant to contribute to an application.</li> <li>• Applicants are able to include a description of the participant's role so that they know what their involvement and responsibilities will be.</li> <li>• Participants are able to respond to an invitation to participate.</li> <li>• Participants are able to accept or decline the terms and conditions of participating in an application.</li> <li>• Participants are able to request approval from their institution so that they can participate on an application from another institution. Participants are able</li> </ul>

**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>to evaluate the institution's response and act accordingly.</p> <ul style="list-style-type: none"> <li>• Participants are able to withdraw from an application. Applicants are informed of the participant's decision.</li> <li>• Applicants are able to remove a participant from the application. Participants and their respective administering organization are informed of the decision.</li> <li>• Applicants are able to review participation invitation responses so that they know which participants have accepted. Applicants are able to delegate appropriate access to those participants who have accepted.</li> <li>• Applicants are able to establish deadlines for participant content.</li> </ul>
		3.1.3 Manage Draft Application Review	<ul style="list-style-type: none"> <li>• Applicants are able to invite an advisor to review a draft application. Applicants are informed of the advisor's response.</li> <li>• Applicants are able to share their application with an advisor who accepts the invitation to perform a draft review.</li> <li>• Applicants are able to withdraw their invitation to an advisor. Advisors are informed of the applicant's decision.</li> <li>• Applicants are able to review draft application feedback.</li> </ul>



**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Advisors are able to respond to an invitation to review a draft application.</li> <li>• Advisors are able to access a draft application in order to begin the review.</li> <li>• Advisors are able to annotate a draft application in order to provide feedback to applicant.</li> <li>• Advisors are able to withdraw from a draft application review. Applicants are informed of the advisor's decision.</li> </ul>
		3.1.4 Submit Application	<ul style="list-style-type: none"> <li>• Applicants are able to view the Terms and Conditions of Applying including, but not limited to, being considered for joint initiatives and/or priority announcements.</li> <li>• Applicants are able to accept or decline the Terms and Conditions of Applying.</li> <li>• If the Terms and Conditions for Applying have been accepted, Applicants are able to submit an application to their respective administering institution or agency; depending upon the funding opportunity requirements.</li> <li>• Applicants are notified that their application has been received.</li> <li>• Applicants are able to forward their application to a research administrator so that it can be reviewed. The Research Administrator is able to access and review the application.</li> </ul>

### 3.0 Apply: This series of capabilities supports the submission and management of an application.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Applicants are reminded of an impending submission deadline.</li> <li>• Applicants are able to request an extension to a submission deadline from the relevant research administrator or agency, depending upon the funding opportunity requirements.</li> <li>• Applicants are able to delete applications that have not been submitted (inactive). TGMS is not able to delete inactive applications until the relevant data archive requirements have been satisfied.</li> </ul>
<b>3.2 Application Contribution</b>	The Applicant may prepare their application in collaboration with some combination of application level funding partners, domestic and international applicants, non-academic participants, and trainees. These application participants (including co-applicants, collaborators, application partner organizations, etc.) are able to access and review the application content, and enter the required contribution associated with their role within the application.	3.2.1 Manage Participant Content	<ul style="list-style-type: none"> <li>• Participants are able to access an application they have agreed to participate in.</li> <li>• Participants are able to manage the content of an application in which they are participating.</li> <li>• Participants are able to save their updates to an application.</li> <li>• Participants are able to indicate that they have completed their contribution to the application.</li> <li>• Applicants are informed when a participant has completed their contribution.</li> <li>• Participants are able to create / update a CV so that they can associate it to an application.</li> </ul>

3.0 Apply: This series of capabilities supports the submission and management of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Participants are able to associate their relevant CV data to an application so that the application is accurate and up to date.</li> <li>• Participants are able to associate their CV to an application they are participating in.</li> <li>• Application partner organizations are able to provide eligibility related information, so that the agency can determine if the organization is eligible to participate on an application.</li> </ul>
		3.2.2 Review Participant Content	<ul style="list-style-type: none"> <li>• Applicants are able to review a participant's contribution to an application.</li> <li>• Applicants are able to inform the participant about the status of my review of their contribution.</li> </ul>
<b>3.3 Application Management</b>	The Applicant is able to respond to decision notices such as notices of decision, award offers, requests for supplementary information, requests for a revised application, or proof of enrolment etc. The applicant is able to withdraw the application or transfer the application to another funding opportunity.	3.3.1 Respond to Notices	<ul style="list-style-type: none"> <li>• Applicants are able to accept an offer of an award and the corresponding terms and conditions. Applicants are able to complete the appropriate documentation so that their award can be activated. Relevant stakeholders are informed of the applicant's decision.</li> <li>• Applicants are able to decline an offer of an award. Relevant stakeholders are informed of the applicant's decision.</li> <li>• Applicants are able to accept a supplemental funding request so that</li> </ul>

**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>their application can be considered for additional funds.</p> <ul style="list-style-type: none"> <li>• Applicants are able to decline a supplemental funding request.</li> <li>• Applicants are able to accept a joint initiative funding request so that their application can be considered for funding by a funding partner organization.</li> <li>• Applicants are able to decline a joint initiative funding request.</li> <li>• Applicants are able to submit supplementary information in response to a request from their administering organization or agency.</li> <li>• Applicants are able to submit a revised application in response to a request from their administering organization or agency.</li> </ul>
		3.3.2 Evaluate List of Reviewers	<ul style="list-style-type: none"> <li>• Applicants are informed that a list of proposed reviewers is available for them to assess.</li> <li>• Applicants are able to assess a list of proposed reviewers.</li> <li>• Applicants are able to inform agency staff of the results of their assessment.</li> </ul>
		3.3.3 Manage FO Transfer Request	<ul style="list-style-type: none"> <li>• Applicants are able to accept a funding opportunity transfer request by the agency so that an application can be</li> </ul>

3.0 Apply: This series of capabilities supports the submission and management of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>created for the appropriate funding opportunity.</p> <ul style="list-style-type: none"> <li>Applicants are able to decline a funding opportunity transfer request by the agency.</li> </ul>
		3.3.4 Cancel Application	<ul style="list-style-type: none"> <li>Applicants are able to cancel an application.</li> <li>Research Administrators are able to cancel an application based on input from the Applicant.</li> <li>All relevant stakeholders are notified when an application has been cancelled.</li> </ul>
<b>3.4 Application Administration</b>	<p>Research Administrators review applications, endorse multiple applications, request supplementary information, request new or revised applications, and submit multiple applications to the appropriate Agency. Research Administrators are able to approve the participation of applicants from their institution on a project administered by a different institution. Certain funding opportunities require that the Research Administrator manage a quota of applications that can be submitted to the agency or an allocation of funds awarded. These processes may involve multiple Research Administrators working together to complete.</p>	3.4.1 Manage Notices	<ul style="list-style-type: none"> <li>Research Administrators are able to approve a participation request so that a participant from their institution can participate on another institution's application.</li> <li>Research Administrators are able to deny a participation request.</li> <li>Research Administrators are able to inform the applicant of an unsuccessful eligibility assessment.</li> <li>Research Administrators are able to request supplementary information for an application from the applicant.</li> <li>Research Administrators are able to request a revised application from the applicant</li> <li>Research Administrators are able to establish application deadline dates for</li> </ul>

**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>their institution. Applicants are informed of these dates.</p> <ul style="list-style-type: none"> <li>• Research Administrators are able to extend an application deadline date on a collective or individual basis to accommodate exceptional circumstances. Applicants are informed of these changes to deadline dates.</li> <li>• Research Administrators are informed when an application is submitted so that they can review it. Research Administrators are able to access those applications.</li> <li>• Research Administrators are notified that an application involving a researcher from their institution is in progress so that they can monitor it and plan their workload accordingly.</li> <li>• Research Administrators are able to reinstate an application.</li> </ul>
		3.4.2 Recommend Applications	<ul style="list-style-type: none"> <li>• Research Administrators are able to approve one, some or all applications submitted to the institution. Approved applications are submitted to the relevant agency.</li> <li>• Research Administrators and Applicants receive confirmation that the approved applications have been submitted.</li> <li>• Research Administrators and Applicants receive confirmation when approved</li> </ul>

**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			applications have been received by the agency.
		3.4.3 Manage Application Quotas	<ul style="list-style-type: none"> <li>• Research Administrators are able to apply approved applications against the institution's application quota.</li> <li>• Research Administrators are informed how many additional applications they can submit.</li> <li>• Research Administrators are able to establish and maintain distribution formulas for their institution's application quota so that they can distribute the institution's quota among several faculties, if necessary.</li> </ul>
		3.4.4 Manage Award Allocations	<ul style="list-style-type: none"> <li>• Research Administrators are able to apply approved applications against the institution's award allocation amount.</li> <li>• Research Administrators are informed how many additional applications they can submit.</li> <li>• Research Administrators are able to establish and maintain distribution formulas for their institution's award allocation amount so that they can distribute their allocation amount among several faculties, if necessary.</li> </ul>
		3.4.5 Manage Institutional Transfer Notices	<ul style="list-style-type: none"> <li>• Research Administrators are able to review inter-institutional transfer notices so that they can provide the necessary documentation to the agency.</li> </ul>

**3.0 Apply: This series of capabilities supports the submission and management of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"><li>• Research Administrators are able to provide the necessary documentation to the agency so that the agency can complete the inter-institutional transfer.</li></ul>



## “Assess” Business Capability

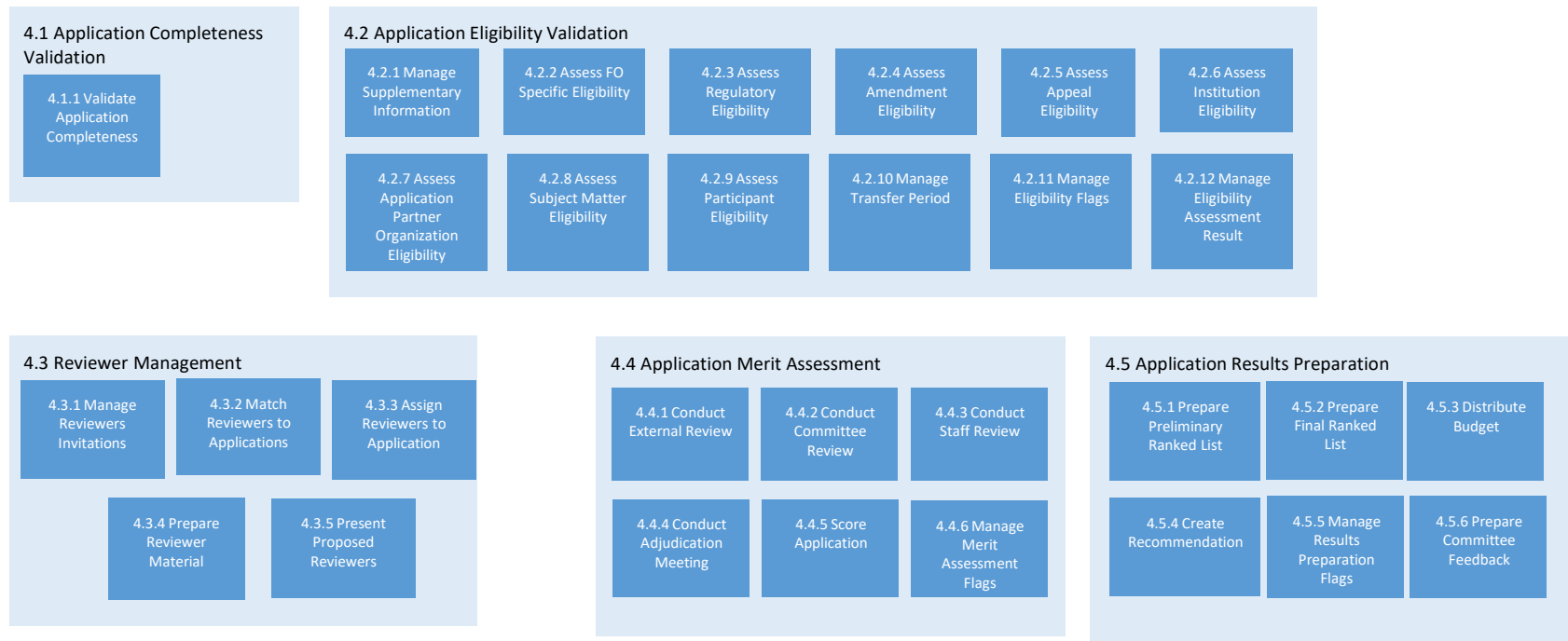


Figure 6: “Assess” Business Capabilities

Table 5: “Assess” Business Capability Descriptions

4.0 Assess: This series of capabilities supports the assessment of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>4.1 Application Completeness Validation</b>	Research Administrators and Agency Administrators are able to confirm that a submitted application is complete enough to proceed with subsequent assessment processes.	4.1.1 Validate Application Completeness	<ul style="list-style-type: none"> <li>• Research Administrators and/or Agency Administrators are able to validate the completeness of an application. This includes, but is not limited to, verifying structured and unstructured data.</li> <li>• TGMS is able to determine the next steps for the application based upon the results of the application completion assessment and funding opportunity specifications. This includes, but is not limited to: <ul style="list-style-type: none"> <li>○ Initiating the eligibility assessment processes.</li> <li>○ Requesting a revised application from the applicant.</li> <li>○ Requesting supplementary information from the applicant; or</li> <li>○ Rejecting the application.</li> </ul> </li> <li>• The applicant is informed that the results of the application completion assessment are available.</li> </ul>
<b>4.2 Application Eligibility Validation</b>	Research Administrators, Agency Analysts, and Agency Administrators conduct eligibility validation in order to assess the eligibility of the application against the funding opportunity. This includes the assessment of applicant eligibility, subject matter eligibility, participant eligibility, applicant partner organization eligibility, institutional eligibility,	4.2.1 Manage Supplementary Information	<ul style="list-style-type: none"> <li>• Research Administrators and/or Agency Administrators are able to request supplementary information from applicants to address identified issues.</li> <li>• Applicants are able to associate supplementary information to their application.</li> </ul>

#### 4.0 Assess: This series of capabilities supports the assessment of an application.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	regulatory eligibility and funding opportunity specific eligibility. Depending on the funding opportunity, committee executives such as Chairs or Scientific Officers (responsible for supporting the Chair) are able to move applications between merit review committees, record, and audit the history of transfers. Agency Administrators assess eligibility of applications, and then are able to make requests to applicants securely through TGMS.		<ul style="list-style-type: none"> <li>Research Administrators and/or Agency Administrators are informed when an applicant has provided supplementary information.</li> </ul>
		4.2.2 Assess FO Specific Eligibility	<ul style="list-style-type: none"> <li>Research Administrators and/or Agency Administrators are able to determine if the application meets the requirements of the funding opportunity.</li> </ul>
		4.2.3 Assess Regulatory Eligibility	<ul style="list-style-type: none"> <li>Research Administrators and/or Agency Administrators are able to assess regulatory eligibility so that the applicant and the administering organization are in compliance with established protocols.</li> </ul>
		4.2.4 Assess Amendment Eligibility	<ul style="list-style-type: none"> <li>Agency Administrators are able to determine the eligibility of an amendment using the established administration related requirements for the relevant funding opportunity.</li> </ul>
		4.2.5 Assess Appeal Eligibility	<ul style="list-style-type: none"> <li>Agency Administrators are able to determine if an appeal meets the relevant agency's appeal policy requirements and if there are grounds for the appeal.</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		4.2.6 Assess Institution Eligibility	<ul style="list-style-type: none"> <li>Agency Administrators are able to determine if the administering organization meets the requirements to administer grants and awards.</li> <li>Agency Administrators are able to determine if a university/college confers degrees and/or diplomas in the agency's fields.</li> </ul>
		4.2.7 Assess Application Partner Organization Eligibility	<ul style="list-style-type: none"> <li>Research Administrators and/or Agency Administrators are able to assess application partner organization eligibility so that they can determine if the organization can participate on the application.</li> </ul>
		4.2.8 Assess Subject Matter Eligibility	<ul style="list-style-type: none"> <li>Research Administrators and/or Agency Administrators are able to assess the eligibility of the subject matter so that they can determine if the application is within the agency's mandate.</li> <li>Agency Administrators are able to determine if an application is transferrable to another funding opportunity so that a funding opportunity transfer request can be generated.</li> <li>Agency Administrators are able to evaluate an applicant's response to a funding opportunity transfer request so that they can take the appropriate action such as requesting that relevant data be copied to a new application.</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Administrators are able to declare an application ineligible so that a notice of decision can be generated.</li> </ul>
		4.2.9 Assess Participant Eligibility	<ul style="list-style-type: none"> <li>Research Administrators and/or Agency Administrators are able to assess each participant's eligibility.</li> <li>Research Administrators and/or Agency Administrators are able to inform the applicant of ineligible participants so that they can take appropriate action such as, but not limited to:                             <ul style="list-style-type: none"> <li>Removing the participant;</li> <li>Replacing the participant; or</li> <li>Modifying the role of the participant.</li> </ul> </li> </ul>
		4.2.10 Manage Transfer Period	<ul style="list-style-type: none"> <li>Agency Administrators and/or Reviewers are able to confirm the review committee selected by the applicant based on the subject matter of the application.</li> <li>Agency Administrators and/or Reviewers are able to suggest a more suitable review committee based on the subject matter of the application.</li> <li>Agency Administrators and/or Reviewers are able to assign applications to review committees.</li> </ul>
		4.2.11 Manage Eligibility Flags	<ul style="list-style-type: none"> <li>Agency Administrators are able to flag an application so that an issue identified during the eligibility validation process can be addressed.</li> </ul>

4.0 Assess: This series of capabilities supports the assessment of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Administrators are able to remove a flag from an application when the issue with the application has been addressed</li> </ul>
		4.2.12 Manage Eligibility Assessment Result	<ul style="list-style-type: none"> <li>Agency Administrators are able to declare an application eligible in order to initiate merit assessment processes.</li> <li>Agency Administrators are able to declare an application ineligible so that a notice of decision can be generated.</li> </ul>
<b>4.3 Reviewer Management</b>	Reviewers receive invitations from Agency Administrators, agree to the GoC Conflict of Interest and Confidentiality policy, gain access to the applications, complete their conflict and ability to review requirements, and conduct their reviews. Reviewers are able to recommend external reviewers and vet the external reviewers that were suggested by the applicant. Agency Administrators track their responses and availabilities, match reviewers to appropriate applications based on ability to review, expertise, conflict of interest or language conflicts. Agency Administrators assign Reviewers (or staff in some cases) to funding applications within TGMS. Where appropriate, Agency Administrators present proposed reviewers to Applicants and/or Research Administrators.	4.3.1 Manage Reviewer Invitations	<ul style="list-style-type: none"> <li>Agency Administrators are able to invite reviewers to evaluate applications.</li> <li>Agency Administrators are able to manage (create, modify) a reviewer invitation.</li> <li>Agency Administrators are informed when a reviewer responds to an invitation so that they can take appropriate action.</li> <li>Agency Administrators are able to inform reviewers that their services will not be required.</li> <li>Reviewers are reminded to respond to their invitations if they have not responded within a predefined period of time.</li> <li>Reviewers are able to accept or decline an invitation</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Reviewers are able to identify personal conflicts when responding to an invitation.</li> <li>• Agency Administrators are able to record the reason that a Reviewer declines an invitation.</li> <li>• Agency Administrators are able to record any personal conflicts identified by the Reviewer in their response.</li> <li>• Agency Administrators are able to confirm the availability of identified reviewers so that they can find replacement reviewers if necessary.</li> </ul>
		4.3.2 Match Reviewers to Applications	<ul style="list-style-type: none"> <li>• Agency Administrators are able to match Reviewers to applications so that the applications are assessed by Reviewers with the appropriate expertise.</li> <li>• Agency Administrators are able to capture a Reviewer's reasons for declining an invitation (such as a conflict) so that they are reportable and auditable.</li> <li>• Agency Administrators are able to provide a list of applications to potential Reviewers so that they can identify conflicts and/or set their comfort/expertise ratings</li> <li>• Agency Administrators are able to generate a list of proposed reviewers for an application. Factors such as subject</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>matter expertise, language and potential conflicts need to be considered.</p> <ul style="list-style-type: none"> <li>• Program staff is able to automatically identify conflicts so that they assign files while avoiding conflicts of interest.</li> <li>• Program staff is able to match reviewers with the appropriate language profile so files can be reviewed in the appropriate language.</li> </ul>
		4.3.3 Assign Reviewers to Application	<ul style="list-style-type: none"> <li>• TGMS is able to assign applications to Reviewers taking into consideration factors such as, but not limited to: <ul style="list-style-type: none"> <li>○ Language issues.</li> <li>○ Subject matter expertise; and</li> <li>○ Documented conflicts.</li> </ul> </li> <li>• Reviewers are able to accept or refuse their assignments. Reviewers are able to record their rational for any refused assignment.</li> <li>• Agency Administrators are able to assign Reviewers to an application so that they can assess the application.</li> <li>• Agency Administrators modify Reviewer assignments to address an issue with the assignments.</li> </ul>
		4.3.4 Prepare Reviewer Material	<ul style="list-style-type: none"> <li>• TGMS prepares a version of the application for peer review.</li> <li>• Reviewers are notified that reviewer material is available so that they may begin their review assignments.</li> </ul>



4.0 Assess: This series of capabilities supports the assessment of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		4.3.5 Present Proposed Reviewers	<ul style="list-style-type: none"> <li>Agency Administrators are able to present proposed Reviewers to an applicant so that they can review them.</li> <li>Agency Administrators are able to evaluate an applicant's response to a list of potential Reviewers so that they can replace any Reviewer that is not suitable.</li> </ul>
<b>4.4 Application Merit Assessment</b>	Reviewers provide written reports and/or scores to an external or committee review panel in preparation for an adjudication meeting. During the meeting, Reviewers may be asked to vote by providing scores in real-time. Furthermore, they have the ability to modify their pre-meeting scores or update their written reports post-meeting if needed. Reviewers are sometimes required to communicate, by video, teleconference or in person, with Agency Administrators or other Reviewers to ask questions or collaborate on a review. Agency Administrators access scores and written reviews prior to the meeting, during the meeting and after the meeting, and track application review statuses. In some funding opportunities (e.g., Canada Graduate Scholarships - Masters), the review process is handled at the institution level. The Agencies receive the results of the institution's review.	4.4.1 Conduct External Review	<ul style="list-style-type: none"> <li>External reviewers are able to complete an external reviewer report so that it can be used in the assessment of an application.</li> <li>External reviewer reports are persisted in TGMS and can be accessed by relevant stakeholders such as, but not limited to: <ul style="list-style-type: none"> <li>Assigned committee members;</li> <li>Agency Administrators;</li> <li>Agency Analysts; and</li> <li>Applicants.</li> </ul> </li> <li>Agency Administrators are able to ensure that external reviewer reports are made available to the appropriate internal reviewers.</li> <li>Agency Administrators are able to review external reviewer reports to identify any required modification or flag it.</li> <li>External reviewers are able to inform Agency Administrators that they are withdrawing from the review of the application.</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to record the reason why an external reviewer withdraws.</li> <li>• External reviewers are able to access and modify their external reviewer reports in response to requests from Agency Administrators.</li> <li>• External reviewers are sent a reminder message if they have not submitted their external reviewer report within a predefined period.</li> </ul>
		4.4.2 Conduct Committee Review	<ul style="list-style-type: none"> <li>• Committee members are informed that the external reviewer reports for the applications they are reviewing are available for them to access.</li> <li>• Committee members are able to produce and share a committee reviewer report with other committee members.</li> <li>• Committee reviewer reports are persisted in TGMS and can be accessed by relevant stakeholders such as, but not limited to: <ul style="list-style-type: none"> <li>○ Assigned committee members;</li> <li>○ Agency Administrators;</li> <li>○ Agency Analysts; and</li> <li>○ Applicants.</li> </ul> </li> <li>• Committee members are sent a reminder message if they have not submitted their</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>committee reviewer report within a predefined period of time.</p> <ul style="list-style-type: none"> <li>• Committee members are able to inform Agency Administrators that they are withdrawing from the review of the application.</li> <li>• Agency Administrators are able to record the reason why a committee member withdraws.</li> </ul>
		4.4.3 Conduct Staff Review	<ul style="list-style-type: none"> <li>• Agency Administrators are able to access, and review assigned applications.</li> <li>• Staff reviewer reports are persisted in TGMS and can be accessed by relevant stakeholders such as, but not limited to: <ul style="list-style-type: none"> <li>○ Agency Administrators.</li> <li>○ Agency Analysts; and</li> <li>○ Applicants.</li> </ul> </li> </ul>
		4.4.4 Conduct Adjudication Meeting	<ul style="list-style-type: none"> <li>• Committee members (Reviewers) are able to change their scores and/or written report during the adjudication meeting so that they reflect the committee's recommendation.</li> <li>• Agency Administrators are able to reduce an application's budget during an adjudication meeting so that it reflects the committee's recommendation.</li> <li>• Committee chairs (Reviewers) are able to sign off on the committee's final ranked list so that the committee's recommendations are finalized.</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Science Officers are able to produce a report for each application.</li> <li>Committee members (Reviewers) and Agency Administrators are able to record adjudication meeting discussions for future reference.</li> </ul>
		4.4.5 Score Application	<ul style="list-style-type: none"> <li>Committee members (Reviewers) are able to submit scores for assigned applications.</li> <li>Committee members (Reviewers) are able to modify submitted scores.</li> <li>Committee members (Reviewers) are sent a reminder message if they have not submitted their application score within a predefined period of time.</li> <li>Committee members (Reviewers) are able to inform Agency Administrators that they are withdrawing from the scoring of the application.</li> <li>Agency Administrators are able to record the reason why a committee member (Reviewer) withdraws.</li> <li>Committee members (Reviewers) are able to break a tie during the scoring of an application with a scoring discrepancy so that a decision can be made.</li> </ul>
		4.4.6 Manage Merit Assessment Flags	<ul style="list-style-type: none"> <li>Agency Administrators are able to flag an application so that an issue identified during the merit assessment process can be addressed.</li> </ul>

4.0 Assess: This series of capabilities supports the assessment of an application.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Reviewers are able to identify an issue with an application so that it can be flagged.</li> <li>Agency Administrators are able to remove a flag from an application when the issue with the application has been addressed</li> </ul>
<b>4.5 Application Results Preparation</b>	Agency Administrators can capture committee feedback and share it with relevant stakeholders in a secure manner. The scores lead to a rank-order and/or binned lists of fundable applications. These lists serve to prepare preliminary and final funding scenarios. These scenarios will take into consideration the success rates, equity groups, average grant sizes, budget amounts, budget envelopes, and/or pools. However, the capability to direct funds to successful applications in specific areas of research (e.g., Career Stage, Indigenous Research, Digital Economy, etc.) must exist. Agency Administrators are able to flag applications for additional scrutiny.	4.5.1 Prepare Preliminary Ranked List	<ul style="list-style-type: none"> <li>Agency Administrators are able to normalize an application's scores so that differences in scores are minimized.</li> <li>Agency Administrators are able to generate a preliminary ranked list so that the committee members (Reviewers) can view the order of applications within the committee.</li> </ul>
		4.5.2 Prepare Final Ranked List	<ul style="list-style-type: none"> <li>Agency Administrators are able to amalgamate committee final ranked lists to make so that a ranked list for the funding opportunity is created.</li> <li>Agency Administrators are able to adjust proposed bin values so that they are balanced.</li> </ul>

#### 4.0 Assess: This series of capabilities supports the assessment of an application.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to specify balancing criteria so that the number of funded applications can be optimized.</li> <li>• Agency Administrators are able to generate a funding opportunity ranked list so that it can be validated by management.</li> <li>• Agency Administrators are able to generate a committee final ranked list so that it can be validated.</li> <li>• Management is able to approve the funding opportunity ranked list so that funding decisions can be finalized.</li> <li>• Management is able to validate the balanced bin values so that funding decisions can be finalized.</li> </ul>
		4.5.3 Distribute Budget	<ul style="list-style-type: none"> <li>• Agency Administrators are able to test various budget distribution scenarios to maximize the number of funded applications. One example is to reduce awarded amounts by a specific percentage e.g., 10%.</li> <li>• Agency Administrators are able to distribute a competition budget amongst funded applications using the most appropriate scenario.</li> <li>• Agency Administrators are able to associate an application to a specific competition budget so that they are</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>aware which budget is funding the application.</p> <ul style="list-style-type: none"> <li>• Agency Administrators are able to validate budget distribution so that committee final ranked lists can be validated.</li> <li>• Agency Administrators are able to decrease a competition budget so that it reflects the current amount of available funds.</li> </ul>
		4.5.4 Creation Recommendation	<ul style="list-style-type: none"> <li>• Agency Administrators are able to make a recommendation for an application so that it can be processed.</li> </ul>
		4.5.5 Manage Results Preparation Flags	<ul style="list-style-type: none"> <li>• Agency Administrators are able to flag an application so that an issue identified during the results preparation process can be addressed.</li> <li>• Agency Administrators are able to remove a flag from an application when the issue with the application has been addressed.</li> </ul>
		4.5.6 Prepare Committee Feedback	<ul style="list-style-type: none"> <li>• Committee members (Reviewers) are able to provide comments on an application.</li> <li>• Committee members (Reviewers) are able to provide comments on another committee member's review.</li> <li>• Agency Administrators are able to finalize committee member (Reviewer)</li> </ul>

**4.0 Assess: This series of capabilities supports the assessment of an application.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>comments so that they can be made available to the applicant.</p> <ul style="list-style-type: none"><li>• Agency Administrators are able to persist committee member (Reviewer) comments in TGMS so that the agency can provide feedback to the applicant.</li></ul>



## “Award” Business Capability



Figure 7: “Award” Business Capabilities

Table 6: “Award” Business Capability Descriptions

5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>5.1 Recommendation Management</b>	Agency Administrators award funds to applications recommended for funding, including joint initiatives and supplements. In some cases, funds are awarded on a conditional basis (closely related to requirement flags applied during the Assess phase). Applicants meet these conditions by providing additional information after receiving decision notices. Staff can reallocate unused budget amounts (including partner budgets) within the funding	5.1.1 Manage Award Decision	<ul style="list-style-type: none"> <li>Agency Administrators are able to validate the decision to determine if it is correct.</li> <li>Agency Administrators are able to request that eligibility be assessed so that the recommendation can be updated if required.</li> <li>Agency Administrators are able to update a recommendation to reflect the outcome of an eligibility assessment.</li> <li>Agency Administrators are able to inform the Applicant of the successful completion of a stage</li> </ul>

**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	structure node, communicate competition results, and manage institutional eligibility recommendations.		in a multi-stage funding opportunity so that the Applicant is able to submit the application for the next stage.
		5.1.2 Manage Institutional Eligibility Recommendation	<ul style="list-style-type: none"> <li>• Agency Analysts are able to approve an institution's eligibility so that they can administer funds.</li> <li>• Agency Analysts are able to generate a document of eligibility conditions that the institution must resolve in order to be eligible to administer funds.</li> <li>• Agency Analysts are able to deny an institution's eligibility so that they cannot administer funds.</li> <li>• The institution is informed that a decision about institutional eligibility is available.</li> </ul>
		5.1.3 Manage Joint Initiative Recommendation	<ul style="list-style-type: none"> <li>• Agency Administrators are able to identify applicants who may be eligible for joint initiative funding and/or priority announcements.</li> <li>• Agency Administrators are able to generate a joint initiative funding request so that an applicant can be considered for funding by a funding partner organization. Agency Administrators are informed when a response is available.</li> <li>• Agency Administrators are able to evaluate a response to a joint initiative funding request so that they can determine what action to take.</li> <li>• Agency Administrators are able to update the relevant budget envelope so that unused funds may be reallocated.</li> </ul>

**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Administrators are able to apply the joint initiative recommendation so that they can modify an existing award or create a new one.</li> </ul>
		5.1.4 Manage Supplemental Award Recommendation	<ul style="list-style-type: none"> <li>Agency Administrators are able to identify applicants who are eligible for supplement funding.</li> <li>Agency Administrators are able to request approval from an applicant to apply for supplemental funding. Agency Administrators are able to evaluate the applicant's response and act accordingly.</li> <li>Agency Administrators are able to prepare material for third-party review so that an applicant can be considered for a supplemental award. Agency Administrators are informed when a response is available.</li> <li>Agency Administrators are able to review the outcome of a supplemental award request so that they know whether or not to create the supplemental award.</li> </ul>
		5.1.5 Obtain Ministerial Approval	<ul style="list-style-type: none"> <li>Program staff is able to prepare the ministerial approval documentation so that the minister's office has the necessary documentation to make a decision.</li> <li>Program staff is able to determine if ministerial approval is required so that they can prepare the necessary documentation.</li> <li>Program staff is able to review the minister's decision so that they know whether to update the existing recommendation.</li> </ul>

**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		5.1.6 Communicate Competition Results	<ul style="list-style-type: none"> <li>• Agency Administrators are able to create a Competition Results report. All relevant stakeholders are informed of its existence.</li> <li>• Research Administrators are able to create a Notice of Decision Report for their institution so that they are aware of the competition results.</li> </ul>
		5.1.7 Generate Decision Notice	<ul style="list-style-type: none"> <li>• Agency Administrators are able to create a Notice of Decision for each award/child award to inform Applicants and participants of the outcome of the competition and any possible award conditions.</li> <li>• Agency Administrators are able to create a new Notice of Decision when the award conditions have been met.</li> <li>• Agency Administrators are able to generate an Assessment Feedback Report. Applicants are informed of its existence.</li> <li>• Program staff is able to notify relevant participants when decision documents are available so that they can review them.</li> <li>• Applicants are notified when decision documents are available so that they can review them.</li> <li>• Reviewers are informed of the results of the applications that they have reviewed so that they feel that the results of their efforts were worthwhile.</li> <li>• Reviewers are recognized by the Agency for their contributions so that they can update their CV.</li> </ul>

5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Program staff is able to recognize reviewers for their contributions so that they can update their CVs.</li> </ul>
<b>5.2 Award Management</b>	Agency Administrators create awards, obtain financial approvals, manage funding and payment schedules, update existing awards (including adjusting award amounts, or closing awards if necessary).	5.2.1 Obtain Section 32/34 Approval	<ul style="list-style-type: none"> <li>Program staff is able to generate a list of awards so that section 32/34 approval can be requested.</li> <li>Program staff is able to request section 32/34 approval so that awards can be created or updated.</li> <li>Program staff is able to apply the recommendation to a list of awards so that they can request section 32/34 approval.</li> <li>Program staff is able to know when section 32/34 approval is received so they can take the next steps.</li> </ul>
		5.2.2 Manage Award	<ul style="list-style-type: none"> <li>Program staff is able to create an award so that a funding schedule can be created for an awardee.</li> <li>Finance staff is able to update an existing award so that it is accurate and up to date.</li> <li>Program staff is able to link a new award to an existing award so that the funding/payment schedules can be modified accordingly.</li> <li>Program staff is able to create child awards so that the funding distribution to participants can be captured in the system.</li> <li>Program staff is able to persist award data so that it is accurate and up to date.</li> <li>Program staff is able to record the source(s) of an award's budget so that it can be reported on.</li> </ul>

**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		5.2.3 Manage Funding Schedule	<ul style="list-style-type: none"> <li>• Program staff is able to define a funding schedule so that instalments are scheduled to be paid according to that specific schedule.</li> <li>• Program staff is able to modify a funding schedule for an award to satisfy a business need.</li> <li>• Program staff is able to approve an award's funding schedule so that they can determine if the payment schedules are impacted.</li> <li>• Program staff is able to determine if payment schedules are impacted when modifying a funding schedule so that they can update them.</li> <li>• Finance staff is able to modify funding schedule statuses so that they can control whether instalments can be paid or not.</li> <li>• Finance staff is able to modify funding schedule amounts so that instalments reflect the revised amounts.</li> <li>• Finance staff is able to modify funding schedule dates so that instalments are paid according to the revised schedule.</li> <li>• Finance staff is able to add/remove an instalment for an award to satisfy a business need.</li> </ul>
		5.2.4 Manage Payment Schedule	<ul style="list-style-type: none"> <li>• Program staff is able to define a payment schedule when the default payment schedule is not acceptable so that payments are paid according to that schedule.</li> <li>• Finance staff is able to add/remove a payment for an award to satisfy a business need.</li> </ul>

**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Finance staff is able to modify payment schedule dates so that payments are made according to the revised schedule.</li> <li>• Finance staff is able to modify payment schedule amounts so that payments reflect the revised amounts.</li> <li>• Finance staff is able to modify payment schedule statuses so that they can control whether payments can be completed or not.</li> <li>• Finance staff is able to approve a payment schedule so that payments can be made.</li> <li>• Program staff is able to determine if a default payment schedule is acceptable so that it can be applied.</li> <li>• Program staff is able to modify a payment schedule to satisfy a business need.</li> </ul>
<b>5.3 Notice of Decision Management</b>	Relevant stakeholders such as Applicants and Research Administrators access Notices of Decision in TGMS and respond to them. Agency Administrators and Agency Analysts are able to manage the response to a Notice of Decision by activating an award, rescinding an award, or in the case of an appeal informing the Applicant how to appeal a decision.	5.3.1 Manage Notice of Decision Response	<ul style="list-style-type: none"> <li>• Awardees are able to respond to a Notice of Decision. Agency Administrators are informed when a Notice of Decision response is available.</li> <li>• Program staff is able to confirm that the status of an award is updated when the awardee responds to the Notice of Decision.</li> <li>• Agency Administrators are able to review a Notice of Decision response so that appropriate action can be taken. This includes, but is not limited to: <ul style="list-style-type: none"> <li>○ Activating the award.</li> <li>○ Rescinding the award; or</li> </ul> </li> </ul>

**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>○ Generate appeal instructions so that the appellant is informed of the appeal process.</li> </ul>
		5.3.2 Activate Award	<ul style="list-style-type: none"> <li>• Agency Administrators are able to activate an award.</li> <li>• Agency Administrators are able to update the award if necessary.</li> <li>• Agency Administrators are able to determine if an existing award needs to be terminated before activating the new award. If so, agency administrators are able to request that the existing award be terminated.</li> </ul>
		5.3.3 Rescind Award	<ul style="list-style-type: none"> <li>• Agency Administrators are able to rescind an award so that the unused funds can be managed appropriately.</li> <li>• Agency Administrators are able to notify an awardee that an offer has been rescinded so that they are informed.</li> <li>• Agency Administrators are able to rescind a child award when the parent award has been rescinded so that its status is consistent with the parent award.</li> <li>• Agency Administrators are able to update the relevant budget envelope so that unused funds may be reallocated.</li> <li>• Agency Administrators are able to distribute an award amount amongst the remaining participants so that the funds are re-invested in the project.</li> </ul>



**5.0 Award: This series of capabilities supports the examination of the results of assessment processes to create decisions.**

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"><li>Agency Administrators are able to determine if they can distribute a rescinded award's budget amongst the remaining participants so that the funds remain in the project.</li></ul>

## “Administration” Business Capability



Figure 8: “Administration” Business Capabilities

Table 7: “Administration” Business Capability Descriptions

6.0 Administration: This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.			
Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>6.1 Payment Management</b>	Agency Administrators prepare payments, manage payment schedules, reconcile payment data, accommodate direct deposit requests, and manage payment inquiries.	6.1.1 Manage Payments	<ul style="list-style-type: none"> <li>Agency Administrators are able to prepare a payment batch to schedule and release award payments.</li> <li>Agency Administrators are able to schedule a payment batch on-demand to pay ad hoc awards or Direct Deposit Due Diligence amounts.</li> <li>Agency Administrators are able to modify the status of a selected payment to apply corrective actions.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to verify a payment to ensure the accuracy of the amount and that the payment is not a duplicate.</li> <li>• Agency Administrators are able to export payment data to the Financial Management System to release payments.</li> <li>• Agency Administrators are able to generate a payment consultation request and response to apply corrective actions prior to the payment being released.</li> <li>• Agency Administrators are able to generate a report indicating payments requiring review.</li> <li>• Agency Administrators are able to notify an award recipient about outdated address/financial data to update the information.</li> <li>• Agency Administrators are able to create a hold payment request to prevent the payment from being released.</li> <li>• Agency Administrators are able to be notified to remove the hold on a payment to release the funds.</li> <li>• Agency Administrators are able to generate payment verification lists to verify if corrective action is required.</li> <li>• Agency Administrators are able to rollover next fiscal year Global instalments to schedule them for payment (year-end).</li> <li>• Agency Administrators are able to roll back data when creating a payment batch to stop the transfer of payments.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Administrators are able to request that no instalment transfers can occur on a weekly basis between certain hours to effectively complete the payment of awards.</li> <li>Agency Administrators are able to ensure that future fiscal year instalments cannot be transferred for payment to prevent the creation of hard commitments.</li> <li>Agency Administrators are able to close the current fiscal year to open the new fiscal year.</li> <li>Agency Administrators are able to put all installments on hold so that no further funds are distributed.</li> <li>Agency Administrators are able to modify the status of a payment to apply corrective actions.</li> </ul>
		6.1.2 Reconcile Payment Data	<ul style="list-style-type: none"> <li>Agency Administrators are able to import data from the Award System and the Financial Management System in order to generate a reconciliation report.</li> <li>Agency Administrators are able to generate a payment reconciliation report.</li> <li>Agency Administrators are able to identify and document any discrepancies in the line items on the payment reconciliation report.</li> </ul>
		6.1.3 Manage Direct Deposit Request	<ul style="list-style-type: none"> <li>Applicants are able to submit a direct deposit service request. Agency Administrators are able to confirm the direct deposit service request with the Applicant.</li> <li>Agency Administrators are able to verify if a direct deposit account exists for the Applicant.</li> <li>Agency Administrators are able to set up an Applicant's direct deposit account.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to modify existing banking information for an Applicant.</li> <li>• Agency Administrators are informed when a direct deposit account is ready.</li> <li>• Agency Administrators are able to release a due diligence instalment to a direct deposit account. The relevant Applicant is informed of the release of the due diligence instalment.</li> <li>• Applicants are able to inform the Agency Administrator that the due diligence instalment has been deposited.</li> <li>• Agency Administrators are able to schedule the release of the remainder of the instalment to the direct deposit account.</li> </ul>
		6.1.4 Administer Refund	<ul style="list-style-type: none"> <li>• Agency Administrators are able to investigate a refund to determine if it should be escalated.</li> <li>• Agency Administrators are able to escalate a refund.</li> <li>• Agency Administrators are able to update refund data.</li> </ul>
		6.1.5 Close Fiscal Year	<ul style="list-style-type: none"> <li>• Agency Administrators are able to resolve any outstanding commitments.</li> <li>• Agency Administrators are able to resolve any outstanding amendments</li> <li>• Agency Administrators are able to identify T4A recipients for the fiscal year.</li> <li>• Agency Administrators are able to generate current address/financial data documentation for an award recipient to issue T4A Forms.</li> <li>• Agency Administrators are able to generate T4As.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>6.2 Award Amendment Management</b>	Agency staff manage amendments (e.g., relocate award, defer instalment, terminations, change position, interrupt/reinstate award, etc.) and refunds, and communicate amendment decisions to recipients.	6.2.1 Administer Amendment	<ul style="list-style-type: none"> <li>• Agency Administrators are able to select an amendment for processing.</li> <li>• Agency Administrators are able to cancel the processing of an amendment to satisfy a business need.</li> <li>• Agency Administrators are able to determine if budget approval is required for an amendment.</li> <li>• Agency Administrators are able to prepare a budget approval request (FAA 32/34) for an amendment.</li> <li>• Agency Administrators are able to evaluate the response to a budget approval response and take the appropriate action.</li> <li>• Agency Administrators are able to determine if payments are affected by an amendment. If so, Agency Administrators are able to request that payments be put on hold.</li> <li>• Agency Administrators are able to communicate with the relevant administering organization and/or awardee to request supplemental information about the amendment. Agency Administrators are able to evaluate any received supplemental information.</li> <li>• If required, Agency Administrators are able to request approval for an amendment, evaluate the response and act accordingly.</li> <li>• Agency Administrators are able to generate a Notice of Decision for the amendment and inform all relevant stakeholders of its existence.</li> </ul>
		6.2.2 Complete Amendment	<ul style="list-style-type: none"> <li>• Agency Administrators are able to process award amendments such as:</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>○ Terminate an award.</li> <li>○ Relocate an award.</li> <li>○ Defer an instalment.</li> <li>○ Interrupt an award.</li> <li>○ Reinstate an interrupted award.</li> <li>○ Manage participant leave.</li> <li>○ Change participant position.</li> <li>○ Manage award participants.</li> <li>○ Manage award instalments/payments; and</li> <li>○ Extend an award.</li> </ul>
		6.2.3 Manage Refund	<ul style="list-style-type: none"> <li>● Agency Administrators are able to create a refund request. Agency Administrators are able to determine the fiscal year, tax year and refund amount for a refund request.</li> <li>● Agency Administrators are able to determine the type of refund so that they can return the funds to the correct budget.</li> <li>● Agency Administrators are able to reconcile the account so that they can schedule the refund to the relevant institution's GRF account or GGSF account.</li> <li>● Agency Administrators are able to determine if the refund amount exceeds the global payment value so that a refund request can be created.</li> <li>● Agency Administrators are able to reduce the global payment value by the refund amount so that the funds are returned to the agency.</li> </ul>
<b>6.3 Award Monitoring</b>	Agency staff and Research Administrators, where appropriate, conduct progress and financial reviews, validate ongoing eligibility, manage	6.3.1 Conduct Progress Reviews	<ul style="list-style-type: none"> <li>● Awardees are able to complete and submit their progress reports. Agency Analysts are informed when a progress report has been submitted.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
	missing reports, request and defer installments, and close awards.		<ul style="list-style-type: none"> <li>Agency Analysts are able to perform a merit assessment on an awardee's progress report.</li> </ul>
		6.3.2 Conduct Financial Reviews	<ul style="list-style-type: none"> <li>Awardees are able to complete and submit an SOA for each fiscal year during the life cycle of the award. Agency Analysts are informed when an SOA has been submitted.</li> <li>Agency Analysts are able to review the statement of account of a selected award so that they can reconcile the account.</li> <li>Agency Analysts are able to request an updated statement of account in order to rectify a discrepancy identified during reconciliation.</li> <li>Agency Analysts are able to determine if the statement of account final balance is greater than the deferral threshold so that they can initiate the defer instalment process.</li> <li>Agency Analysts are able to determine if the statement of account is annual or final so that the ending balance is treated accordingly.</li> <li>Agency Analysts are able to determine if a final statement of account has a related grant so that they can transfer the ending balance to the opening balance of the related grant.</li> <li>Agency Analysts are able to request approval for a final SOA ending balance recommendation, evaluate the response and act accordingly.</li> </ul>
		6.3.3 Conduct Ongoing Eligibility Reviews	<ul style="list-style-type: none"> <li>Research Administrators are able to generate a confirmation of ongoing eligibility (COE) report.</li> </ul>



**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Research Administrators are able to conduct a confirmation of ongoing eligibility review for every awardee on the COE report.</li> <li>• Research Administrators are able to request approval for the completed COE review.</li> <li>• Agency Analysts are informed when the COE review has been completed (and approved, if applicable).</li> <li>• Agency Analysts are able to conduct a confirmation of ongoing eligibility assessment to confirm the awardee's ongoing eligibility.</li> <li>• Agency Analysts are able to request additional information from the relevant administering organization and/or the awardee. Agency Analysts are informed when the additional information is available.</li> <li>• Agency Analysts are able to evaluate an awardee's change of position so that they can determine their eligibility.</li> <li>• Agency Analysts are able to inform an administering agency that an awardee's position is not eligible so that the administering organization can take the appropriate actions.</li> <li>• Agency Analysts are able to evaluate the actions taken by an administering agency with regard to an awardee's ineligible position so that the Agency Analyst can take the appropriate action.</li> <li>• Agency Analysts are able to request approval to escalate an ineligibility decision so that they can interrupt or terminate the award. Agency Analysts</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>are able to evaluate the approval response and act accordingly.</p> <ul style="list-style-type: none"> <li>• Agency Analysts are able to request that an internal amendment be created to terminate or interrupt an award.</li> <li>• Agency Analysts are able to update an awardee's profile to reflect any changes identified in the COE process such as a change of position.</li> </ul>
		6.3.4 Manage Missing Reports	<ul style="list-style-type: none"> <li>• Agency Administrators are informed when reporting requirements have not been satisfied so that they can flag the relevant award.</li> <li>• Agency Administrators are informed when reporting requirements have been satisfied so that they can remove a flag from an award.</li> </ul>
		6.3.5 Close an Award	<ul style="list-style-type: none"> <li>• Agency Administrators are able to verify all reporting requirements have been satisfied for a selected award so that they can close the award.</li> <li>• Agency Administrators are able to close an award.</li> <li>• Agency Administrators are informed that an award's reporting requirements have not been satisfied so that they can request that the award be terminated.</li> </ul>
		6.3.6 Conduct Deferred Candidate Review	<ul style="list-style-type: none"> <li>• Agency Administrators are able to generate a report of instalment deferral candidates.</li> <li>• Agency Administrators are able to inform instalment deferral candidates that they have the option to defer their next instalment. Agency Administrators are able to generate relevant documentation to inform each candidate of possible instalment deferral options.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to put an award's next instalment on hold so that no payments are made during the instalment deferral process.</li> <li>• Instalment deferral candidates are able to respond to a defer instalment request. Agency Administrators are notified of a defer instalment response.</li> <li>• Agency Administrators are able to evaluate a defer instalment response so that they can either release an instalment or create a recommendation to defer the instalment.</li> <li>• Agency Administrators are able to request justification from an awardee who is over the maximum deferrals allowed count so that they can evaluate it.</li> </ul>
		6.3.7 Manage Award Flags	<ul style="list-style-type: none"> <li>• Agency Administrators are able to flag an award and/or its participants based on conditions identified during the monitoring of an award.</li> <li>• Agency Administrators are able to determine if an internal amendment is required.</li> <li>• Agency Administrators are able to create an internal amendment so that they can proceed according to Agency policy.</li> <li>• Agency Administrators are able to remove flags from an award and/or its participants once the identified conditions have been resolved.</li> <li>• The relevant awardee is informed of all Agency Administrator decisions</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
<b>6.4 Administering Organization Monitoring</b>	Agency Administrators monitor each administering organization's controls, processes and financial reporting requirements	6.4.1 Review Administering Organization's Controls and Processes	<ul style="list-style-type: none"> <li>• Agency Administrators are able to request the necessary documentation from an administering organization in order to complete the review. This includes, but is not limited to: <ul style="list-style-type: none"> <li>○ Financial Processes.</li> <li>○ Transactions that support the administering organization's documentation; and</li> <li>○ General Ledger Account</li> </ul> </li> <li>• Agency Administrators are able to identify grant test data for an administering organization so that they can determine the scope of the review.</li> <li>• Agency Administrators are able to conduct the analysis, interviews and testing of the administering organization controls and processes so that they can create a monitoring report articulating the actions required by the administering organization.</li> <li>• Agency Administrators are able request an action plan from the administering organization. Agency Administrators are informed when the action plan is available.</li> <li>• Agency Administrators are able to access and evaluate the action plan to determine if is satisfactory or if additional information is required.</li> </ul>
		6.4.2 Conduct Administering Organization Follow-up Review	<ul style="list-style-type: none"> <li>• TGMS is able to identify administering organizations that require a follow-up review.</li> <li>• Agency Administrators are able to generate a follow-up report and share it with the identified administering organization. Agency Administrators</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<p>are informed of the administering organization's response.</p> <ul style="list-style-type: none"> <li>Agency Administrators are able to analyze the administering organization's response and determine the following outcomes: <ul style="list-style-type: none"> <li>Request additional information such as an action plan from the administering organization</li> <li>Close the follow-up review</li> <li>Inform institution eligibility staff of a default event.</li> </ul> </li> <li>Agency Administrators are able to inform all relevant parties of the outcome of a follow-up review.</li> </ul>
		6.4.3 Monitor General Research Fund (GRF) and General Graduate Studies Fund (GGSF) Accounts	<ul style="list-style-type: none"> <li>Research Administrators are able to complete their institution's GRF and GGSF Statement of Accounts (SOA) for each agency for each fiscal year. Agency Administrators are informed when the relevant SOAs are available.</li> <li>Agency Administrators are able to review an administering organization's GRF SOA or GGSF SOA so that they can reconcile them.</li> <li>Agency Administrators are able to inform Research Administrators of the status of the GRF SOA and GGSF SOA reconciliation.</li> </ul>
		6.4.4 Manage General Research Fund (GRF) and General Graduate	<ul style="list-style-type: none"> <li>Research Administrators are able to generate a General Graduate Studies Fund (GGSF) transfer list report so that they aware of the approved transfers.</li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
		Studies Fund (GGSF) Transfer Reviews	<ul style="list-style-type: none"> <li>Research Administrators are able to generate a General Research Fund (GRF) transfer list report so that they are aware of the approved transfers.</li> </ul>
<b>6.5 Allegation Management</b>	Agency staff investigate, track and resolve allegations of misconduct against researchers and institutions. The agencies have a secretariat that monitors investigations into allegations of misconduct against researchers. These investigations may result in sanctions against researchers (e.g., application or peer review suspensions) which are communicated to Agency Administrators and Agency Analysts to ensure they are adhered to.	6.5.1 Manage Researcher Allegation	<ul style="list-style-type: none"> <li>Agency Analysts are able to investigate an allegation of misconduct against a researcher so that they can determine if it has merit.</li> <li>If relevant, Agency Analysts are able to request an interruption of an award so that further funding can be kept on hold while an investigation is ongoing.</li> <li>Agency Analysts are able to request additional information of relevant parties. Agency Analyst are informed when the additional information is available.</li> <li>Agency Analysts are able to request approval for their decision from the appropriate approval authorities. Agency Analysts are able to evaluate the response and act accordingly.</li> <li>If relevant, Agency Analysts are able to request a termination of an award so that the award is cancelled, and funds are recovered if necessary.</li> <li>Agency Analysts are able to request that an administering organization becomes ineligible so that no funding can be administered by that organization.</li> <li>Agency Analysts are able to request that: <ul style="list-style-type: none"> <li>An individual be declared ineligible to participate in peer review so that the individual can no longer review applications;</li> </ul> </li> </ul>

**6.0 Administration:** This series of capabilities supports the monitoring of awards and administering organizations, the processing of amendments, and the administration of funds and the investigation of allegations against individuals and/or institutions.

Level 2 Business Capability	Level 2 Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>○ An individual be declared ineligible to hold funds so that the individual cannot hold tri-agency funding; and</li> <li>○ An individual be declared ineligible to apply for funds so that the individual cannot be granted funding.</li> <li>• Agency Analysts are able to communicate the investigation's outcome to all relevant parties.</li> </ul>
		6.5.2 Manage Administering Organization Allegation	<ul style="list-style-type: none"> <li>• Agency Analysts are able to review an allegation against an administering organization so that they can determine if it has merit.</li> <li>• Agency Analysts are able to request additional information of relevant parties. Agency Analyst are informed when the additional information is available.</li> <li>• Agency Analysts are able to request approval for their decision from the appropriate approval authorities. Agency Analysts are able to evaluate the response and act accordingly.</li> <li>• Agency Analysts are able to request that an administering organization becomes ineligible so that no funding can be administered by that organization.</li> <li>• Agency Analysts are able to generate a report of award holders at an ineligible institution so that they can generate a hold payment request for each of them.</li> <li>• Agency Analysts are able to communicate the investigation's outcome to all relevant parties.</li> </ul>

## “Audit and Evaluation” Business Capability

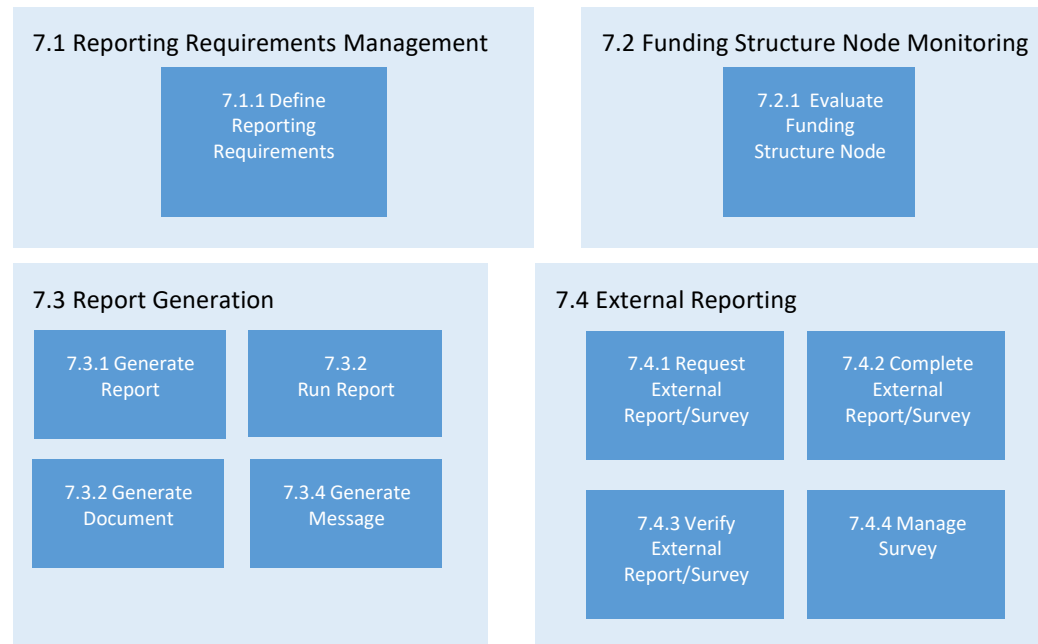


Figure 9: “Audit and Evaluation” Business Capabilities

Table 8: “Audit and Evaluation” Business Capability Descriptions

7.0 Audit and Evaluation: All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>7.1 Reporting Requirements Management</b>	Agency Analysts define the reporting requirements for any level of the funding structure.	7.1.1 Define Reporting Requirements	<ul style="list-style-type: none"> <li>Agency Analysts are able to create and update reporting requirements.</li> </ul>



**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Analysts are able to identify reporting requirement sources. This includes, but is not limited to: <ul style="list-style-type: none"> <li>External reports.</li> <li>Awards.</li> <li>Assessment processes.</li> <li>Applications; and/or</li> <li>Bio-profiles.</li> </ul> </li> <li>Agency Analysts are able to request approval for new and/or updated reporting requirements. Agency Analysts are able to act according based upon an approval response.</li> <li>Agency Analysts are able to associate reporting requirements to a funding structure node or group.</li> </ul>
<b>7.2 Funding Structure Node Monitoring</b>	Agency Analysts generate reports to evaluate the effectiveness of the relevant funding structure node based on key performance indicators (KPIs) and/or application data or for the purpose of proactive disclosure.	7.2.1 Evaluate Funding Structure Node	<ul style="list-style-type: none"> <li>Agency Analysts are able to generate and run reports to evaluate the effectiveness of the relevant funding structure node based on established key performance indicators (KPIs), and/or application data.</li> </ul>
<b>7.3 Report Generation</b>	All TGMS users can create reports, documents or messages for a variety of functions and audiences.	7.3.1 Generate Report	<ul style="list-style-type: none"> <li>TGMS users are able to define a report's data requirements.</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• TGMS users are able to define parameters for a report.</li> <li>• TGMS users are able to select a report template from a repository so that they can create a new report or run the existing report.</li> <li>• TGMS users are able to define the report's presentation format so that the data retrieved is displayed in the appropriate format.</li> <li>• TGMS users are able to save a report template to a repository so that it can be reused.</li> <li>• TGMS users are able to request approval for a new or updated report. TGMS users are able to evaluate the response and act accordingly.</li> </ul>
		7.3.2 Run Report	<ul style="list-style-type: none"> <li>• TGMS users are able to run a report. All users are able to enter report parameters.</li> <li>• TGMS users are able to save report results in a variety of file formats so that it facilitates their distribution.</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are able to identify the communication requirements for a report.</li> <li>• Agency Administrators are able to generate a Communication Request to distribute the report. Agency Administrators are informed of the status of their Communication Request.</li> </ul>
		7.3.3 Generate Document	<ul style="list-style-type: none"> <li>• Agency Administrators are able to select a document template from a repository so that they can create a new document.</li> <li>• Agency Administrators are able to select an existing report for use in a document so that data needed is available.</li> <li>• Agency Administrators are able to modify an existing document in response to a business need.</li> <li>• Agency Administrators are able to save a document so that it is preserved for future reference.</li> <li>• Agency Analysts are able to request approval for a new or updated document. Agency Analysts are able to evaluate the response and act accordingly.</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>Agency Administrators are able to identify the communication requirements for a document.</li> <li>Agency Administrators are able to generate a Communication Request to distribute the document. Agency Administrators are informed of the status of their Communication Request.</li> </ul>
		7.3.4 Generate Message	<ul style="list-style-type: none"> <li>Agency Administrators are able to create a new message or modify an existing message.</li> <li>Agency Administrators are able to save a generated message to a repository for future reference.</li> <li>Agency Analysts are able to request approval for a new or updated message. Agency Analysts are able to evaluate the response and act accordingly.</li> </ul>
<b>7.4 External Reporting</b>	External reporting allows Agency Analysts and Agency Administrators to collect data from stakeholders using external reports and surveys. Staff issues an external report or survey request to one or more stakeholders. Stakeholders complete the external report/survey and submit them to the agency. The contents of the external report/survey are verified and the appropriate action is taken.	7.4.1 Request External Report/Survey	<ul style="list-style-type: none"> <li>Agency Administrators are able to request an external report or survey from a TGMS user. Agency Administrators are able to specify a time frame for the TGMS user to respond to an external report request.</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Administrators are informed when a TGMS user has successfully submitted an external report or survey.</li> <li>• Agency Administrators are able to send a reminder message to TGMS users who have not responded or who have not submitted external report within the specified time frame.</li> <li>• TGMS users receive an external report request reminder message.</li> </ul>
		7.4.2 Complete External Report/Survey	<ul style="list-style-type: none"> <li>• TGMS users are able to access an external report or survey.</li> <li>• TGMS users are able to enter data so that they can complete the external report or survey.</li> <li>• TGMS users are able to accommodate any supporting documentation requirements associated with an external report or survey.</li> <li>• TGMS users are able to verify an external report or survey before submission and act accordingly.</li> <li>• TGMS users are able to save an in-progress external report or survey</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<p>in order to complete it at a later date.</p> <ul style="list-style-type: none"> <li>• TGMS users are able to review the applicable terms and conditions before responding to an external report or survey request.</li> <li>• TGMS users are able to accept the terms and conditions so that they will be able to submit their external report or survey.</li> <li>• TGMS users are able to submit a completed external report or survey. TGMS users are informed when an external report or survey has been received by the relevant agency.</li> </ul>
		7.4.3 Verify External Report/Survey	<ul style="list-style-type: none"> <li>• Agency Administrators are informed when an external report or survey is available.</li> <li>• Agency Administrators are able to verify that an external report is complete and satisfies the TGMS user's reporting requirements. Agency Administrators are able to inform the relevant TGMS user about the status of the reporting requirements.</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>• Agency Analysts are able to verify Form data (F535/F540) received from the award recipient so that they can reissue a payment.</li> <li>• Agency Administrators are able to notify a TGMS user that their external report is incomplete so that it can be corrected.</li> <li>• Agency Administrators are able to persist the results of a completed survey so that they can be analyzed.</li> </ul>
		7.4.4 Manage Survey	<ul style="list-style-type: none"> <li>• Agency Administrators are able to run a report to identify survey recipients so that they know who the survey's target audience is.</li> <li>• Agency Administrators are able to determine if a survey exists that satisfies their business needs.</li> <li>• Agency Administrators are able to select an existing survey and update it, if necessary.</li> <li>• Agency Administrators are able to create a new survey.</li> <li>• Agency Administrators are able to request approval for a new or updated survey. Agency Administrators are able to</li> </ul>

**7.0 Audit and Evaluation:** All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			evaluate the approval response and act accordingly.



## “Analytics” Business Capability

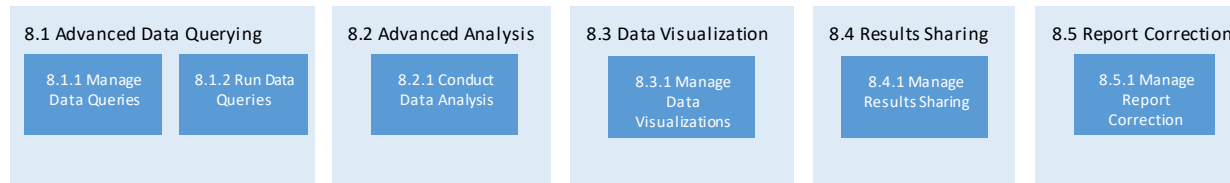


Figure 10: “Analytics” Business Capabilities

Table 9: “Analytics” Business Capability Descriptions

8.0 Analytics: This series of capabilities allows stakeholder to conduct advanced analyses of TGMS data to inform decision-making.			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>8.1 Advanced Data Querying</b>	All TGMS users can run complex queries on large datasets quickly and in real-time using multiple fields. Roles determine the extent of their ability to query.	8.1.1 Manage Data Queries	<ul style="list-style-type: none"> <li>All TGMS users are able to create, modify, and save queries on large datasets. The data that TGMS users have access to is determined by their role.</li> </ul>
		8.1.2 Run Data Queries	<ul style="list-style-type: none"> <li>All TGMS users are able to run queries on large datasets. The data that TGMS users have access to is determined by their role.</li> </ul>
<b>8.2 Advanced Analysis</b>	Agency Administrators and Agency Analysts may conduct data analyses, whether using inferential statistics, by modeling or machine-driven techniques or the ability to connect to software (e.g., R or Python) to do so.	8.2.1 Conduct Data Analysis	<ul style="list-style-type: none"> <li>Agency Administrators and Agency Analysts are able to conduct data analyses, whether using inferential statistics, by modeling or machine-driven techniques or the ability to connect to software (e.g., R or Python) to do so.</li> </ul>

**8.0 Analytics: This series of capabilities allows stakeholder to conduct advanced analyses of TGMS data to inform decision-making.**

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>8.3 Data Visualization</b>	All TGMS users create, modify and customize data visual objects / advanced graphics (e.g., graphs, maps, animations, etc.) based on advanced queries and data analyses.	8.3.1 Manage Data Visualizations	<ul style="list-style-type: none"> <li>All TGMS users are able to create, modify and customize data visual objects / advanced graphics (e.g., graphs, maps, animations, etc.) based on advanced queries and data analyses.</li> </ul>
<b>8.4 Results Sharing</b>	All TGMS users are able to share the results of their analysis with internal and external stakeholders by whichever means necessary. All TGMS users can explore and conduct analysis of data such as funded research and funding decisions. However, it is imperative that GoC data security and privacy policies are adhered to when sharing results.	8.4.1 Manage Results Sharing	<ul style="list-style-type: none"> <li>All TGMS users can explore and conduct analysis of data such as funded research and funding decisions.</li> <li>All TGMS users are able to share the results of their analysis with internal and external stakeholders by whichever means necessary in accordance with GoC data security and privacy policies.</li> </ul>
<b>8.5 Report Correction</b>	Agency Administrators and Agency Analysts apply rules-based corrections to data/reports for internal staff without modifying underlying data.	8.5.1 Manage Report Correction	<ul style="list-style-type: none"> <li>Agency Administrators and Agency Analysts are able to apply rules-based corrections to data/reports for presentation purposes without modifying underlying data.</li> </ul>

## “Stakeholder Management” Business Capability

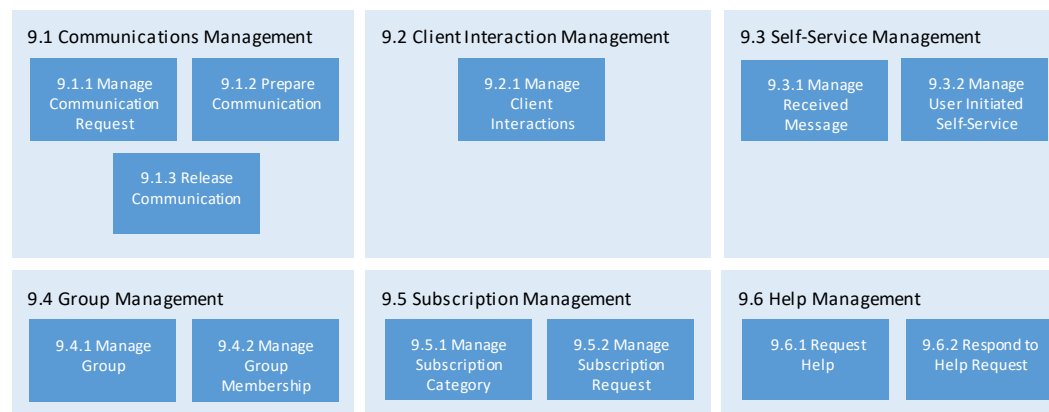


Figure 11: “Stakeholder Management” Business Capabilities

Table 10: “Stakeholder Management” Business Capability Descriptions

9.0 Stakeholder Management: This series of capabilities support information sharing and interactions inside and outside of the agencies			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>9.1 Communications Management</b>	Agency staff process requests from TGMS stakeholders to publish communications (e.g., ministerial announcements, program literature, reports, documents, funding opportunity closings etc. Agency staff manage the content, audience and release information for each Communication Request. Agency staff inform relevant stakeholders about the release of <b>their</b> Communication Request	9.1.1 Manage Communication Request	<ul style="list-style-type: none"> <li>TGMS users are able to create a Communication Request. Agency Administrators are informed when a Communication Request has been created.</li> <li>Agency Administrators are able to access a Communication Request to review its specifications.</li> <li>Agency Administrators are able to request approval for a Communication Response so that it can be released.</li> </ul>

9.0 Stakeholder Management: This series of capabilities support information sharing and interactions inside and outside of the agencies			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<p>Agency Analysts are able to evaluate the response and act accordingly.</p> <ul style="list-style-type: none"> <li>• TGMS users are able to track the status of their Communication Request.</li> </ul>
		9.1.2 Prepare Communication	<ul style="list-style-type: none"> <li>• Agency Administrators are able to assemble the materials required to complete a Communication Request.</li> <li>• Agency Administrators are able to manage the target audience of a Communication Request.</li> <li>• Agency Administrators are able to schedule a release date for a Communication Request so that the communication can be released at a prescribed time.</li> </ul>
		9.1.3 Release Communication	<ul style="list-style-type: none"> <li>• Agency Administrators are able to evaluate the communication to ensure all the requirements for release have been met.</li> <li>• Agency Administrators are able to release a communication. The target audience is informed of its release.</li> </ul>
<b>9.2 Client Interaction Management</b>	Agency Administrators are able to record and track details of all the various types of internal and external client interactions, and access them later. Agency administrators are able to triage and track support tickets.	9.2.1 Manage Client Interactions	<ul style="list-style-type: none"> <li>• Agency Administrators are able to record details of all the various types of internal and external client interactions</li> <li>• Agency Administrators are able to access internal and external client interactions.</li> <li>• Agency administrators are able to triage and track support tickets.</li> </ul>

9.0 Stakeholder Management: This series of capabilities support information sharing and interactions inside and outside of the agencies			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>9.3 Self-Service Management</b>	All TGMS users are able to interact with the various components of TGMS such as responding to received messages or performing available tasks (e.g., changing their personal information, changing organization information, creating a report for their personal use, etc.). The level of interaction is derived from the user's role.	9.3.1 Manage Received Messages	<ul style="list-style-type: none"> <li>• TGMS users are able to access and respond appropriately to all received messages including, but not limited to: <ul style="list-style-type: none"> <li>○ Requests for additional information</li> <li>○ Group member notifications</li> <li>○ Justification budget requests</li> <li>○ Position change requests; or</li> <li>○ Reissue payment notifications.</li> </ul> </li> </ul>
		9.3.2 Manage User Initiated Self-Service	<ul style="list-style-type: none"> <li>• TGMS users are able to perform a number of different tasks based upon their role. This includes, but is not limited to: <ul style="list-style-type: none"> <li>○ Submit a payment inquiry</li> <li>○ Submit a group request</li> <li>○ Inquire about the status of their applications</li> <li>○ Create a report</li> <li>○ Create a reminder</li> <li>○ Withdraw consent</li> <li>○ Configure their user experience</li> <li>○ Manage their subscription memberships</li> <li>○ Update their bio-profile</li> <li>○ Make a direct deposit request; or</li> <li>○ Submit a subscription category request.</li> </ul> </li> </ul>
<b>9.4 Group Management</b>	Research Administrators, Agency Administrators and Agency Analysts create and modify groups of	9.4.1 Manage Group	<ul style="list-style-type: none"> <li>• TGMS users are able to create a Manage Group request. TGMS users are informed</li> </ul>

9.0 Stakeholder Management: This series of capabilities support information sharing and interactions inside and outside of the agencies			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
	stakeholders for a myriad of reasons such as creating a mailing list.		<p>of the status of their Manage Group request.</p> <ul style="list-style-type: none"> <li>• Agency Administrators are able to create a new group.</li> <li>• Agency Administrators are able to modify an existing group.</li> <li>• Agency Administrators are able to deactivate a group.</li> </ul>
		9.4.2 Manage Group Membership	<ul style="list-style-type: none"> <li>• Agency Administrators are informed of a request to change the membership of an existing group.</li> <li>• Agency Administrators are able to modify the membership of a group in response to a request. This includes adding people to a group, removing people from a group, adding one group to another group, or removing a group from another group.</li> <li>• Agency Administrators are able to inform the requestor of the status of the request.</li> </ul>
<b>9.5 Subscription Management</b>	Agency Administrators are able to create, modify or deactivate subscription categories. All TGMS users have the ability to subscribe to a subscription category or unsubscribe from a subscription category.	9.5.1 Manage Subscription Category	<ul style="list-style-type: none"> <li>• Agency Administrators are able to create a new subscription category.</li> <li>• Agency Administrators are able to identify potential subscribers.</li> <li>• Agency Administrators are able to inform potential subscribers about the existence of a new subscription category.</li> <li>• Agency Administrators are able to modify an existing subscription category. Existing</li> </ul>

**9.0 Stakeholder Management: This series of capabilities support information sharing and interactions inside and outside of the agencies**

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<p>subscribers are informed of the change to the subscription category.</p> <ul style="list-style-type: none"> <li>• Agency Administrators are able to deactivate a subscription category. Existing subscribers are informed of the deactivation of the subscription category.</li> <li>• Agency Administrators are able to inform the requestor of the status of a subscription category request.</li> </ul>
		9.5.2 Manage Subscription Request	<ul style="list-style-type: none"> <li>• Potential subscribers are able to subscribe to a subscription category.</li> <li>• Subscribers are able to unsubscribe from a subscription category</li> </ul>
<b>9.6 Help Management</b>	<p>All TGMS users are provided with assistance/support tailored to their roles and the tasks that they are attempting to complete and provide follow-ups as necessary. Examples of such support includes Reviewers having a chat option with Agency Administrators to discuss technical issues (e.g., password related), or Applicants seeking application support from the Agency Administrators.</p> <p>All TGMS users will have access to self-help features such as, but not limited to, password resets, software downloads, status updates and notifications.</p>	9.6.1 Request Help	<ul style="list-style-type: none"> <li>• All TGMS Users are able to request help so that they may proceed with their current task. <ul style="list-style-type: none"> <li>○ Applicants are able to obtain instant on-line help, so that they can obtain answers to questions regarding application requirements.</li> </ul> </li> <li>• TGMS Users are able to access FAQ documentation so that they know how to proceed.</li> </ul>
		9.6.2 Respond to Help Request	<ul style="list-style-type: none"> <li>• Agency Administrators area able to provide help to TGMS Users in a variety of formats such as, but not limited to: <ul style="list-style-type: none"> <li>○ Online Chats</li> </ul> </li> </ul>

**9.0 Stakeholder Management: This series of capabilities support information sharing and interactions inside and outside of the agencies**

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
			<ul style="list-style-type: none"> <li>○ Phone Support</li> <li>○ FAQ Documentation</li> <li>○ Providing Contact Information</li> <li>○ Multimedia Support</li> <li>○ Glossary of Terms.</li> <li>● Agency Administrators area able to provide tailored help content so that the TGMS User's questions/needs are satisfied/met.</li> <li>● Agency Administrators area able to determine if follow-up is required to complete a TGMS User's help request.</li> <li>● Agency Administrators area able to request that a ticket be created for an unresolved issue so that the issue is trackable and reportable. The TGMS user is informed about the creation of the ticket.</li> </ul>



## “Continuous Learning” Business Capability

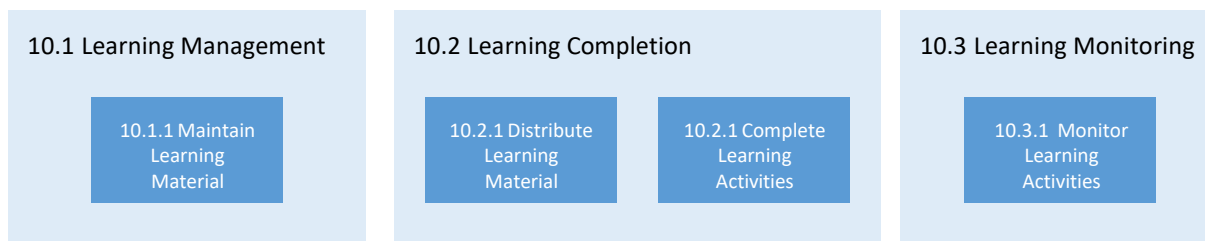


Figure 12: “Continuous Learning” Business Capabilities

Table 11: “Continuous Learning” Business Capability Descriptions

10.0 Continuous Learning: This series of capabilities supports the creation, consumption and monitoring of learning materials for stakeholders (staff, applicants, reviewers, advisory committee members and others).			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>10.1 Learning Management</b>	Agency Administrators create and modify learning materials for a specific, or multiple stakeholder roles (e.g., Applicants, Reviewers, advisory committee members, student liaison officers, Research Administrators, etc.). This also includes a user guide for TGMS.	10.1.1 Maintain Learning Material	<ul style="list-style-type: none"> <li>Agency Administrators are able to create and modify learning materials tailored to specific TGMS user roles such as, but not limited to:               <ul style="list-style-type: none"> <li>Applicants.</li> <li>Reviewers.</li> <li>Advisory Committee Members.</li> <li>Student Liaison Officers; or</li> <li>Research Administrators.</li> </ul> </li> </ul>
<b>10.2 Learning Completion</b>	Agency Administrators distribute learning materials to relevant stakeholders. Relevant stakeholders complete learning activities relating to one or multiple roles in which they are engaging with the agencies.	10.2.1 Distribute Learning Material	<ul style="list-style-type: none"> <li>Agency Administrators are able to distribute learning materials to relevant TGMS users.</li> <li>TGMS is able to update a TGMS user’s bio-profile with relevant learning activity data.</li> </ul>

**10.0 Continuous Learning:** This series of capabilities supports the creation, consumption and monitoring of learning materials for stakeholders (staff, applicants, reviewers, advisory committee members and others).

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
		10.2.2 Complete Learning Activities	<ul style="list-style-type: none"> <li>• TGMS users are able to complete learning activities relating to one or multiple roles in which they are engaging with the agencies.</li> <li>• TGMS is able to update a TGMS user's bio-profile with relevant learning activity data.</li> </ul>
<b>10.3 Learning Monitoring</b>	Applicants, Agency Administrator, Agency Analysts, or other stakeholders monitor the completion of their associated learning activities.	10.3.1 Monitor Learning Activities	<ul style="list-style-type: none"> <li>• TGMS users are able to monitor the completion of their associated learning activities.</li> </ul>

## “Program Budget Management” Business Capability

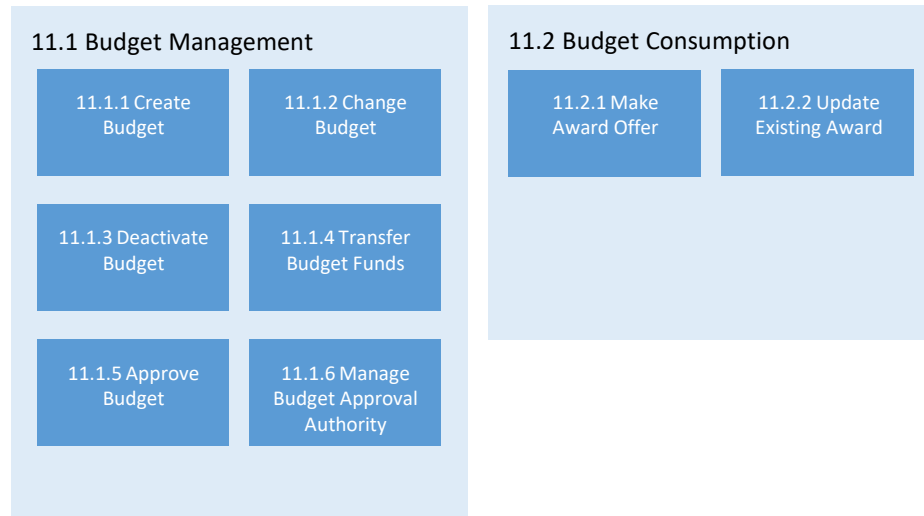


Figure 13: “Program Budget Management” Business Capabilities

Table 12: “Program Budget” Business Capability Descriptions

11.0 Program Budget Management: This series of capabilities supports the management, consumption and allocations of budgets across the Agencies’ funding structures.			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>11.1 Budget Management</b>	Agency Administrators and Agency Analysts configure budgets according to the funding structure (includes funding pools and funding envelopes), make changes to existing budgets, make transfers from one budget to another and maintain budget approval authorities (including external funds administered through the agencies). In addition, internal staff link and modify additional budgets (e.g., partner contributions) associated with funding opportunities/cycles.	11.1.1 Create Budget	<ul style="list-style-type: none"> <li>Agency Administrators are able to create a budget for a funding structure node or group so that staff can operate within their budget allocations.</li> <li>Agency Administrators are able to record each funding partner organization’s contribution to a funding structure node or group budget.</li> </ul>

**11.0 Program Budget Management:** This series of capabilities supports the management, consumption and allocations of budgets across the Agencies' funding structures.

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
		11.1.2 Change Budget	<ul style="list-style-type: none"> <li>Agency Administrators are able to change a budget so that it is accurate and up to date</li> </ul>
		11.1.3 Deactivate Budget	<ul style="list-style-type: none"> <li>Agency Administrators are able to deactivate a budget so that any remaining funds cannot be consumed.</li> </ul>
		11.1.4 Transfer Budget Funds	<ul style="list-style-type: none"> <li>Agency Administrators are able to transfer funds from one budget to another so that the funds can be consumed.</li> </ul>
		11.1.5 Approve Budget	<ul style="list-style-type: none"> <li>Agency Administrators are able to request approval for budget definitions, budget changes, budget deactivations or budget transfers. Agency Analysts are able to evaluate the response and act accordingly.</li> </ul>
		11.1.6 Manage Budget Approval Authority	<ul style="list-style-type: none"> <li>Agency Administrators are able to associate someone to a budget as an approval authority so that the budget's approval authority is up to date.</li> <li>Agency Administrators are able to disassociate someone from a budget as an approval authority so that the budget's approval authority is up to date.</li> </ul>
<b>11.2 Budget Consumption</b>	Agency Administrators distribute unused budgets to create new awards, change recommendations or update existing awards. Agency Analysts must have access to the same information and view as Agency	11.2.1 Make Award Offer	<ul style="list-style-type: none"> <li>Agency Administrators are informed when available funds remain in a competition's budget.</li> <li>Agency Administrators are able to generate a report that identifies:</li> </ul>

**11.0 Program Budget Management: This series of capabilities supports the management, consumption and allocations of budgets across the Agencies' funding structures.**

Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
	Administrators in order to track the work being done by the Administrators.		<ul style="list-style-type: none"> <li>○ Candidates eligible for promotion; or</li> <li>○ Applications recommended but not funded.</li> <li>● Agency Administrators are able to review a selected candidate/application to determine if a merit assessment is required or if the candidate/application can be recommended for an award.</li> <li>● Agency Administrators are able to decrease the available funds for each selected candidate or application so that the available funds are up-to-date.</li> </ul>
		11.2.2 Update Existing Award	<ul style="list-style-type: none"> <li>● Agency Administrators are informed when available funds remain in a competition's budget.</li> <li>● Agency Administrators are able to generate a report of awards eligible to have their budgets increased.</li> <li>● Agency Administrators are able to request that an internal amendment be created to add instalments to an award.</li> <li>● Agency Administrators are able to decrease the available funds for each budget so that the available funds are up-to-date.</li> </ul>

## “Common Services” Business Capabilities

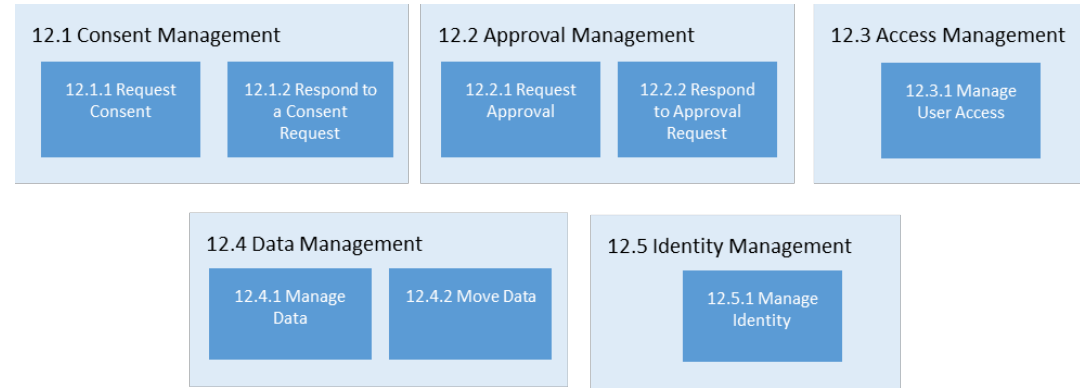


Figure 14: “Common Services” Business Capabilities

Table 13: “Common Services” Business Capability Descriptions

12.0 Common Processes: This series of capabilities consist of supporting processes that contribute to all of the other capabilities			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
<b>12.1 Consent Management</b>	All TGMS users are able to view, accept and update Terms and Conditions (Ts & Cs) relevant for each role.	12.1.1 Request Consent	<ul style="list-style-type: none"> <li>TGMS is able to request the appropriate consent of all new TGMS users based upon their role.</li> <li>TGMS is able to determine if an existing user’s consent is up-to-date and act accordingly.</li> </ul>
		12.1.2 Respond to Consent Request	<ul style="list-style-type: none"> <li>TGMS users are able to respond to a consent request.</li> <li>TGMS is able to record the user’s response and act accordingly.</li> </ul>
<b>12.2 Approval Management</b>	TGMS users are able to request approval for specific tasks (e.g., transfer a budget) within TGMS. When approval is requested, the approval	12.2.1 Request Approval	<ul style="list-style-type: none"> <li>Internal TGMS users are able to request approval for a variety of tasks including, but not limited to:</li> </ul>

12.0 Common Processes: This series of capabilities consist of supporting processes that contribute to all of the other capabilities			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
	authorities (role related or person related) for the task are identified and approval requests are distributed. Responses are collected and a result is determined. The result is recorded, shared with the initial user and, based on the result, the appropriate actions are taken.		<ul style="list-style-type: none"> <li>○ Defining a funding opportunity.</li> <li>○ Defining program literature.</li> <li>○ Transferring a budget; or</li> <li>○ Archiving data.</li> <li>• Internal TGMS users are able to evaluate an approval response in order to take the appropriate action.</li> </ul>
		12.2.2 Respond to Approval Request	<ul style="list-style-type: none"> <li>• Internal TGMS users are able to consult the designated approval authorities for the relevant task.</li> <li>• Internal TGMS users are able to evaluate the approval authority responses and make a decision.</li> <li>• Internal TGMS users are able to communicate the decision to the requestor.</li> </ul>
<b>12.3 Access Management</b>	<p>New TGMS users are able to create a user account that will provide them access to TGMS, based on their role.</p> <p>TGMS users have the ability to manage their own credentials.</p> <p>Internal TGMS users (Agency Administrators or Agency Analysts) are able to create user accounts and assign them to new TGMS users.</p> <p>All TGMS users' credentials are validated before they access TGMS. What the user has access to is determined by the user's role; access for agency</p>	12.3.1 Manage User Access	<ul style="list-style-type: none"> <li>• TGMS users are able to create a user account that will provide them access to TGMS.</li> <li>• TGMS users have the ability to manage their own credentials.</li> <li>• Agency Administrators are able to create user accounts and assign them to new TGMS users.</li> <li>• TGMS is able to validate all TGMS users' credentials before allowing them to TGMS.</li> </ul>

12.0 Common Processes: This series of capabilities consist of supporting processes that contribute to all of the other capabilities			
Level 2 Business Capability	Definition	Level 3 Business Capability	Level 3 Definition
	staff would be different from access for an applicant.		<ul style="list-style-type: none"> <li>TGMS is able to control what the user has access to; based upon their role. Access for agency staff would be different from access for an applicant.</li> </ul>
<b>12.4 Data Management</b>	Agency Administrators are to maintain data regarding people, organizations, lists, templates, reminders and roles. Agency Administrators are able to import, export and archive data.	12.4.1 Manage Data	<ul style="list-style-type: none"> <li>Agency Administrators are to maintain data regarding people, organizations, lists, templates, reminders, and roles.</li> </ul>
		12.4.2 Move Data	<ul style="list-style-type: none"> <li>Agency Administrators are able to import, export and archive data.</li> </ul>
<b>12.5 Identity Management</b>	Agency Administrators have the ability to confirm a user's identity according to the GoC Directive on Identity Management.	12.5.1 Manage Identity	<ul style="list-style-type: none"> <li>Agency Administrators are able to confirm a TGMS user's identity according to the GoC Directive on Identity Management.</li> </ul>



## Appendices

### Terms and Definitions

The purpose of this section of the document is to define the terms that appear throughout the document.

**Note: These definitions have not been distributed for review at this point in time (2020/06/12).**

Term	Definition
Amendment	<p>An Amendment is a post-administration request to alter the terms of an award on a temporary or permanent basis. Examples of an amendment include, but are not limited to:</p> <ul style="list-style-type: none"><li>• Parental Leave;</li><li>• Sabbatical Leave;</li><li>• Leave for Relevant Work Experience;</li><li>• Change of Institution</li><li>• Change of Place of Tenure for Training Awards;</li><li>• Relocation (Grantee); or</li><li>• Termination of Grant.</li></ul>
Appeal	<p>An Appeal is a request by an applicant seeking reconsideration of a funding decision where evidence suggests that a procedural error occurred during the review of the application.</p>
Application	<p>An Application includes, but is not limited to:</p> <ul style="list-style-type: none"><li>• An application for funding;</li><li>• An amendment;</li><li>• An appeal; or</li><li>• An application for institutional eligibility.</li></ul>
Application for Funding	<p>An Application for Funding is a formal request to acquire research funds from an agency by an applicant and may include other participants performing a specific role in the application such as co-applicant, collaborator or partner organization.</p>

<b>Term</b>	<b>Definition</b>
Application for Institution Eligibility	<p>Process by which Canadian institutions that wish to administer grants and awards submit supporting documentation to show that meet the requirements.</p> <p><a href="http://www.science.gc.ca/eic/site/063.nsf/eng/h_3D5FA603.html?OpenDocument">http://www.science.gc.ca/eic/site/063.nsf/eng/h_3D5FA603.html?OpenDocument</a></p>
Application Package	An Application Package consists of the collection of all materials, including forms (structured data) and supporting documentation (unstructured data), submitted by an applicant and their participants in support of their application.
Application Partner Organization	An Application Partner Organization is an organization that is participating in an application. An Application Partner Organization may provide funding and/or in-kind contributions to the application. Applicants are responsible for managing all aspects of the collaboration with an Application Partner Organization.
Communication Request	<p>A Communication Request is a request to release information to the public or a targeted audience. The information included in a Communication Request includes, but is not limited to:</p> <ul style="list-style-type: none"> <li>• Program/Funding Opportunity Information (e.g., launch dates, sun-setting dates, etc.);</li> <li>• Ministerial Announcement;</li> <li>• Documents; or</li> <li>• Reports.</li> </ul>
Competition	A Competition is a process by which applicants compete for a given amount of funds in support of research and / or research training. Applications to a competition are merit-reviewed according to evaluation criteria and ranked. Applicants are then funded based on their ranking; funds are allocated until all funds are spent. A Competition has an application deadline.

Term	Definition
Decision Notice	A Decision Notice is any document sent to applicants and relevant stakeholders with the decision made on an application (see Application). This may include, but is not limited to, notice of decision, decision letter, offer of award, etc...
Final Outcome	A Final Outcome is the highest-level business outcome that can reasonably be attributed to the initiative, and is the consequence of one or more intermediate outcomes having been achieved. Final Outcomes represent the <i>raison d'être</i> of the TGMS initiative. They are long-term outcomes that depict the expected change target
Funding Cycle	FUNDING CYCLE (FC) refers to a specific period of time wherein the process of applying for a particular FUNDING OPPORTUNITY, its ASSESSMENT and AWARD is conducted. A FUNDING CYCLE is identified as part of a FUNDING OPPORTUNITY and is associated to a BUDGET. A FUNDING CYCLE has a Start Date and End Date, and is associated with a Competition. Upon receipt of a Notice of Award by the Applicant, the FUNDING CYCLE begins. There may be more than one FUNDING CYCLE in a Fiscal Year depending on the FUNDING OPPORTUNITY (e.g., a Quarterly Competition). A funding cycle may span more than one fiscal year.
Funding Opportunity	A FUNDING OPPORTUNITY (FO) is a means for supporting research and research training. The Agency is able to specify the details of a FUNDING OPPORTUNITY (e.g., Name, Objective, State Date, End Date, etc.), Status (e.g., Draft, Active, Closed, etc.), Program Literature and more. Each FUNDING OPPORTUNITY has specific ELIBILITY CRITERION that must be fulfilled by each named PERSON on an APPLICATION, their ORGANZATION, as well as the PROGRAM being applied to.

Term	Definition
Funding Partner Organization	A Funding Partner Organization provides financial support to a funding opportunity. These partners will support application(s) relevant to their mission, mandate, or priority research areas. Applicants consent to share information and funding decisions with these partners when applying. The agencies are responsible for managing all aspects of the collaboration with Funding Partner Organization.
Funding Schedule	A schedule of annual (fiscal year) instalments for an award.
Funding Structure	A Funding Structure (FS) is a hierarchical entity that represents the agencies' Departmental Results Framework (DRF) for a fiscal year.
Funding Structure Node	A Funding Structure Node represents an element on any layer of a Funding Structure such as a program, sub-program, funding opportunity etc.
Institutional Allocations	Institutional Allocations refer to the number of awards that an institution may administer for a particular funding opportunity, on behalf of each respective agency. For example, <a href="#">the Undergraduate Student Research Awards (USRA) funding opportunity utilizes institutional allocations.</a>
Key Performance Indicator (KPI)	A Key Performance Indicator (KPI) is a type of performance measurement. KPIs evaluate the success of a program, a funding opportunity, a funding cycle or an award. An example of a KPI for a funding opportunity could be the number of women who received funding.
Letter of Intent	<p>A Letter of Intent is an application submitted by applicants that conveys their intention to submit a full application for funding. Applicants whose Letter of Intent are assessed successfully are invited to submit a full application.</p> <p>This may be referred to as a Notice of Intent.</p>
Payment Schedule	A schedule of payments to be made in a fiscal year, the sum of which equals the instalment for that fiscal year.

Term	Definition
Registration	A Registration is a short application submitted by applicants that conveys their intention to submit a full application for funding. Registrations undergo a cursory assessment process to determine the eligibility of the applicant and subject matter and to assist in workload planning.
TGMS Users	TGMS users consists of the internal users, agency administrators and agency analysts, and the external users, applicants, reviewers and research administrators.
Tombstone Information	Tombstone Information consists of personal identifying data that does not change during a person's lifetime such as name and date of birth.
Transfer Period	The Transfer Period is a preliminary stage in the assessment of some funding opportunities where applications are organized by subject matter and assigned to relevant peer review committees. However, due to uncertainty regarding the relevancy of the subject matter, it may be necessary to transfer the application to another peer review committee.

## References

[\*Government of Canada Business Process Reference Model\*](#)

[\*Conflict of Interest and Confidentiality\*](#)

[\*Directive on Identity Management\*](#)

[\*TGMS Outcomes Map\*](#)

[\*Appeals of NSERC Funding Decisions\*](#)

[\*Appeals of Decisions Based on Merit Reviews \(SSHRC\)\*](#)

## Abbreviations & Acronyms

Term	Definition
BCM	Business Capability Model

<b>Term</b>	<b>Definition</b>
CIHR	Canadian Institute of Health Research
CV	Curriculum Vitae
DRF	Departmental Results Framework
FC	Funding Cycle
FO	Funding Opportunity
FS	Funding Structure
KPI	Key Performance Indicator
NSERC	Natural Science and Engineering Research Council
SSHRC	Social Sciences and Humanities Research Council
TGMS	Tri-Agency Grants Management Solution
Ts & Cs	Terms and Conditions

## Appendix D – Acts, Policy Guidelines, and Instruments

*This appendix has been provided with the sole intent of informing the Contractor of the Acts, Policies, Guidelines and instruments that will impact the GC's provisioning and consumption of the Services.*

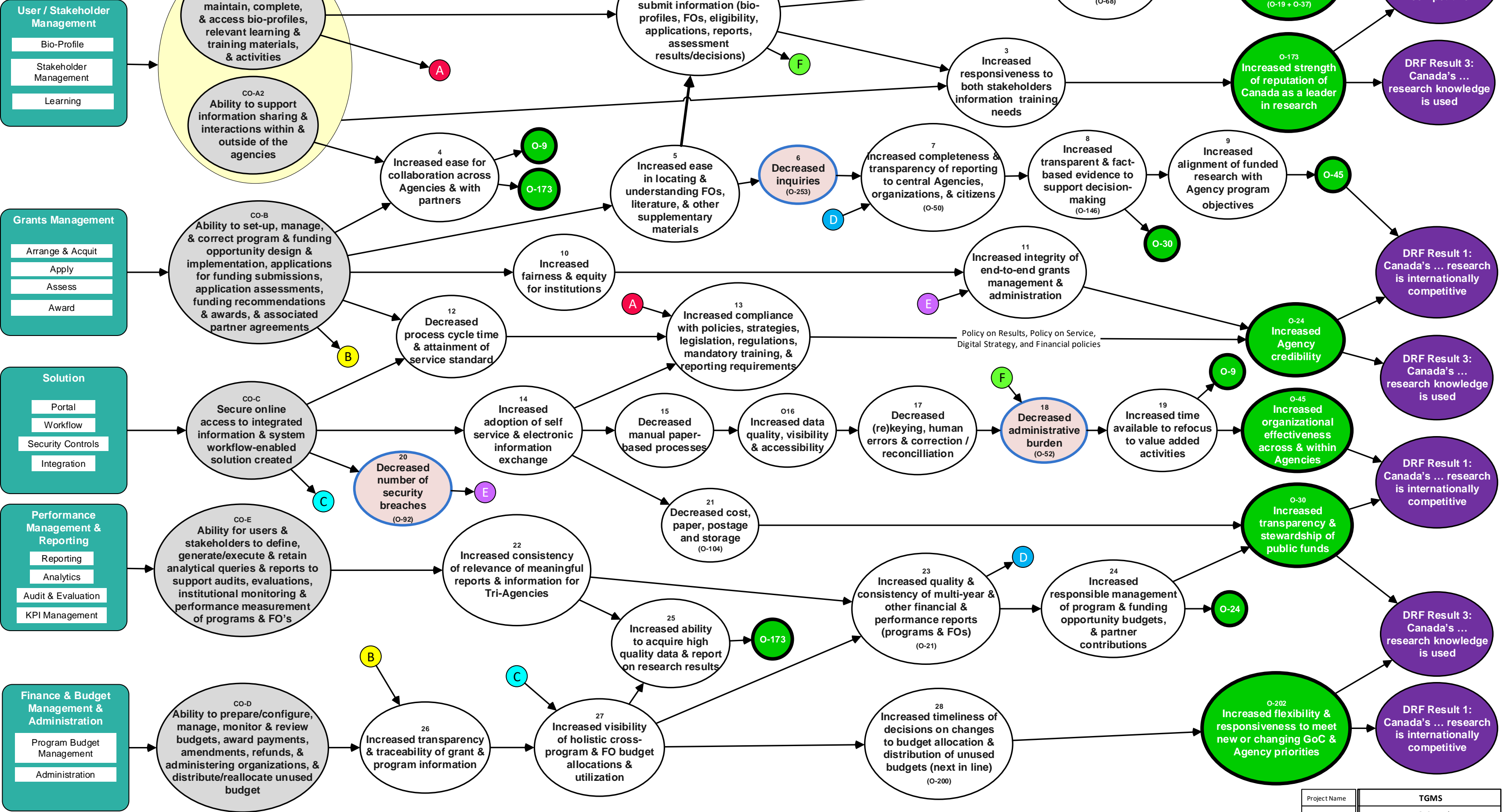
Acts, Policy Guidelines And Instruments	URL
Access to Information Act	<a href="http://laws-lois.justice.gc.ca/eng/acts/A-1/index.html">http://laws-lois.justice.gc.ca/eng/acts/A-1/index.html</a>
Official Languages Act	<a href="http://laws.justice.gc.ca/eng/acts/O-3.01/index.html">http://laws.justice.gc.ca/eng/acts/O-3.01/index.html</a>
Privacy Act	<a href="http://laws.justice.gc.ca/eng/acts/P-21/index.html">http://laws.justice.gc.ca/eng/acts/P-21/index.html</a>
Policy on Access to Information	<a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12453">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12453</a>
Policy on Information Management	Policy on Service and Digital: <a href="https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32603">https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32603</a> Directive on Service and Digital: <a href="https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32601">https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32601</a>
Directive on Identity Management	<a href="https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=16577">https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=16577</a>
Generic Valuation Tools	<a href="http://www.bac-lac.gc.ca/eng/services/government-information-resources/guidelines/generic-valuation-tools/Pages/introduction.aspx">http://www.bac-lac.gc.ca/eng/services/government-information-resources/guidelines/generic-valuation-tools/Pages/introduction.aspx</a>
GC Standard on Security Screening	<a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=28115">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=28115</a>
Policy on Acceptable Network and Device Use	Policy on Service and Digital: <a href="https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32603">https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32603</a> Directive on Service and Digital: <a href="https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32601">https://www.tbs-sct.canada.ca/pol/doc-eng.aspx?id=32601</a>
Policy on Government of Canada Security	<a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=16578</a>
Direction on the Secure Use of Commercial Cloud Services: Security Policy Implementation Notice	<a href="https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-secure-use-commercial-cloud-services-spin.html">https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-secure-use-commercial-cloud-services-spin.html</a>
Government of Canada Cyber Security Event Management Plan (GC CSEMP)	<a href="https://www.canada.ca/en/government/system/digital-government/online-security-privacy/security-identity-management/government-canada-cyber-security-event-management-plan.html">https://www.canada.ca/en/government/system/digital-government/online-security-privacy/security-identity-management/government-canada-cyber-security-event-management-plan.html</a>

Acts, Policy Guidelines And Instruments	URL
CSE ITSG-33 IT Security Risk Management: A Lifecycle Approach	<a href="https://www.cyber.gc.ca/en/guidance/it-security-risk-management-lifecycle-approach-itgs-33">https://www.cyber.gc.ca/en/guidance/it-security-risk-management-lifecycle-approach-itgs-33</a>
CSE ITSG-22 Baseline Security Requirements for Network Security Zones in the Government of Canada	<a href="https://www.cyber.gc.ca/en/guidance/baseline-security-requirements-network-security-zones-government-canada-itgs-22">https://www.cyber.gc.ca/en/guidance/baseline-security-requirements-network-security-zones-government-canada-itgs-22</a>
CSE ITSG-38  Network Security Zoning - Design Considerations for Placement of Services within Zone	<a href="https://www.cyber.gc.ca/en/guidance/network-security-zoning-design-considerations-placement-services-within-zones-itgs-38">https://www.cyber.gc.ca/en/guidance/network-security-zoning-design-considerations-placement-services-within-zones-itgs-38</a>
CSE ITSP.30.031 V3 User Authentication Guidance for Information Technology Systems	<a href="https://cyber.gc.ca/en/guidance/user-authentication-guidance-information-technology-systems-itsp30031-v3">https://cyber.gc.ca/en/guidance/user-authentication-guidance-information-technology-systems-itsp30031-v3</a>
CSE ITSP.40.111 Cryptographic Algorithms for UNCLASSIFIED, PROTECTED A, and PROTECTED B Information	<a href="https://www.cyber.gc.ca/en/guidance/cryptographic-algorithms-unclassified-protected-and-protected-b-information-itsp40111">https://www.cyber.gc.ca/en/guidance/cryptographic-algorithms-unclassified-protected-and-protected-b-information-itsp40111</a>
CSE ITSP.40.062 Guidance on Securely Configuring Network Protocols	<a href="https://www.cyber.gc.ca/en/guidance/guidance-securely-configuring-network-protocols-itsp40062">https://www.cyber.gc.ca/en/guidance/guidance-securely-configuring-network-protocols-itsp40062</a>
RCMP G1-024 Control of Access	<a href="http://www.rcmp-grc.gc.ca/physec-secmat/pubs/g1-024-eng.htm">http://www.rcmp-grc.gc.ca/physec-secmat/pubs/g1-024-eng.htm</a>
RCMP G1-026 Guide to the Application of Physical Security Zones	<a href="http://www.rcmp-grc.gc.ca/physec-secmat/pubs/g1-026-eng.htm">http://www.rcmp-grc.gc.ca/physec-secmat/pubs/g1-026-eng.htm</a>



\*Note: For the purpose of visual simplicity, the final outcome O-9 represents a combination of outcomes O-19 (Increased external stakeholder satisfaction) and O-37 (Increased internal staff satisfaction)

# Summary



Legend: Activity Output/Immediate Outcome Intermediate Outcome Final Outcome DRF Result Blue Border = Outcome Register Connector Contribution

Project Name	TGMS
Drawn by:	BDO Canada
Date:	July 20, 2020

Final Outcomes	
O-9	Increased internal and external user satisfaction
O-24	Increased Agency credibility
O-30	Increased transparency and stewardship of public funds
O-45	Increased organizational effectiveness across and within Agencies
O-173	Increased strength of reputation of Canada as a leader in research
O-202	Increased flexibility and responsiveness to meet new or changing GoC and Agency priorities

Appendix F: TGMS Conceptual Data Model

The CDM data taxonomy – the structure of the CDM

The CDM uses the structures defined in the document entitled *Preliminary Gateway Conceptual Data Model – Information Taxonomy*, which outlines the preliminary core (essential) business data and common vocabulary for the TGMS. This taxonomy orders the data by business affinity, to produce a business-based organization of the data. The taxonomic structure helps identify and cluster data entities into partitions that facilitate a data-driven analysis of business functionality. The TGMS taxonomy establishes a hierarchy that descends to four levels, and is designated through a numbering scheme described below:

Taxonomic Layer	Unique Identifiers (numbering scheme)
Information Domains	Uniquely identified by a number per Domain: e.g., 1, 2, 3, ...9
Information Subjects	Uniquely identified based on the numbering of the Information Domain within which the Subject resides: e.g., 1.1, 1.2, ...1.n
Facets	Uniquely identified based on the numbering of the Information Subject within which the Facet resides: e.g., 1.1.1, 1.1.2, ...1.1.n
Entities	Uniquely identified based on the numbering of the Facet within which the Entity resides: e.g., 1.1.1.1, 1.1.1.2, ...1.1.1.n

The four levels of the hierarchical structure are defined in Figure 1 below, and defined further in the separate sections of this document. The first three levels of the taxonomy are Organizing Concepts (pigeonholes) that provide the structural basis for identifying entities and relationships. The data and business rules reside in the Entity Relationship Models (also called E-R diagrams) that reside in each Facet.

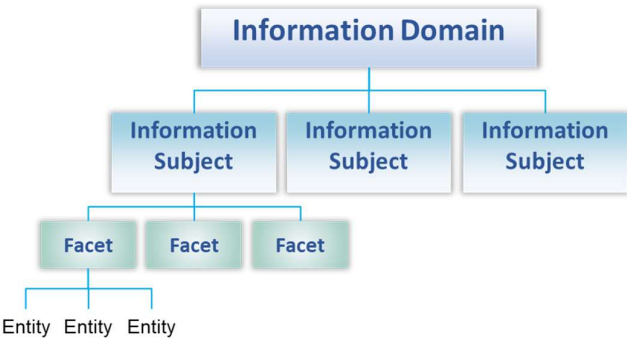


Figure 1 - CDM Taxonomy Structure

Information Domains

The first level of the TGMS Taxonomy model is the Information Domain Level. This level is the highest-level partitioning (or grouping) of information, and identifies the fundamental Information categories that the enterprise requires in order to conduct its business. The basic Information Domains are depicted in Figure 2 below.



Figure 2 - Information Domains

The Domains are typically the most stable component of the Enterprise level Information model, and are only added to (or reduced), when the enterprise undergoes a dramatic change in its fundamental business.

### Information Subjects

The next level of the Gateway Taxonomy model, is the Information Subject Level. Each Information Subject is presented in a Subject diagram, which partitions the Subject into Facets, and depicts the high-level relationships between those Facets. This partitioning is also based on high-level aspects of the business.

### Facets

Within each Information Subject are Facets (or Subject Areas). Facets are ‘clusters’ of business entities and their relationships. They are the most critical building blocks of the CDM, where the entities and their associated business rules are described. This level of the conceptual Information model is relatively volatile, and reflects the constant refinement in the understanding of the information needs of the TGMS business.

### Entities and Relationships

Entities and Relationships are the next level of structure and are the basis for standard entity-relationship models that may be created at the Project Level. Entities and Relationships are the lowest level of taxonomy structure and describe a thing of interest to the organization. They are organized into Entity-Relationship diagrams (E-R diagrams), which are contained in each Facet. The TGMS CDM models the entities and relationships in third normal form<sup>1</sup>, which provides the most business-focused and technology independent viewpoint of the business information.

Each Facet is described by two E-R diagrams: the first is the complete diagram, which portrays the entities, their attributes and their relationships. The second diagram is a simplified diagram that depicts only the entities and their relationships.

### The CDM context diagram

Figure 3 provides a high level context of the CDM, outlining the inventory of Domains, Subjects and Facets that are contained in the CDM. Each ‘folder’ in the diagram represents an Information Subject. Each Information Subjects is colour coded to identify the Information Domain in which it belongs.

<sup>1</sup> Third normal form (3NF) is a data design approach that targets clarity and de-duplication of data, reduces data anomalies, ensures referential integrity, and simplifies data management. A data model is said to meet third normal form standards if all the attributes of an entity are functionally dependent only on the primary key. The 3NF principles build on normalization principles provided by first normal form (1NF) and second normal form (2NF).

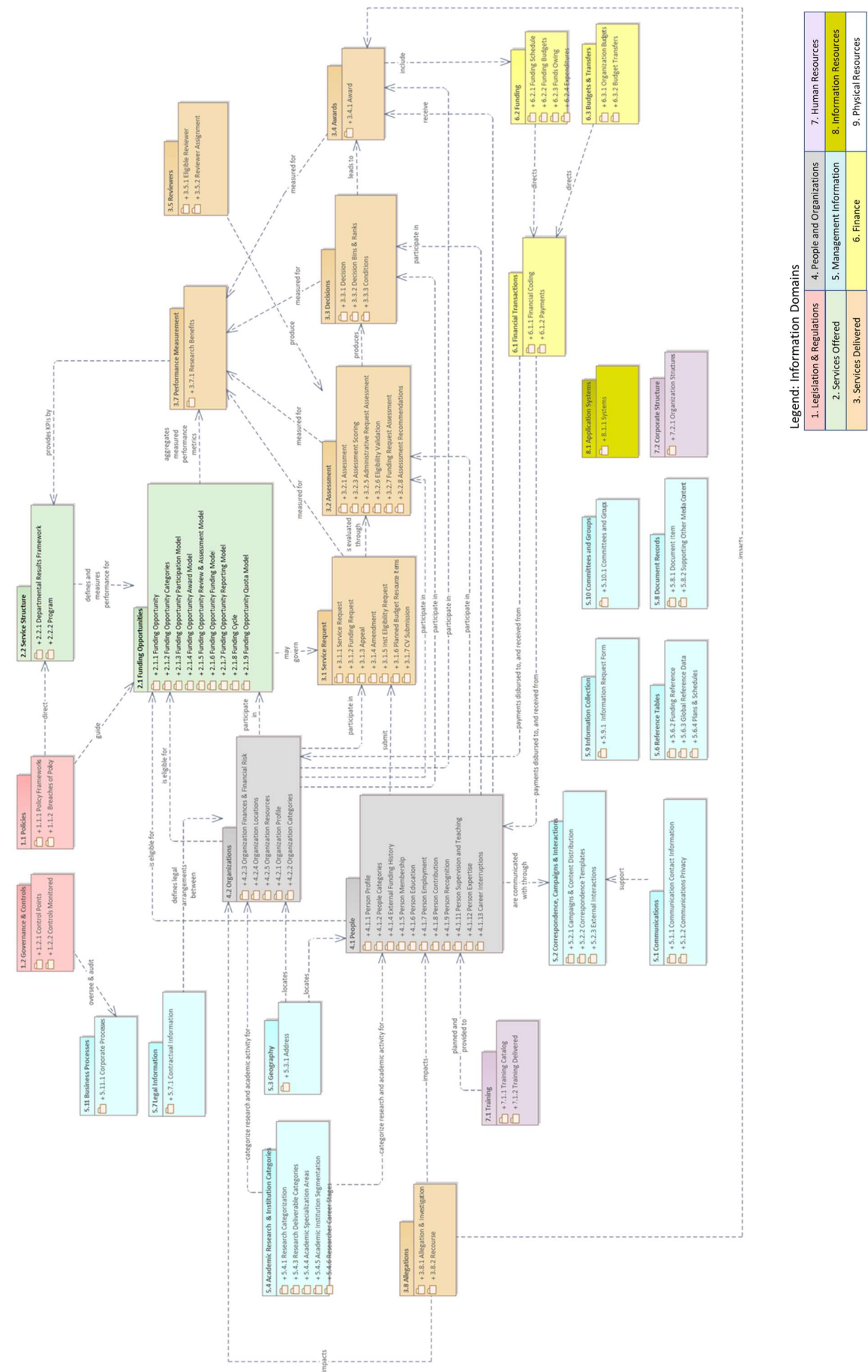


Figure 3 - CDM Context Diagram



The CDM is aligned closely with the TGMS Business Capabilities, and the TGMS Journey Maps.

### *The Approach for development of the CDM*

The first draft of the CDM was produced through a year long process of analysis, verification and socialization. This process engaged subject matter experts (business and technical) from across the TGMS team and the agencies. The CDM development and verification workshops were structured and organized based on the TGMS business capabilities model, with subject matter experts (SMEs) allocated to the workshops by the Internal Change Agent Network (ICAN).

The modeling work was performed using the Sparx EA tool, and was presented for review and commenting using the Prolaborate web-based environment. This document was generated from the Sparx EA repository and represents the contents of the TGMS CDM model as created and verified in the CDM workshops.

The development approach is described in Figure 4 below, with further details provided in Annex B of this document.

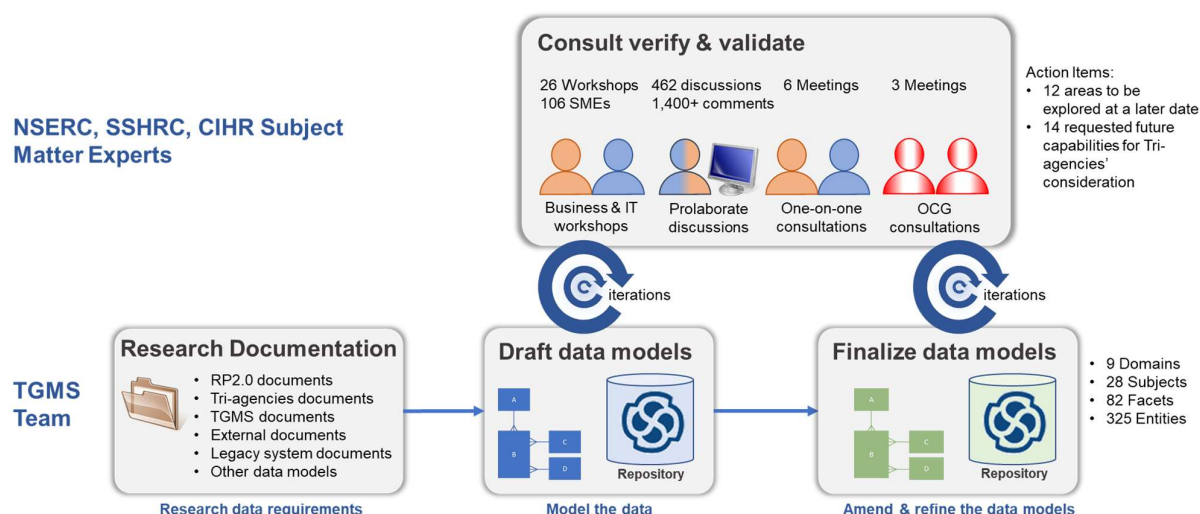


Figure 4 - CDM Development Approach

This CDM document represents a 'snapshot' of the TGMS data architecture, as captured in the Enterprise Architecture (EA) repository as of publication date of this document. The EA repository contains the most timely and accurate version of the data model, as well other architectural models (e.g., models of the Business Architecture, Application Architecture, and external models, such as the OCG Common Grants and Contributions Information Model), which have been aligned to the data model.

# 1. Legislation & Regulations Domain

This Domain manages data that defines the acts, regulations, policies, guidelines, processes, procedures and standards that in concert define the Services Offered. This includes the compliance rules that govern the delivery of the services.

## 1.1 Policies

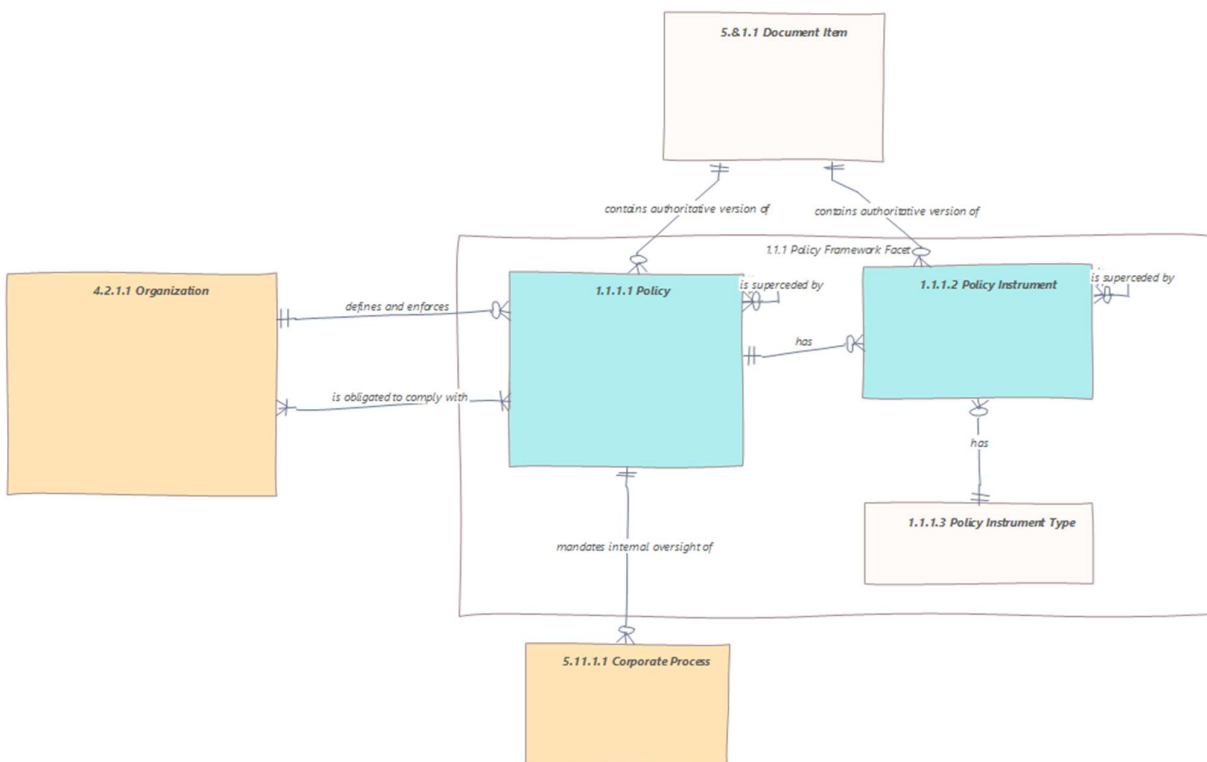
This subject defines data related to the definition of policies to which the TGMS business must adhere. These policies may originate from the agencies, Government of Canada central agencies (such as Treasury Board), Canadian legislation, or international agreements.

Note: while the policies subject is generic and can be used to manage data related to policies in general, the present scope of the analysis is focused on TGMS. This does not preclude this subject from further evolution at a later point.

### 1.1.1 Policy Frameworks

This facet describes data related to the definition of policies to which the TGMS business must adhere. These policies may originate from the agencies, Government of Canada central agencies (such as Treasury Board), Canadian legislation, or international agreements.

Tri-agency policies and requirements relate to such business areas as applying for and managing tri-agency funds, performing research, and disseminating results, and the processes that institutions and agencies follow in the event of an allegation of a breach of a tri-agency policy.



1.1.1 Policy Frameworks - Simplified

#### 1.1.1.1 Policy

Defines data related to a policy to which the TGMS business must adhere. Policies may originate from a variety of sources, including the agencies, Government of Canada central agencies (such as Treasury Board), Canadian legislation, or international agreements.

Note: the present scope of the analysis is focused on TGMS. This does not preclude this entity from further evolution at a later point.

#### 1.1.1.2 Policy Instrument

Defines documents such as directives, guidelines, standards, tools and procedures that support the implementation of a policy.

#### 1.1.1.3 Policy Instrument Type

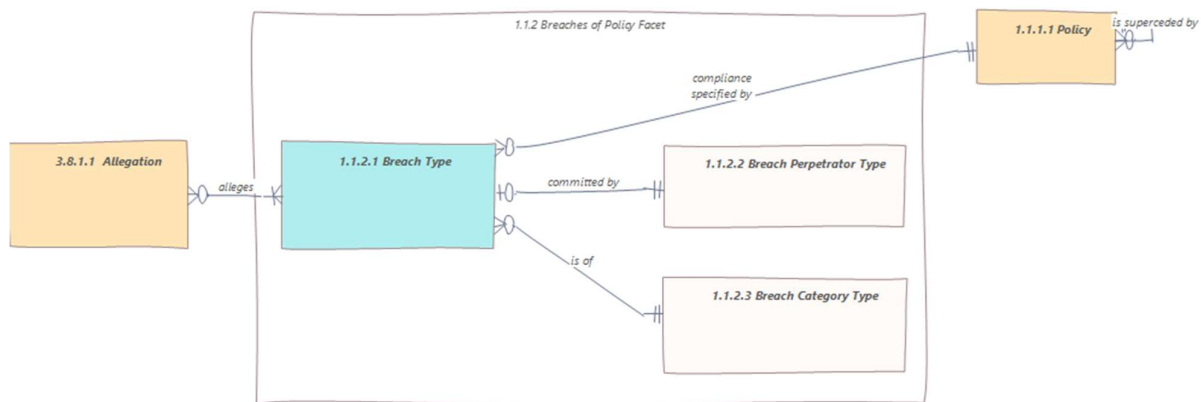
Defines the category of policy instrument, such as:

- policy
- directive
- standard
- guideline
- specification

### 1.1.2 Breaches of Policy

This facet manages data that defines what the RCR Framework considers to be a breach (i.e., a failure to comply with any Agency policy) throughout the life cycle of a research project – from application for funding, to the conduct of the research and the dissemination of research results. It includes all activities related to the research, including the management of Agency funds.

**Note:** This definition of a breach is considered adequate at this point to generalize to other policy areas.



1.1.2 Breach of Agency Policy - Simplified

#### 1.1.2.1 Breach Type

Defines a specific type of failure to comply with a tri-agency policy.

For example, the Responsible conduct of research (RCR) framework is a policy that sets out the responsibilities and corresponding policies for researchers, institutions, and the agencies, that together help



support and promote a positive research environment. Breaches of the RCR Framework may occur throughout the life cycle of a research project – from application for funding, to the conduct of the research and the dissemination of research results.

For example, researchers may commit the following RCR framework breach categories:

- *Breach of tri-agency research integrity policy* - breaches include fabrication, falsification, destruction of research records, plagiarism, redundant publication or self-plagiarism, invalid authorship, inadequate acknowledgement, mismanagement of conflict of interest
- *Misrepresentation in an Agency Application or Related Document* - breaches include providing incomplete, inaccurate or false information in an application or related document, applying for and/or holding an agency award when deemed ineligible, listing of co-applicants, collaborators or partners without their agreement
- *Mismanagement of Grants or Award Funds* - breaches include using grant or award funds for purposes inconsistent with the policies of the agencies, such as misappropriating funds, contravening agency financial policies, providing incomplete, inaccurate or false information on documentation for expenditures
- *Breach of Agency Policies or Requirements for Certain Types of Research* - breaches include failing to meet Agency policy requirements or, failure to comply with relevant policies, laws or regulations, for the conduct of certain types of research activities; failing to obtain appropriate approvals, permits or certifications before conducting these activities.
- *Breach of Agency Review Processes* - breaches include non-compliance with the Conflict of Interest and Confidentiality Policy, participating in an Agency review processes while under investigation.

In accordance with the Agreement signed by the Agencies and each institution (Organization), the Agencies require that each institution comply with Agency policies as a condition of eligibility to apply for and administer Agency funds.

#### **1.1.2.2 Breach Perpetrator Type**

Defines the category of research community participant who may commit a breach, for example:

- researcher
- institution

#### **1.1.2.3 Breach Category Type**

Defines the nature of the breach. For example, the RCR Framework defines the following categories:

- Breach of Tri-agency Research Integrity Policy
- Misrepresentation in an agency application or related document
- Mismanagement of grants or award funds
- Breach of agency policies or requirements for certain types of research
- Breach of agency review processes

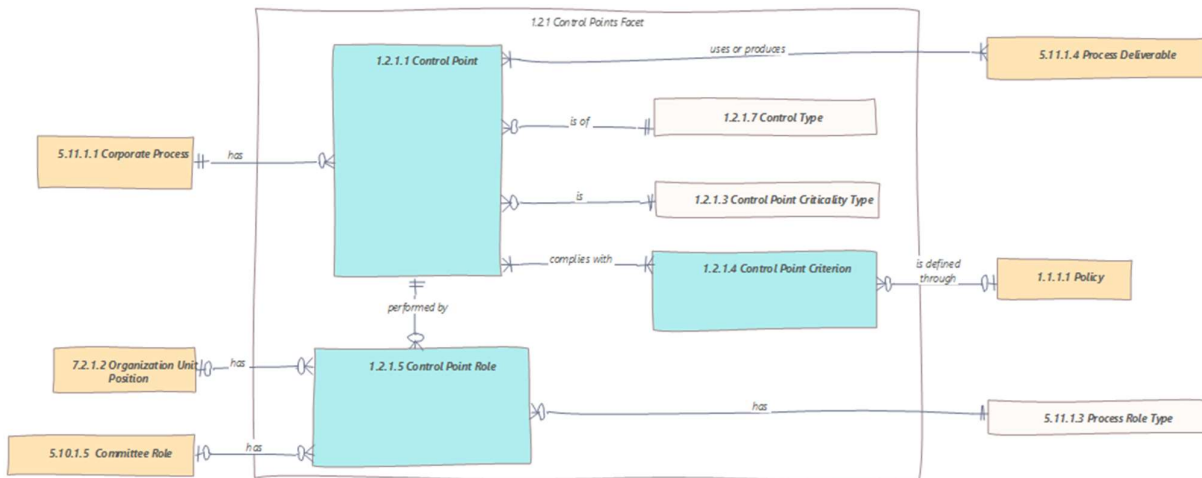
### **1.2 Governance and Controls**

This subject defines data that supports the TGMS governance framework, including the data required to define and execute governance controls, and enable audit and evaluation activities.

**Note:** the focus is primarily on TGMS processes, however the data support for the governance framework is intended to be scalable to allow it to evolve and support other governance, audit and evaluation constructs.

## 1.2.1 Control Points

This facet describes the information required in order to identify and manage governance control points in TGMS business processes. The information enables the definition of business process control points, as well as the ability to align them to their related policies, define their criticality, and the criteria and business rules that govern their implementation,



1.2.1 Control Points - Simplified

### 1.2.1.1 Control Point

Defines a control point implemented in a business process. A control point requires an authoritative approval be solicited before the business process can proceed to completion. Some business processes may require only one control point, while other require more than one to enable or block the subsequent steps in the implementation of a business process.

Any business process that has a control point is considered a monitored process.

Examples of control points are:

- FAA Section 33 or 34 approval
- FAA Sec 32a approvals of authority to commit funds against an appropriation (e.g. DOA, FA)
- DG or AVP quality assurance reviews or plan approvals

### 1.2.1.3 Control Point Criticality Type

Defines whether the control point is considered:

- a key control
- a non-key control

### 1.2.1.4 Control Point Criterion

Defines the criteria that are used to determine whether the control point is exercised, who should be involved, what level of authority is required to pass the control point. For example:

- for grants under \$5M, the control point requires review by the Financial Advisor (FA)
- for grants over \$5M, the control point requires review by the FA, the Sub-Committee on Implementation and Oversight (SCIO) and the Science Council (SC)

#### 1.2.1.5 Control Point Role

Defines the roles that are performed by an organization unit position or committee in the conduct of a specific control point.

#### 1.2.1.6 Control Point Role Type

Defines the category of role that an organization unit position can play in the conduct of a control point, for example:

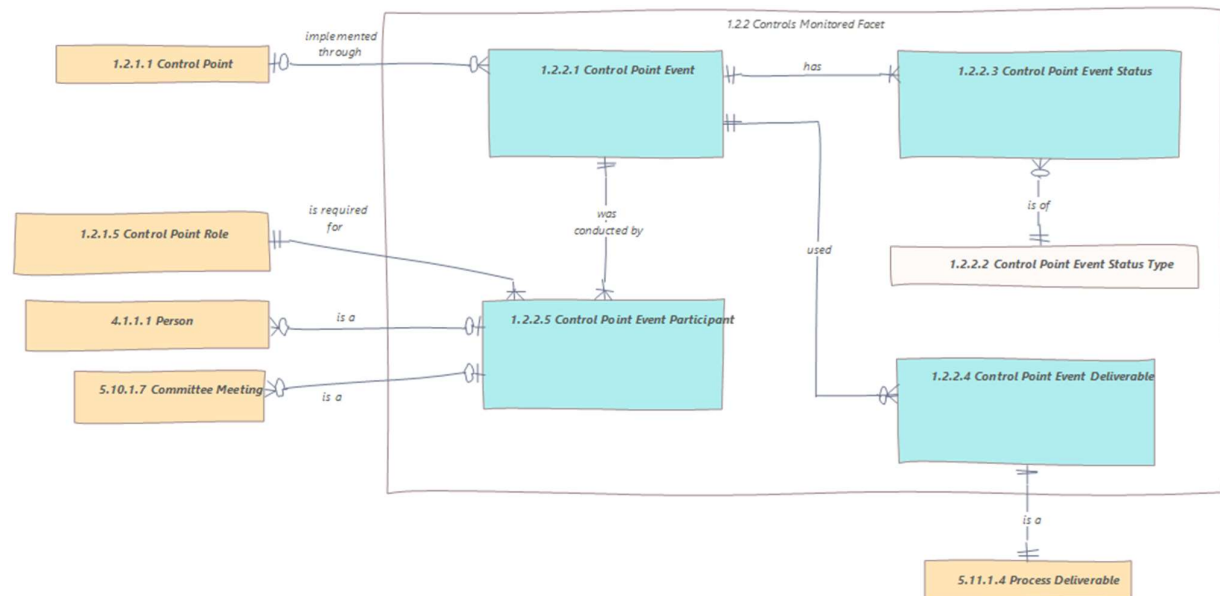
#### 1.2.1.7 Control Type

Defines the type of control that a particular control point is intended to address. For example:

- process controls (e.g., compliance with legal, regulatory, policies and operational procedures)
- financial controls (e.g., budget, benefit management, and financial transaction controls)
- security controls (e.g., physical and logical access)
- risk controls (e.g., accepted risk and residual risk levels, risk mitigation, and business continuity)
- data quality controls
- ethical conduct controls

### 1.2.2 Controls Monitored

This facet manages the data required in order to monitor the execution of the required control points in monitored TGMS business processes.



1.2.2 Controls Monitored - Simplified

#### ***1.2.2.1 Control Point Event***

Defines the data collected when a business process is subjected to its control point.

#### ***1.2.2.2 Control Point Event Status Type***

Defines the status categories of a control point event, i.e., defines the result of the control point event. For example:

- control point not evaluated
- control point successfully completed
- control point conditionally completed
- control point not successfully completed

#### ***1.2.2.3 Control Point Event Status***

Defines the statuses attained by a particular control point event over time.

#### ***1.2.2.4 Control Point Event Deliverable***

Defines the deliverables used and produced in this control point event.

#### ***1.2.2.5 Control Point Event Participant***

Defines the persons or committees that participated in the control point event, based on the required control point role that they fulfilled.

## 2. Services Offered Domain

This Domain manages data that defines the programs and services offered by the organization.

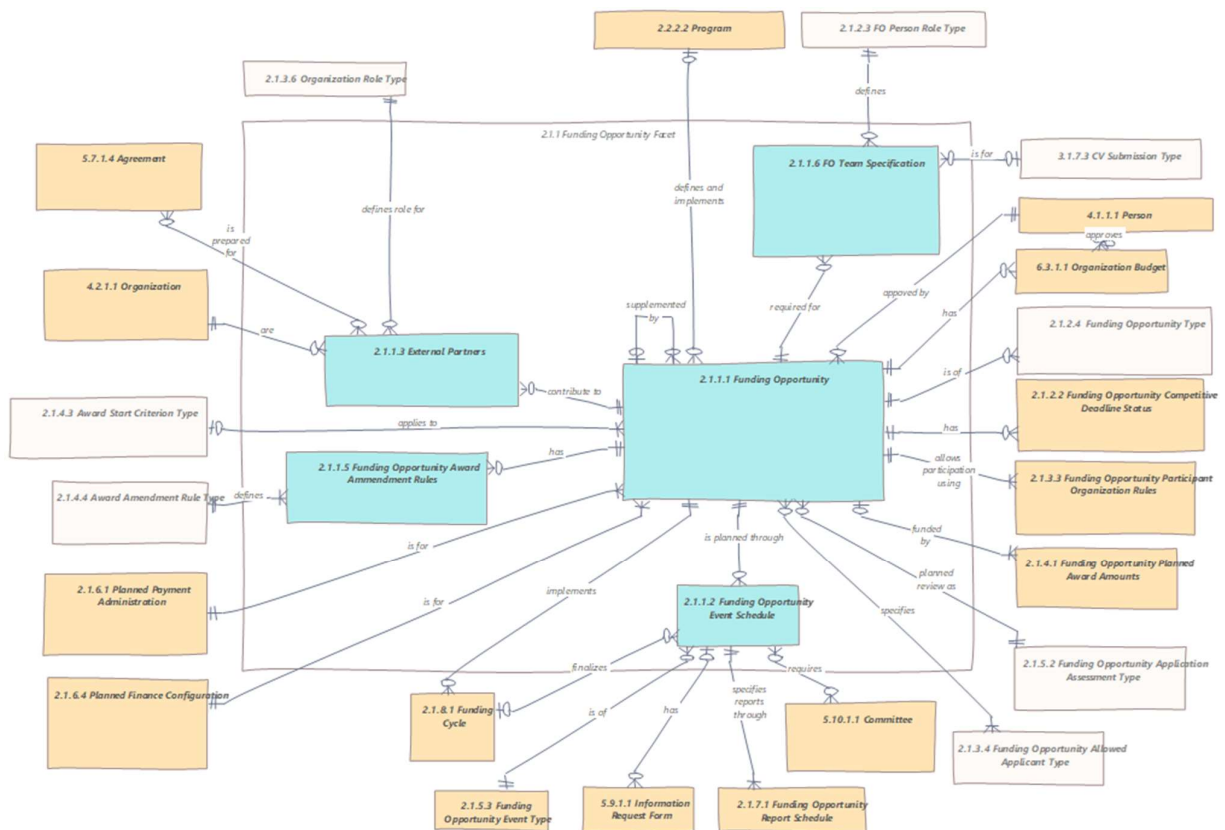
For TGMS, these are the programs mandated by legislation and regulation instruments, and the services defined to deliver the programs' outcomes.

Services Offered Information includes the definition of the programs, their services, the rules used to manage the 8 'A's of the grants and contribution business, and the expected performance outcomes of each Program and Service.

## 2.1 Funding Opportunities

This Subject defines the data related to the creation of Funding Opportunities. A Funding Opportunity is the plan or specification that enables the agencies to award money to a Person or Organization for the purposes of a specified area of research.

### 2.1.1 Funding Opportunity



### 2.1.1 Funding Opportunity - Simplified

#### 2.1.1.1 Funding Opportunity

Describes the structure that defines a research endeavor which will be funded by the agencies or other related granting agencies with whom the agencies have information sharing agreements. Example Funding Opportunities are:

- Project Grant
- Banting Post-Doctoral Fellowships

A Funding Opportunity specifies the subject matter, and the set of operational characteristics that define the grant application process, assessment process, award process, and subsequent finance and tracking of a research endeavor.

Funding opportunities include such supplemental funding opportunities as:

- DND (Department for National Defense)
- CFI (Canada Foundation for Innovation)
- CREATE (Collaborative Research and Training Experience Program)
- Digging into Data Challenge
- CMHC (Canada Mortgage and Housing Corporation) Housing Research Scholarship Program

#### ***2.1.1.2 Funding Opportunity Event Schedule***

Describes the unique life cycle events which will be expected of a specific Funding Opportunity. Different Funding Opportunities will use different specific events, and may use them in a different sort sequence. Example Funding Opportunity events are described in 2.1.5.3 Funding Opportunity Event Type.

Award start dates present challenges and require flexibility to allow such cases as:

- doctoral awards may have 3 start dates
- post-doctoral award - any first of the month between May 1 and Jan 1
- set start date for entire cohort, which is consistently applied for the entire cohort

#### ***2.1.1.3 External Partners***

Defines the external organizations that partner with the agencies to contribute to the arrangement and execution of a given Funding Opportunity.

#### ***2.1.1.4 Funding Opportunity Specified Applicant Type List***

Defines the types of Applicants allowed (specifically) to submit an Application for the specific Funding Opportunity. For example:

- Individual
- Organizational (institution)
- Group (Team)

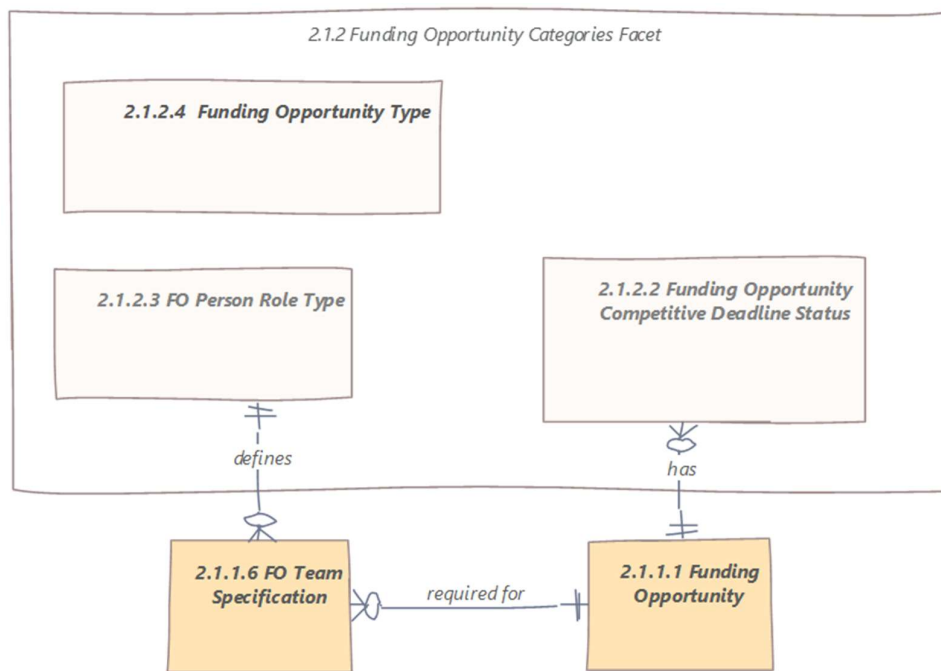
#### ***2.1.1.5 Funding Opportunity Award Amendment Rules***

Defines the amendments allowed for the specific funding opportunity.

#### ***2.1.1.6 FO Team Specification***

Defines the expected types of roles in the team that will be proposed for this Funding Opportunity.

## 2.1.2 Funding Opportunity Categories



2.1.2 Funding Opportunity Categories - Simplified

### 2.1.2.2 Funding Opportunity Competitive Deadline Status

Specifies if a funding opportunity has a set deadline (Closed) vs no deadline (Open).

- Open
- Closed

### 2.1.2.3 FO Person Role Type

Defines the possible roles a person can play in a Funding Opportunity, for example:

- nominated principal applicant
- principal applicant
- co-applicant
- collaborator
- supervisor
- reviewer
- reference
- knowledge user

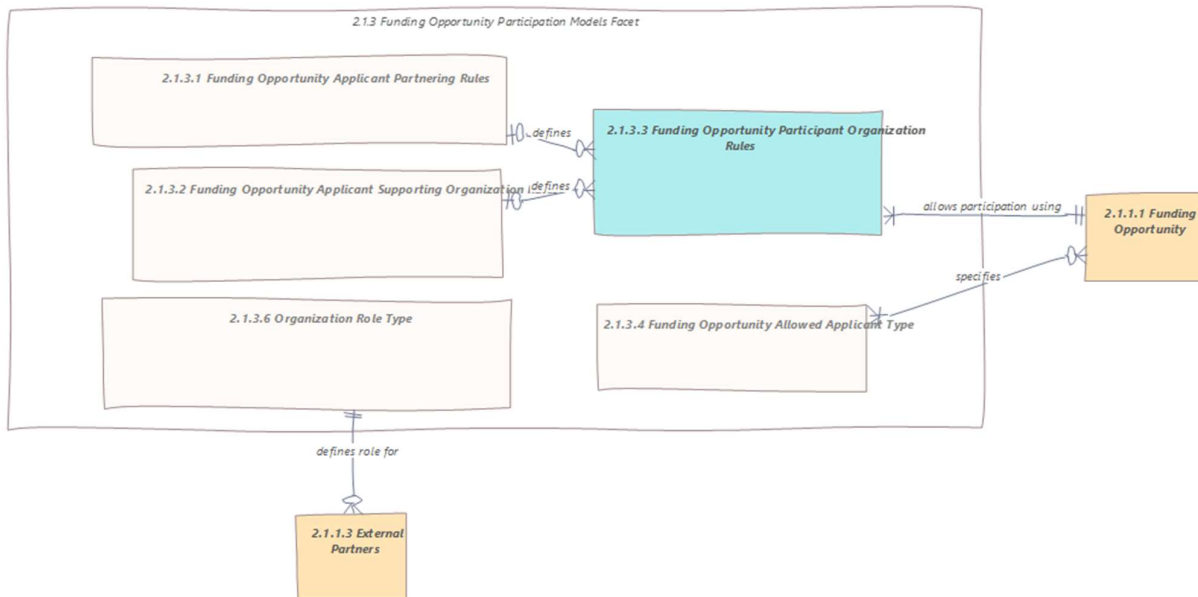
### 2.1.2.4 Funding Opportunity Type

Defines the values used in defining the type of Funding Opportunities supported by the agencies. The Funding Opportunity type affects the Funding Opportunity's financial and administrative details. Example Funding Opportunity Types are:

- Prize

- Grant
- Scholarships and Fellowships
- Supplement

### 2.1.3 Funding Opportunity Participation Model



2.1.3 Funding Opportunity Participation Models - Simplified

#### 2.1.3.1 Funding Opportunity Applicant Partnering Rules

Determines if a funding opportunity allows applicant Organizations to partner. Codes include:

- Yes
- No
- Mandatory

#### 2.1.3.2 Funding Opportunity Applicant Supporting Organization Rules

Determines if this Funding Opportunity allows applicants to have supporting organizations. Codes include:

- Yes
- No
- Mandatory

#### 2.1.3.3 Funding Opportunity Participant Organization Rules

Defines the rules that allow a Funding Opportunity to be responded to by Partner Organization and Supporting Organization. These organizations appear in an application.

#### 2.1.3.4 Funding Opportunity Allowed Applicant Type

Defines the type of Applicant who will be allowed to submit an Application for the Funding Opportunities, for example:

- Individual



- Organizational (institution)
- Group (Team)

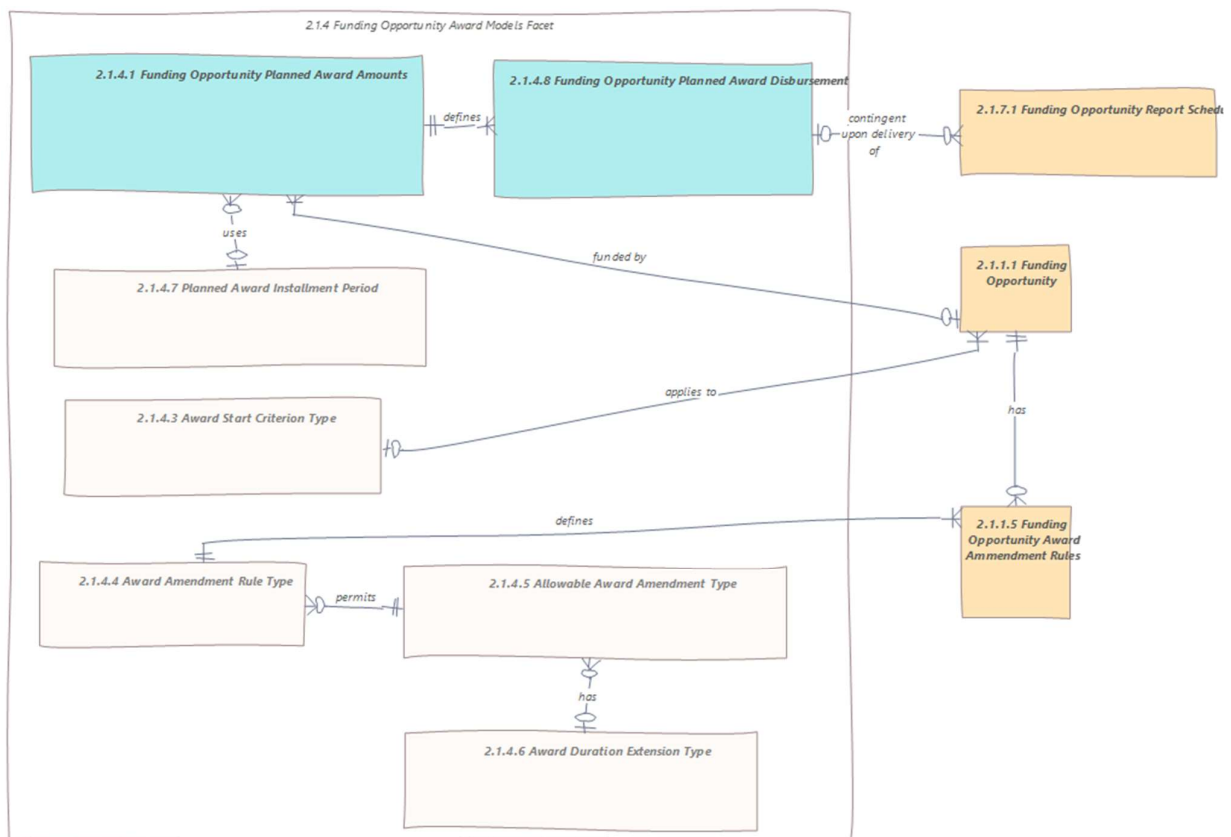
### 2.1.3.6 Organization Role Type

Defines the roles that may be played by organizations who contribute to the arrangement and execution of a Funding Opportunity or a service request. This may include roles such as:

- Co-funding Partners
- Contributions from other Organizations
- Joint initiatives, (funding, peer review participation, time, international/national hosting, administration, etc.)
- Administration (e.g., the agencies requests that an external organization manage the funding opportunity) - entered through a Grant Agreement
- Administering Institution
- Research Institution
- Partner
- Applicant
- Funding

### 2.1.4 Funding Opportunity Award Model

Defines information related to the planning and conditions surrounding award of the Funding Opportunity.



2.1.4 Funding Opportunity Award Models - Simplified

#### ***2.1.4.1 Funding Opportunity Planned Award Amounts***

Defines the planned amounts that will be awarded to the researchers for a given Funding Opportunity, and the disbursement constraints that will apply (e.g., maximal/minimal total amounts, and maximal annual amount).

This is a cash flow planning schedule.

#### ***2.1.4.3 Award Start Criterion Type***

Defines the criteria that determine the start date of an Award. These include such criteria as:

- Award Date
- Payment Schedule
- Application
- Fiscal year

Needs better definition of the criteria

#### ***2.1.4.4 Award Amendment Rule Type***

Defines allowable reasons for granting an amendment for a specific funding opportunity, for example:

- leaves of absence (e.g., family leave, maternity leave, medical leave, personal leave)
- replacement of nominated principle applicant or supervisor (e.g., personnel changes)

#### ***2.1.4.5 Allowable Award Amendment Type***

Defines the allowable amendments that can be executed for an Award. Examples are:

- Allow Automatic One Year Extension (increases duration only)
- Extension of Period Only (increase duration above levels of the initial duration allocation)
- Extension Funding Only (increase funding above levels of the initial funding allocation)
- Award Renewal (extending both the Award duration and funding) by an increment equal to the original duration and funding

#### ***2.1.4.6 Award Duration Extension Type***

Defines the type of Award duration extensions supported for Funding Opportunities. These include examples such as:

- Three month extension
- By request
- With additional funds (TBC)
- Automatic one-year extension (?)

Need a little more clarity on this

#### ***2.1.4.7 Planned Award Installment Period***

Defines the installment periods into which the Award payment can be divided. Example values are:

- Monthly

- Quarterly
- Semi-Annually
- Annually
- Deliverable-based

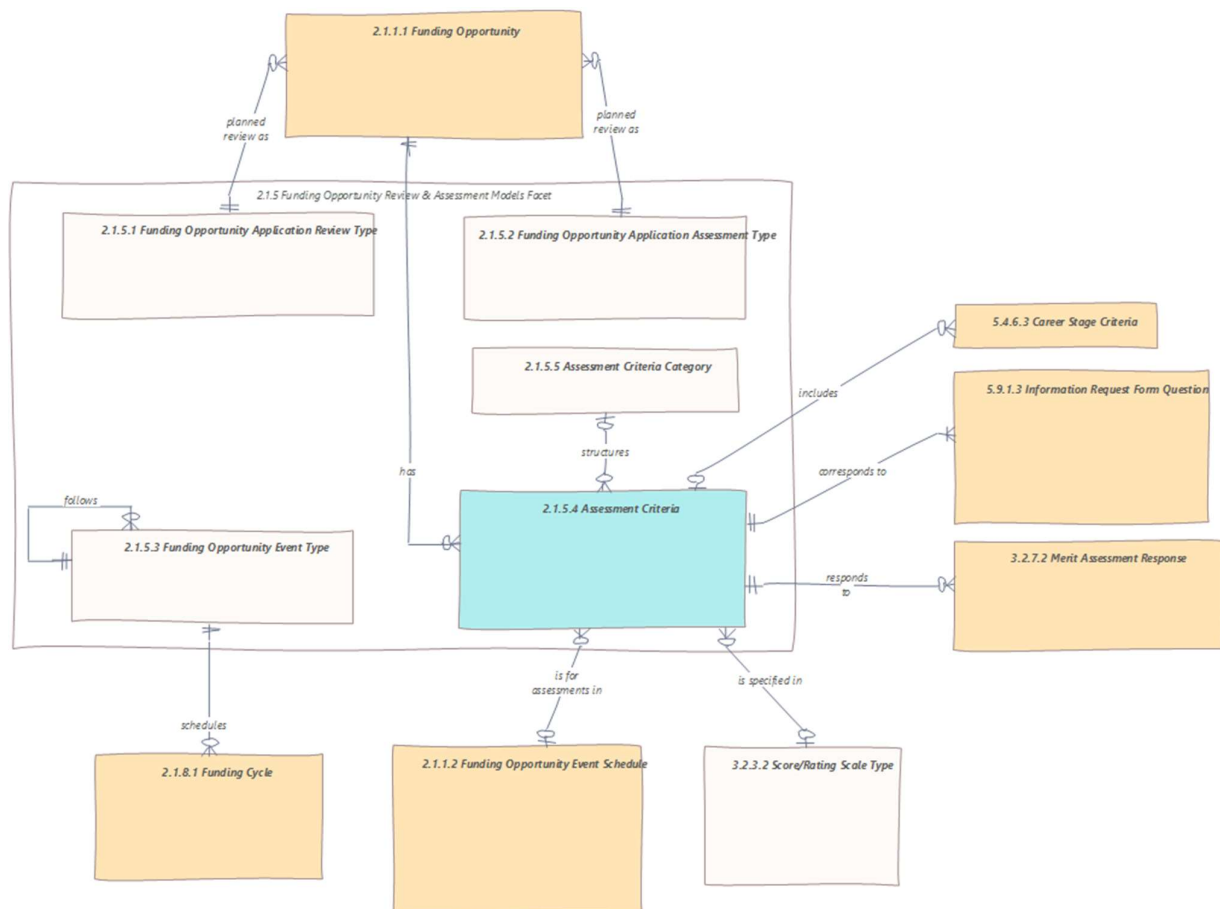
Presently, for NSERC-SSHRC Research Grants, the installment number corresponds to the fiscal year of the grant's duration. For example, a three-year grant has three installments.

#### 2.1.4.8 Funding Opportunity Planned Award Disbursement

Defines the manner in which the Award can be disbursed, for example:

- each disbursement is paid on a fixed schedule (based on the Planned Award Installment Period), or
- disbursements are contingent upon the delivery of a Report during that period.

### 2.1.5 Funding Opportunity Review and Assessment Model



2.1.5 Funding Opportunity Review & Assessment Model - Simplified

#### 2.1.5.1 Funding Opportunity Application Review Type

Describes the manner in which applications for a given Funding Opportunity will be reviewed (e.g., committee review, non-committee review).

#### ***2.1.5.2 Funding Opportunity Application Assessment Type***

Describes the type of application assessments applied to the Funding Opportunity, such as:

- Peer reviewed
- External reviewers
- Internal reviewers
- Expert panel
- Selection committee
- Steering committee

#### ***2.1.5.3 Funding Opportunity Event Type***

Defines the type of events through which a Funding Opportunity will progress from 'cradle to grave'.

Example event types are:

- Launch
- Letter of Intent or Registration
- Apply
- Application Assessment
- Eligibility Assessment
- Decision (Notice of Decision)
- Award
- Progress Report
- Final Report

Different Funding Opportunities may demand different life cycle stages for an application.

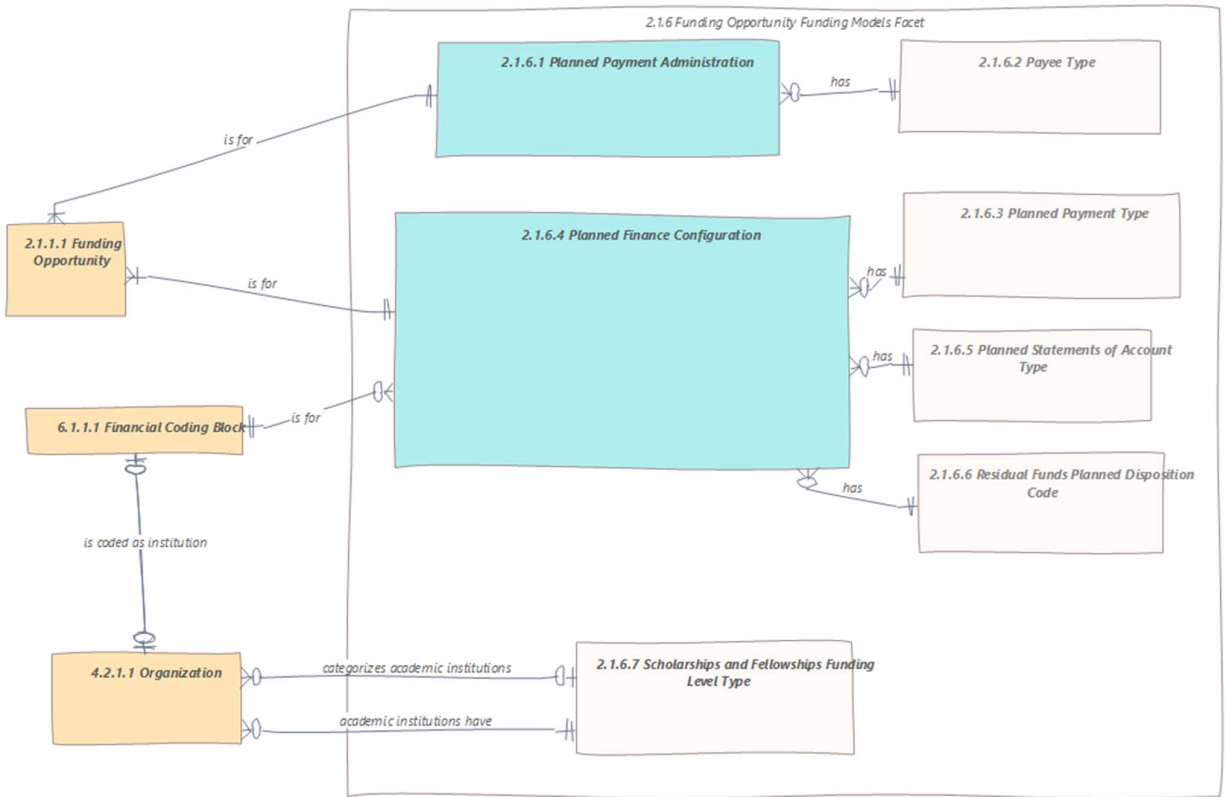
#### ***2.1.5.4 Assessment Criteria***

Assessment criteria list questions/criteria that can be used to assess different types of service requests like Funding Requests, Appeals, Amendments or Institutional Eligibility requests.

#### ***2.1.5.5 Assessment Criteria Category***

Defines a category structure for assessment criteria, partitioning them into themes or focus areas.

### **2.1.6 Funding Opportunity Funding Model**



**2.1.6 Funding Opportunity Funding Models - Simplified**

#### **2.1.6.1 Planned Payment Administration**

Defines payment administration details that can be specified for a given Funding Opportunity.

#### **2.1.6.2 Payee Type**

Defines the entity that will receive payments. Examples include:

- Institution (Common Account)
- Individual (Direct Account)

#### **2.1.6.3 Planned Payment Type**

Defines the planned payment as being either:

- Global
- Direct
- Both

Need a little more detail here.

#### **2.1.6.4 Planned Finance Configuration**

Defines the parameters that a given Funding Opportunity will establish for financial operations regarding projects that are awarded this Funding Opportunity.

#### 2.1.6.5 Planned Statements of Account Type

Defines the kinds of Statements of Account that will be generated by this Funding Opportunity. Examples are:

- None required
- Form 300
- Form 301
- Conditionally
- Other

Need some more detail here

#### 2.1.6.6 Residual Funds Planned Disposition Code

Defines where residual funds will be transferred after the Award duration has expired. Examples are:

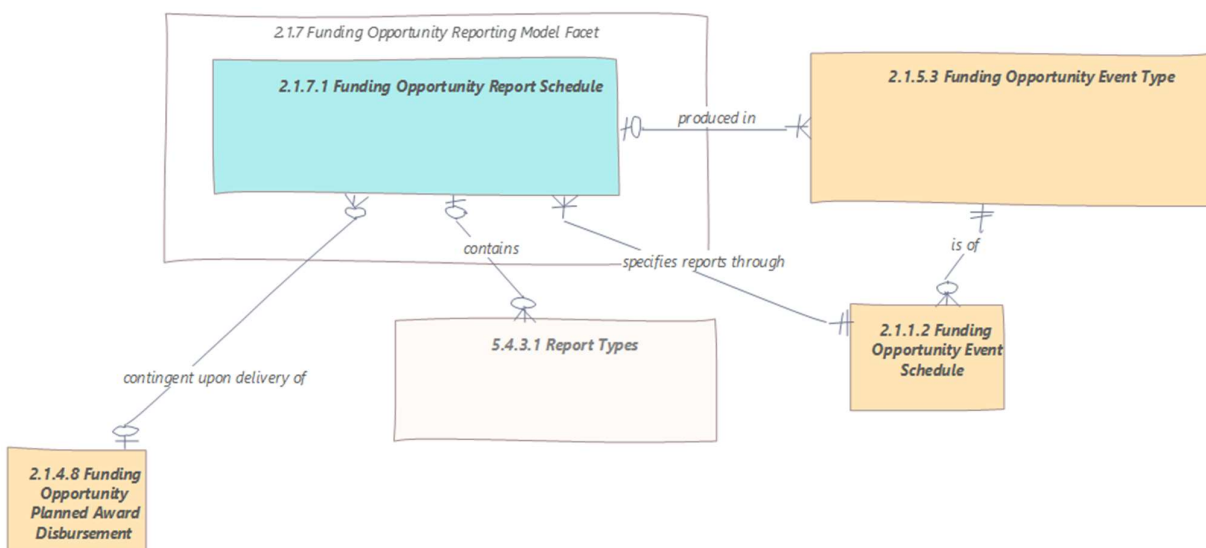
- General Research Fund (GRF)
- General Graduate Studies Fund (GGSF)
- Reimbursement to the Receiver General

#### 2.1.6.7 Scholarships and Fellowships Funding Level Type

An academic institution receives payments according to a schedule that is based on the level of Scholarships and Fellowships funding received at the academic institution within a year. For example:

- Schedule 1: < \$100,000
- Schedule 2: >= \$100,000

### 2.1.7 Funding Opportunity Reporting Model



2.1.7 Funding Opportunity Reporting Model - Simplified

### 2.1.7.1 Funding Opportunity Report Schedule

Defines the reports that a specific Funding Opportunity should deliver, and at what life cycle stage of the Funding Opportunity they should be delivered.

Reports include the external reports such as:

- Progress reports
- Final reports
- Surveys

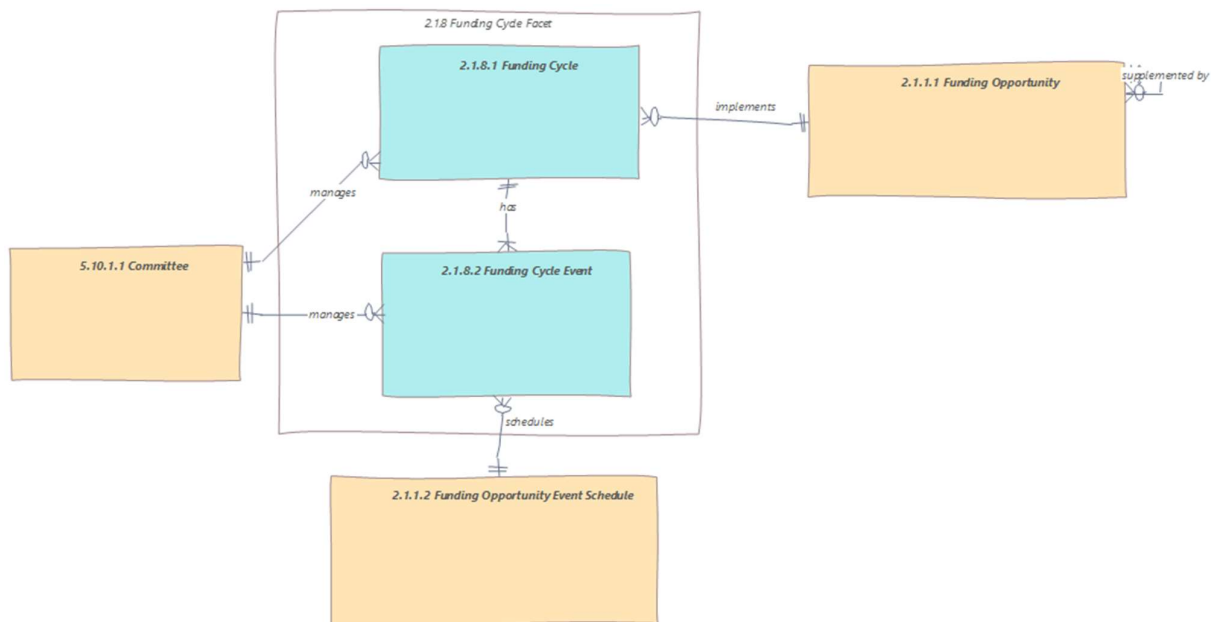
Reports can also include internal reports such as:

- Notice of Recommendation
- Notice of Decision

## 2.1.8 Funding Cycle

This Facet defines the data which the TGMS business uses to identify Funding Cycles. A Funding Cycle defines the characteristics of a Funding Opportunity that has been released for competition. It also describes a schedule to govern the life cycle of a Funding Opportunity, defining specific timing for such milestones as:

- deadlines for applicants to apply for a particular funding opportunity;
- deadlines for completion of application assessment; and
- deadlines for application award.



**2.1.8 Funding Cycle - Simplified**

### 2.1.8.1 Funding Cycle

A Funding Cycle describes the scheduled life cycle of a Funding Opportunity - i.e., the specific windows of time during which:

- applicants must apply for a particular funding opportunity;
- applications must be assessed; and

- applications must be awarded to the group of successful applicants (otherwise known as a cohort).

A Funding Cycle determines whether the Funding Opportunity is a closed competition (i.e., submission of applications is limited to a specific timeframe), or an open competition (i.e., application submission is allowed at any time throughout a given period).

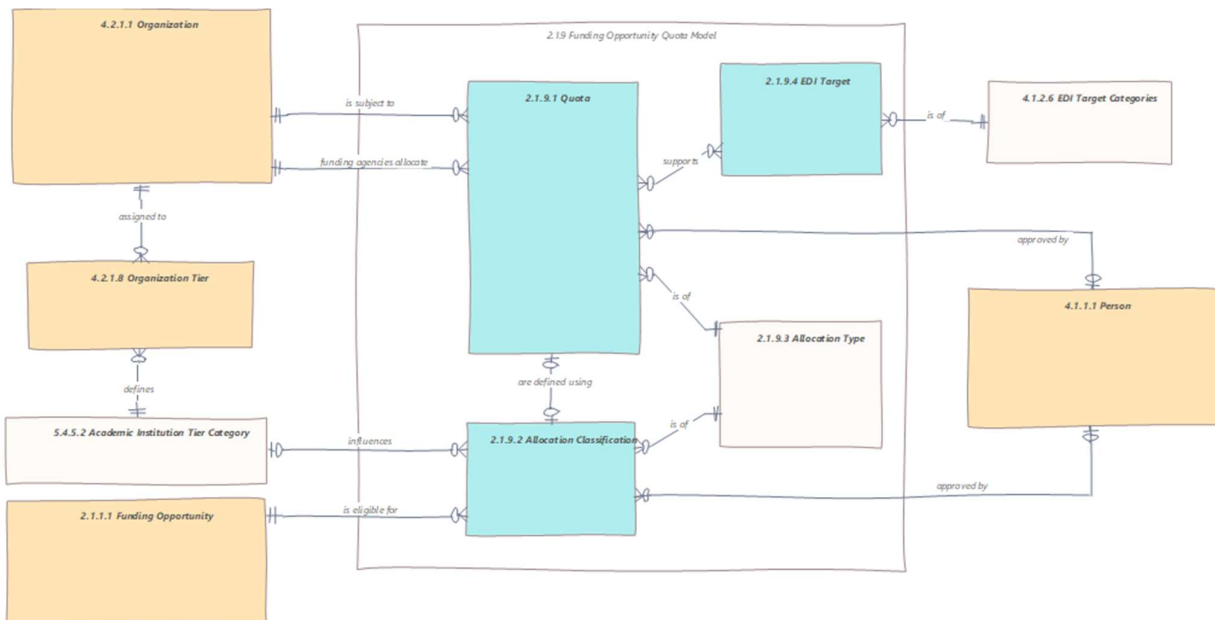
### 2.1.8.2 Funding Cycle Event

Defines the life cycle events (which may also be called milestones or deadlines) in the implementation of a Funding Opportunity. Each Funding Cycle Event is based on the original specification for that event, (as defined in the Funding Opportunity Life Cycle Schedule), but may be changed as warranted by implementation considerations.

### 2.1.9 Funding Opportunity Quota Model

This facet defines the quotas that are applied to TGMS participants. Quotas are pre-determined maximum allocations (e.g., of applications, or awards, or chairs or other tri-agency services) that the agencies will consider for an organization. They are intended to enable equitable access to TGMS services across Canadian institutions.

A Quota implements an allocation that has been determined through TGMS business rules and manual decisions. Quotas are set independently by each funding agency.



**2.1.9 Funding Opportunity Quota Model - Simplified**

#### 2.1.9.1 Quota

Defines a pre-determined maximum allocation (of applications, or awards, or chairs or other tri-agency services) that the agencies will consider for an organization.

A Quota implements an allocation that has been determined through TGMS business rules and manual decisions. Quotas are intended to enable equitable access to TGMS services across Canadian institutions.

Institutions receive separate quotas from each funding agency (CIHR, NSERC, and SSHRC).



### **2.1.9.2 Allocation Classification**

Defines the pre-determined number of tri-agency services that any organization can receive (e.g., applications, or awards, or chairs), based on an organization profile and the applicable tri-agency business rules.

An allocation classification aggregates the variables required to determine the constraints applied to a particular category of organization, and enables the calculation/derivation of the corresponding quota for that classification of organization.

Allocation calculations are unique to each funding agency (CIHR, NSERC, and SSHRC).

### **2.1.9.3 Allocation Type**

Defines the category of allocation, for example:

- application allocation - an institution may not submit more applications than determined by this quota.
- award allocation - an institution may not be awarded more than the number of awards determined by this quota.
- research chair allocation - an institution may not be granted more research chair positions than the number of chairs determined by this allocation.

### **2.1.9.4 EDI Target**

Defines the manner in which equity, diversity and inclusion targets ensure that individuals from the four designated groups (women, Indigenous peoples, persons with disabilities and members of visible minorities) participate in the program.

The EDI target-setting methodology uses the "availability approach". Availability is determined by estimating the representation of a designated group within the pool of potential nominees. The percentage of the estimated representation becomes the target to be met. The difference between this target and the percentage of current recipients who are members of that designated group becomes the equity gap to be addressed.

The following are examples of indicators for which EDI targets may be set:

- Percentage of women applicants in the competitions
- The proportion of university teachers that identify as Indigenous
- The proportion of doctorate holders with a disability
- The proportion of university teachers that can be designated a member of a visible minority group

## **2.2 Service Structure**

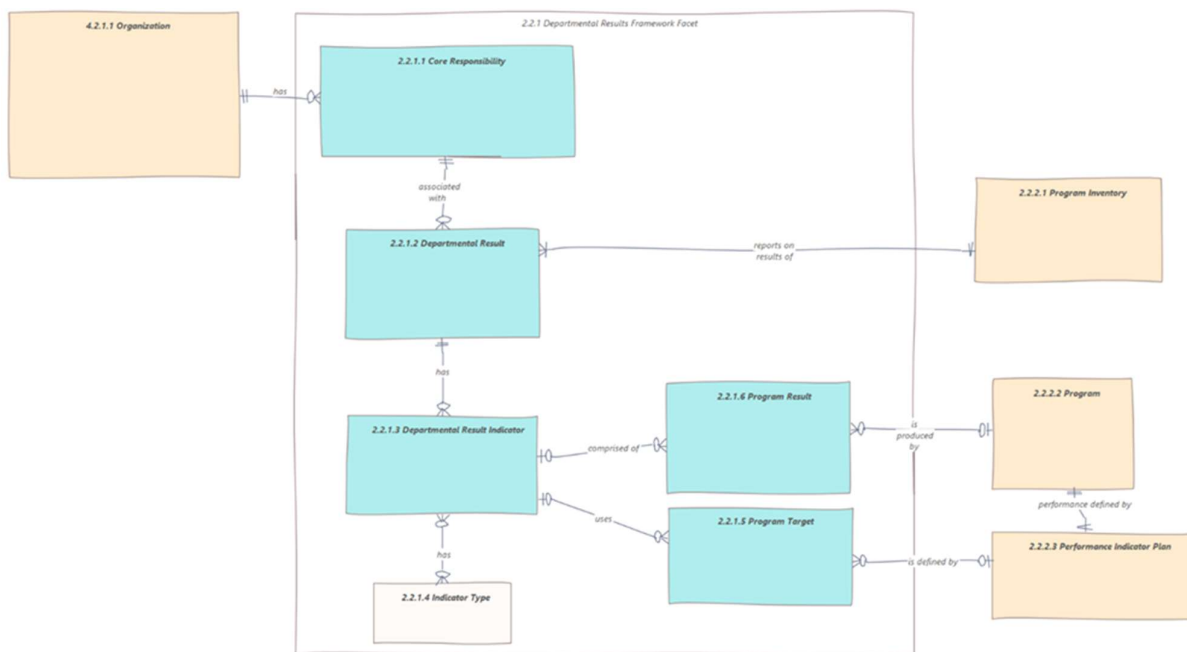
This Subject defines the data related to Service Structures including the Departmental Results Framework and Programs.

### **2.2.1 Departmental Results Framework**

Defines the department's [results framework](#) based on the TBS definition: Core Responsibilities, Departmental Results and Departmental Result Indicators.

**Note:**

[https://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#orgs/gov/gov/infograph/results/-.--\(panel key.-.-'gov drr\)](https://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html#orgs/gov/gov/infograph/results/-.--(panel%20key.-.-'gov%20drr))



**2.2.1 Departmental Results Framework - Simplified**

### **2.2.1.1 Core Responsibility**

Defines an enduring function or role performed by a department. The intentions of the department with respect to a Core Responsibility are reflected in one or more related Departmental Results that the department seeks to contribute to or influence.

For example:

- CIHR – Funding health research and training
- NSERC – Funding Natural Sciences and Engineering Research and Training
- SSHRC – Funding Social Sciences and Humanities Research and Training
- SSHRC – Institutional Support for the Indirect Costs of Research

### **2.2.1.2 Departmental Result**

Defines Departmental Results, which represent the changes departments seek to influence. Departmental Results are often outside departments' immediate control, but they should be influenced by Program-level outcomes.

For example, one of NSERC's departmental results is that Canada has a pool of highly skilled people in the natural sciences and engineering. Two of the indicators for that result are the number of research trainees supported and the percentage of research trainees supported gaining industrial experience.

### **2.2.1.3 Departmental Result Indicator**

Defines a factor or variable that provides a valid and reliable means to measure or describe progress on a Departmental Result.

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results. For example:

- Canada's rank among OECD nations on the citation score of natural sciences and engineering research publications
- Number of research trainees supported

#### 2.2.1.4 Indicator Type

Defines whether a particular indicator is:

- Departmental results framework indicator
- Departmental indicator
- Program indicator

#### 2.2.1.5 Program Target

Defines a planned or desired change or consequence attributable to outputs or outcomes of a Program or an Action Plan.

DRF Program outcomes may be a hierarchy of short-, medium-, or long-term, and are generally more directly influenced by departments and within their immediate control than Departmental Results. Program outcomes are found at the Program level, whereas Departmental Results are found at the Core Responsibility level.

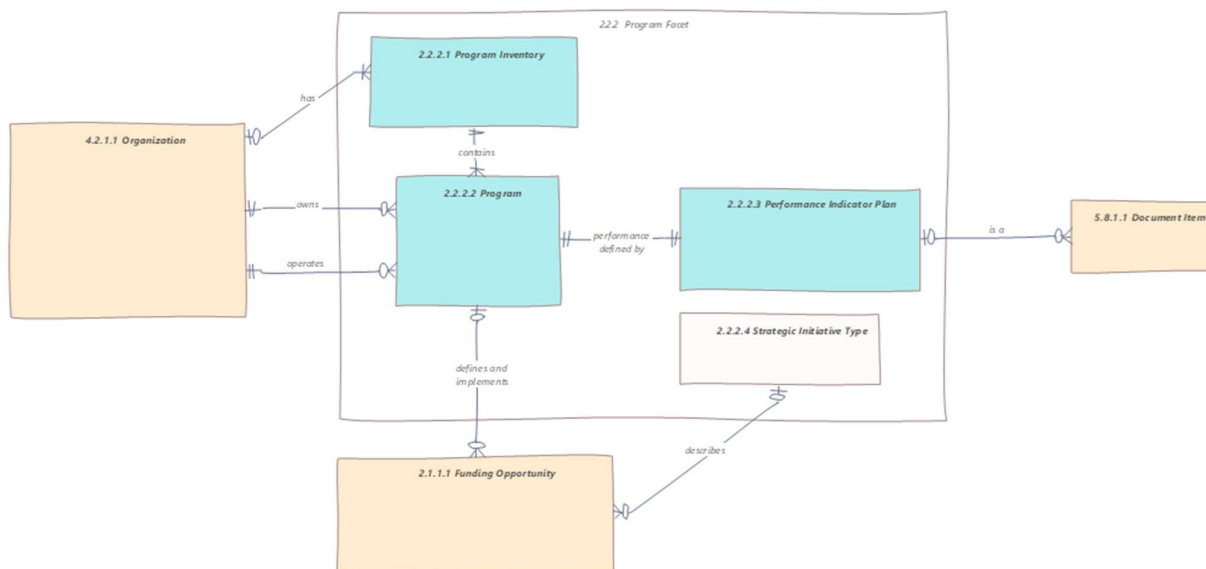
#### 2.2.1.6 Program Result

Defines the change or consequence achieved as a result of the actions of a DRF Program or an Action Plan.

Achieved outcomes are aggregated from measurements and metrics produced in the process of delivering services.

### 2.2.2 Program

Defines the Program structure, inventory and performance indicator plans



**2.2.2 Program - Simplified**

#### 2.2.2.1 Program Inventory

Identifies all of the department's programs and supports the description of how resources are organized to contribute to the department's core responsibilities and results.

#### **2.2.2.2 Program**

Defines Individual or groups of services, activities or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes or service levels.

Each Program defines a specific area of Canada's investments in fundamental and applied research and training. For example, NSERC's Programs for 2020-2021 include:

- Discovery Research
- Research Training and Talent Development
- Research Partnerships

#### **2.2.2.3 Performance Indicator Plan**

Defines the plan through which Programs will be measured to demonstrate their ability to deliver key performance indicators.

#### **2.2.2.4 Strategic Initiative Type**

Defines the different strategic areas of research that have been targeted for funding purposes, for example:

- Research in ELSI
- Osteoarthritis
- An Opportunity for New Researchers in Aboriginal Health
- Alzheimer Society of Canada
- Focus on Stroke
- New Frontiers Program
- Invention, Tools & Techniques
- Novel Population Genetics
- Clinical Investigation
- Access for Marginalized Groups

**Note:** the concept of a strategic initiatives derives from the CIHR finance coding requirements.



### ***3.1.1.2 Service Request Type***

List of values to describe types of service requests, for example:

- funding request
- appeal (to a decision)
- amendment (to funding)
- institutional eligibility

### ***3.1.1.3 SR Person Role***

Describes the role a person takes in a service request

### ***3.1.1.4 SR Person Role Type***

Defines the possible roles a person can play in a service request, for example:

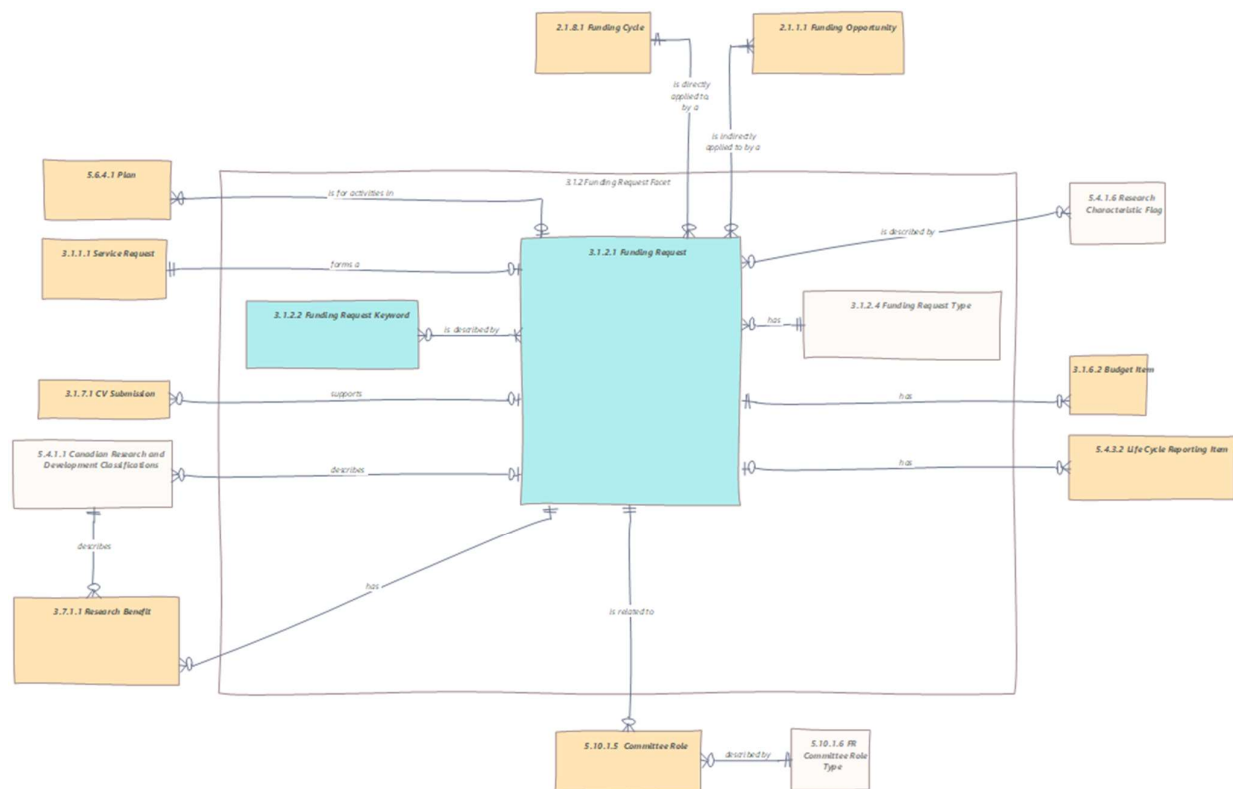
- nominated principal applicant
- principal applicant
- co-applicant
- collaborator
- supervisor
- appeal advisor
- administrator
- agency staff
- external reviewer
- research administrator

### ***3.1.1.5 SR Org Role***

Describes the role an organization takes in a service request

## **3.1.2 Funding Request**

This Facet defines the data related to applications for funding.



**3.1.2 Funding Request - Simplified**

### 3.1.2.1 Funding Request

A request for funding in support of research, knowledge translation or training. This entity will capture core data related to the Funding Request.

### 3.1.2.2 Funding Request Keyword

Keywords to describe a funding request

### 3.1.2.4 Funding Request Type

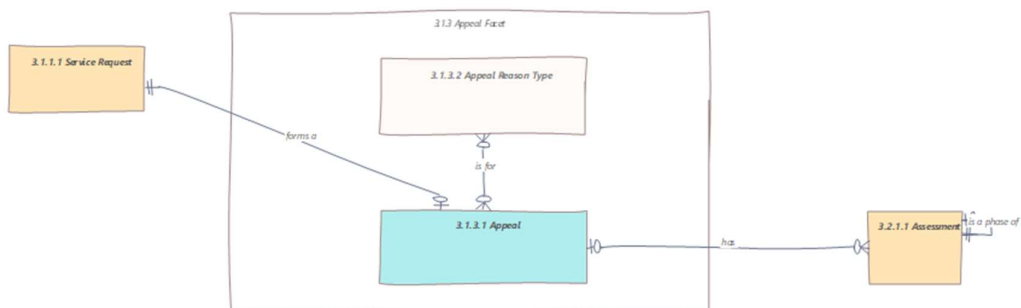
Specifies if the funding request is for the benefit of an Institution or an Individual.

Institutional grants include Research Support Fund (RSF), Canada Research Chairs (CRC), SSHRC Institutional Grants (SIG), etc. Payments are to the institution for the benefit of the institution as opposed to a researcher at the institution.

## 3.1.3 Appeal

This Facet defines the data related to requests that appeal funding decisions.

NOTE: This may correspond to the CIHR 'Complaint'.



### 3.1.3 Appeal - Simplified

#### 3.1.3.1 Appeal

A request to appeal a decision. The decision could be related to funding requests, institutional eligibility requests, appeals, etc.

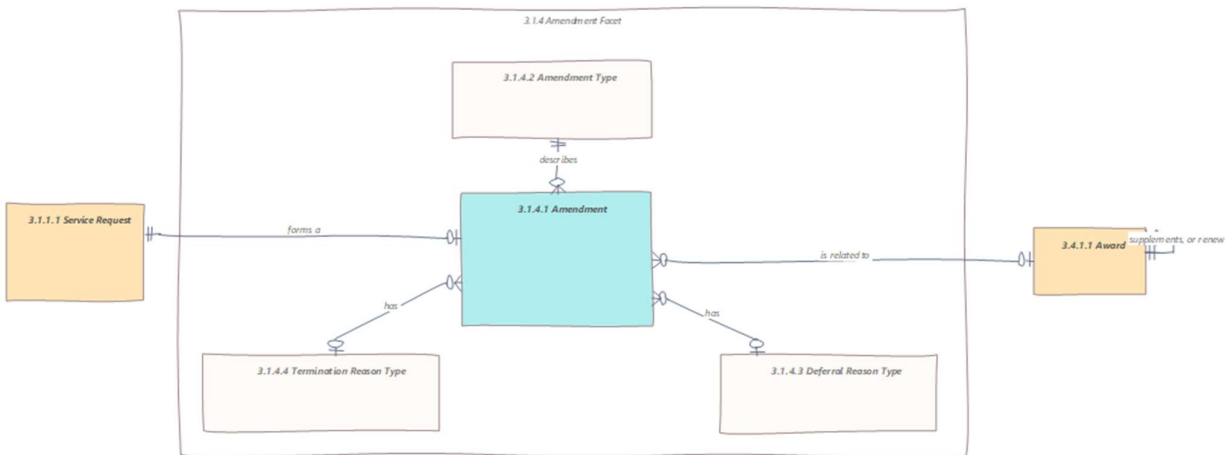
#### 3.1.3.2 Appeal Reason Type

List of values to describe the types of reasons for an appeal for example:

- Mistake
- Undisclosed Conflict of Interest
- Factual Error
- Applicant Status incorrect (ER/ECR)
- Message to applicant error
- System error (i.e., missing application documents)
- Discriminatory comments in message to applicant

### 3.1.4 Amendment

This Facet defines the data related to requests for amendments to funding.



### 3.1.4 Amendment - Simplified

#### 3.1.4.1 Amendment

A request to amend funding record.

#### 3.1.4.2 Amendment Type

List of values to describe the types of reasons for an amendment for example:

- Continuing Eligibility
- Change of Participants (Applicant)
- Extension Period for Use of Funds Beyond a Grant Period
- Deferral of Installment



- Termination of a Grant
- Relocation of a Grantee to an Eligible Canadian Institution
- Maternity, Parental, Medical, Family Medical Leave for Grantees
- Paid Maternity and Parental Leave for Students and Postdoctoral Fellows
- Sabbatical or Research Leave
- Degree Completion (if it was a pre-condition to activate a subsequent award)

#### **3.1.4.3 Deferral Reason Type**

Lists the possible reasons for an amendment to defer the start date of funding, for example:

- Parental
- Medical
- Family-related responsibilities
- Relocation, visa application, or academic calendar differences
- Appropriate supporting documentation submitted

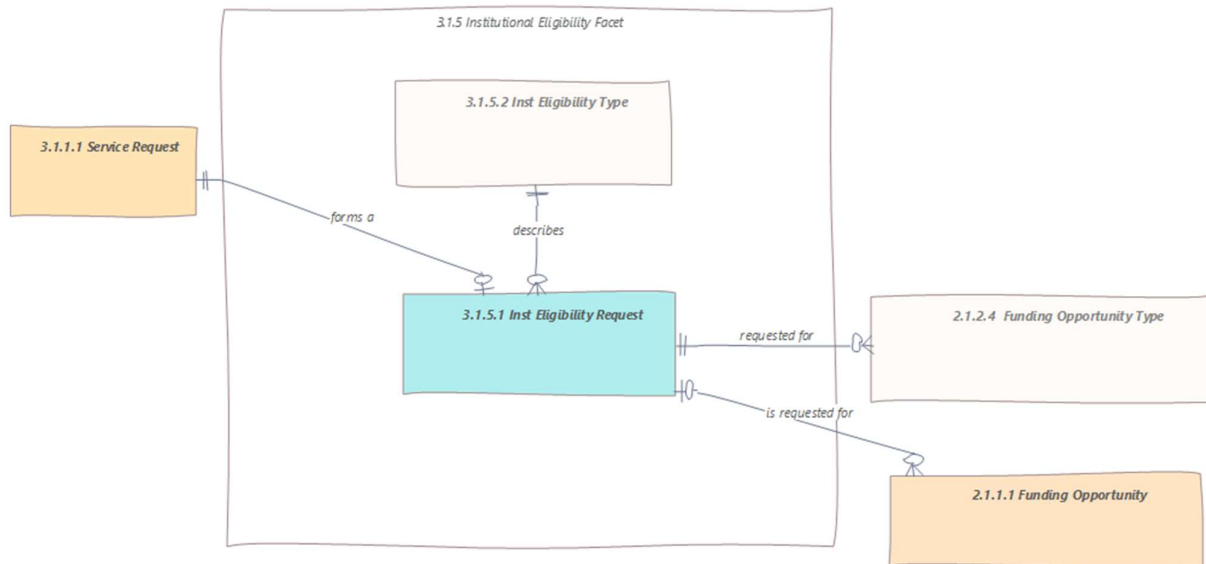
#### **3.1.4.4 Termination Reason Type**

Lists the possible reasons for terminating a grant/award, for example:

- Declined award – Without a phase-out
- Did not return after first year leave – Without a phase out
- Leaving country – 3-6 month phase-out
- Leaving university sector – 3-6 month phase-out
- Retiring – 3-6 month phase-out
- Voluntary – 3-6 month phase-out
- Successful completion of degree requirements
- Withdrawal from the doctoral degree program
- Employment
- Missing reports/forms
- Other (specify)

#### **3.1.5 Institutional Eligibility Request**

This Facet defines the data related to Institutional Eligibility Requests.



**3.1.5 Institutional Eligibility Request - Simplified**

### 3.1.5.1 Inst Eligibility Request

A request to become an eligible institution for one or more of the agencies.

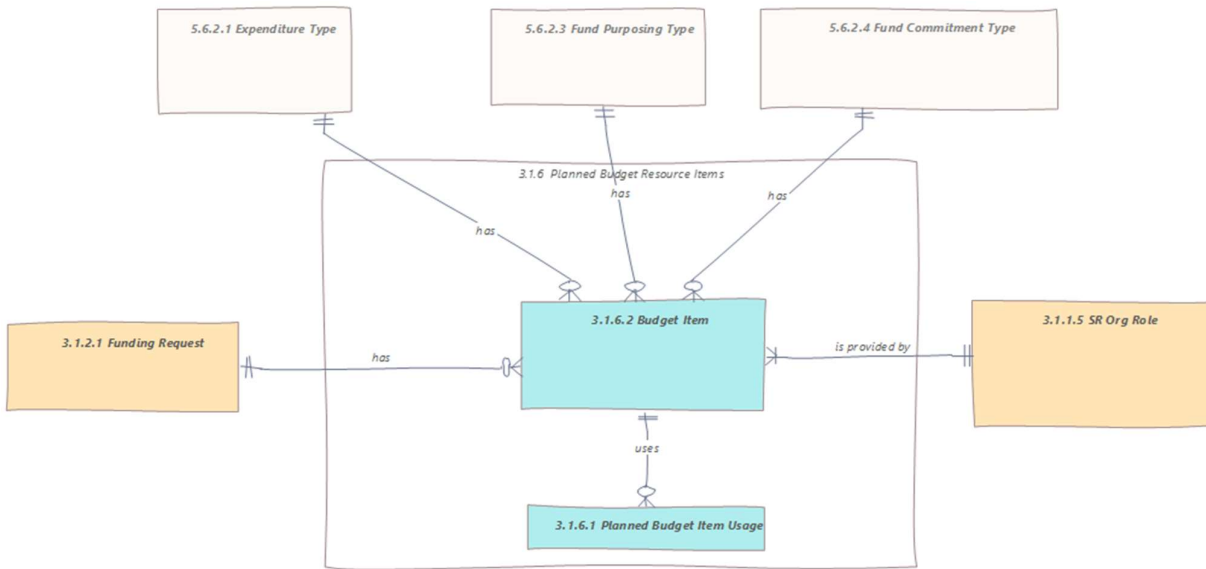
### 3.1.5.2 Inst Eligibility Type

Specification of the applicable eligibility type the Applicant Institution is applying for. For example:

- Full eligibility
- Provisional institutional eligibility (SSHRC specific)
- Restricted institutional eligibility (SSHRC specific)
- Indigenous (SSHRC specific)
- Affiliated University Research Centres (NSERC)

### 3.1.6 Planned Budget Resource Items

This Facet defines the data related to planned budget resource items.



**3.1.6 Planned Budget Resource Items - Simplified**

#### 3.1.6.1 Planned Budget Item Usage

Describes the applicant-defined overall planned resource usage by funding year for a funding request.

#### 3.1.6.2 Budget Item

Describes a particular resource item requested as part of a funding request, for example:

- Research Staff
- Trainees
- Consumables
- Technicians
- Reagents
- Computing Resources

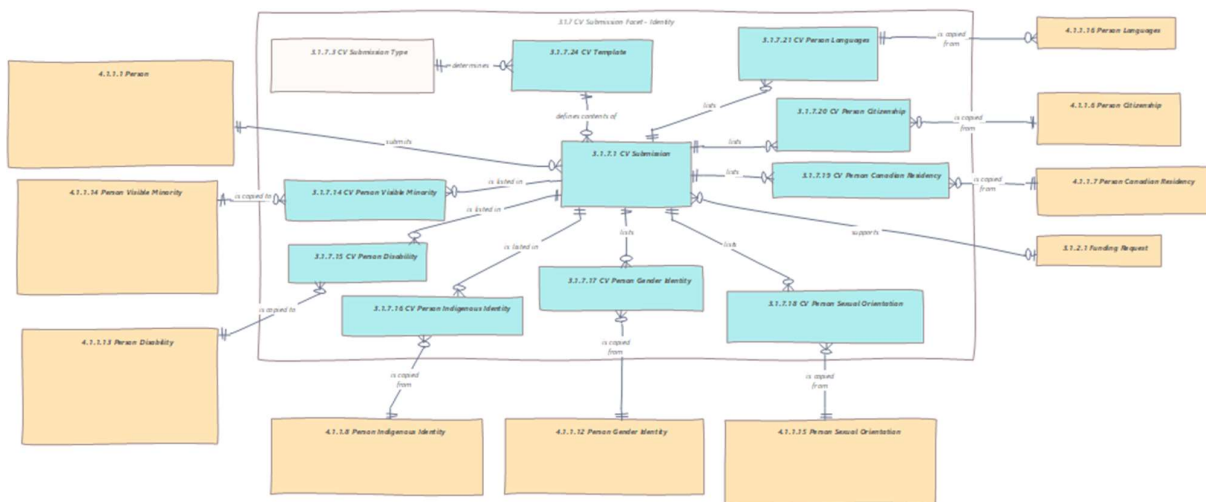
#### 3.1.7 CV Submission

This Facet defines the data related to a CV Submission.

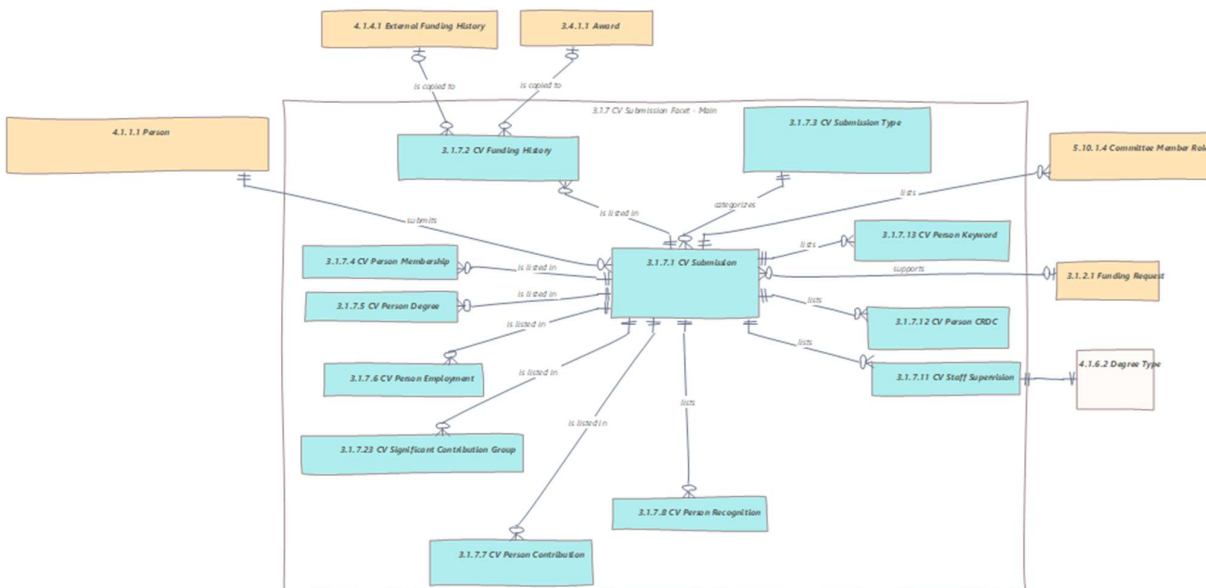
A CV Submission provides a snapshot of a person's research career, interests, experience and specialization; as well as provides generic information related to the individual.

CV Submission data is owned exclusively by the applicant (person), and cannot be viewed or used by tri-agency staff until it has been submitted by the person.

CV Submission information may be used to: assess an applicant, assist in the selection of Committee Members, determine a person's eligibility, reporting and statistical information.



### 3.1.7 CV Submission – Identity - Simplified



### 3.1.7 CV Submission – Main - Simplified

### 3.1.7.1 CV Submission

A CV Submission provides a snapshot of a PERSON's research career, interests, experience and specialization; as well as provides generic information related to the individual.

CV Submission data is owned exclusively by the applicant (Person), and cannot be viewed or used by tri-agency staff until it has been submitted by the Person.

CV Submission information may be used to: assist in the selection of Committee Members, determine a PERSON's eligibility, reporting and statistical information.

### 3.1.7.2 CV External Funding History

A CV Funding History record represents a Funding History record that has been selected for inclusion with an instance of a CV Submission.

It includes a copy of all of the attributes of the referenced funding history record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.3 CV Submission Type*

Reference table that defines the type of CV Submission, for example:

- Researcher
- Peer Reviewer
- Knowledge User
- Institute Advisory Board
- Academic
- Student
- Non-academic

### *3.1.7.4 CV Person Membership*

A CV Person Membership record represents a Person Membership record that has been selected for inclusion with an instance of a CV Submission.

It includes a copy of all of the attributes of the referenced Person Membership record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.5 CV Person Degree*

A CV Person Degree record represents a Person Degree record that has been selected for inclusion with a CV submission.

It includes a copy of all of the attributes of the referenced Person Degree record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.6 CV Person Employment*

A CV Person Employment record represents a Person Employment record that has been selected for inclusion with a CV Submission.

It includes a copy of all of the attributes of the referenced Person Employment record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.7 CV Person Contribution*

A CV Person Contribution record represents a Person Contribution record that has been selected for inclusion with a CV Submission.

It includes a copy of all of the attributes of the referenced Person Contribution record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.8 CV Person Recognition*

A CV Person Recognition record represents a Person Contribution record that has been selected for inclusion with a CV Submission.

It includes a copy of all of the attributes of the referenced Person Recognition record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.10 CV Supervisor and Mentor Relationship*

A CV Supervisor & Mentor Relationship record represents a Supervisor and Mentor Relationship record that has been selected for inclusion with a CV Submission.

It includes a copy of all of the attributes of the referenced Supervisor and Mentor Relationship record. Upon submission of a CV the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.11 CV Staff Supervision*

CV Staff Supervision captures metrics on the training of highly qualified personnel (HQP) including those supervised or co-supervised currently and over the past six years at various levels (e.g. Undergraduate, Master's, Postdoctoral, etc.)

#### *3.1.7.12 CV Person CRDC*

A CV Person CRDC (Canadian Research and Development Classification) record represents a Person CRDC record that has been selected for inclusion with a CV Submission.

It includes a copy of all of the attributes of the referenced Person CRDC record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.13 CV Person Keyword*

A CV Person Keyword record represents a Person Keyword record that has been selected for inclusion with an instance of a CV Submission. It includes a copy of all of the attributes of the referenced Person Keyword record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.14 CV Person Visible Minority*

A CV Person Visible Minority record represents a Person Visible Minority record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Visible Minority record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.15 CV Person Disability*

A CV Person Disability record represents a Person Disability record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Disability record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.16 CV Person Indigenous Identity*

A CV Person Indigenous record represents a Person Indigenous record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Indigenous record. Upon submission of a CV Submission, the copied data is archived for historical purposes and cannot be changed.

#### *3.1.7.17 CV Person Gender Identity*

A CV Person Gender record represents a Person Gender record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Gender record. Upon submission of a CV Submission, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.18 CV Person Sexual Orientation*

A CV Person Sexual Orientation record represents a Person Sexual Orientation record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Sexual Orientation record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.19 CV Person Canadian Residency*

A CV Person Canadian Residency record represents a Person Canadian Residency record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Canadian Residency record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.20 CV Person Citizenship*

A CV Person Canadian Citizenship record represents a Person Canadian Citizenship record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Canadian Citizenship record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.21 CV Person Languages*

A CV Person Languages record represents a Person Languages record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced Person Languages record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.22 CV External Funding Source*

A CV External Funding Source record represents an External Funding Source record is related to a Bio External Funding History record that has been selected for inclusion with a CV Submission. It includes a copy of all of the attributes of the referenced External Funding Source record. Upon submission of a CV, the copied data is archived for historical purposes and cannot be changed.

### *3.1.7.23 CV Significant Contribution Group*

Defines a group of contributions that the Person's has identified as **significant** to research and/or to practical applications, in terms of influence on the direction of thought and activity in the target community.

### *3.1.7.24 CV Template*

Defines the contents of a CV, based on the Activity Type role for which the Person creates the CV.

## *3.2 Assessment*

This Subject defines the data related to the Assessment of Service Requests, and the recommendations that were solicited and received for each Service Request.

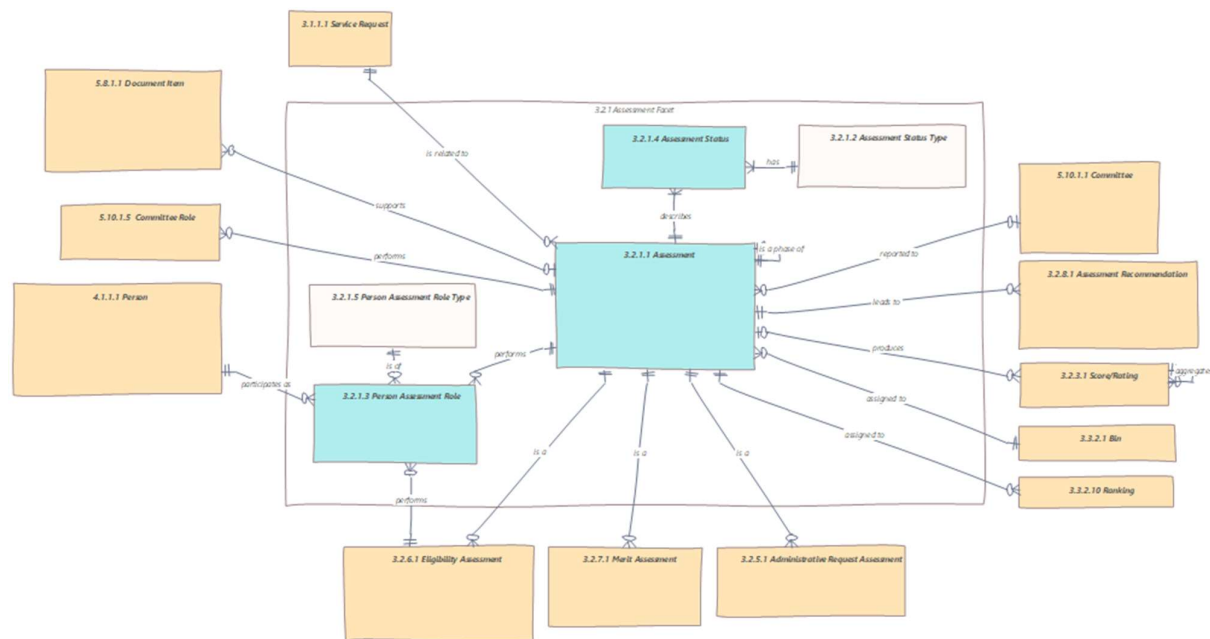
### *3.2.1 Assessment*

This Facet defines the data that the TGMS business uses to centralize and organize information relating to an assessment of a service request.

Assessments are reviews and recommendations of a Service Request, which can either be:

- a Funding Request; or

- an Administrative Request (such as an Appeal, an Amendment, or an Organizational Eligibility Request)



**3.2.1 Assessment - Simplified**

### 3.2.1.1 Assessment

Defines and centralizes information concerning reviews and recommendations that constitute an Assessment of a Service Request.

Where required by the process, this entity includes the aggregation of scores/ratings produced in each individual assessment process, including the aggregated "raw" scores/ratings, as well as the aggregated "weighted" scores/ratings.

### 3.2.1.2 Assessment Status Type

Defines the status stages that apply to an assessment, for example:

- Assessment Planned
- Assessment Initiated
- Assessment Under Continuing Review
- Assessment Completed
- Assessment Canceled

### 3.2.1.3 Person Assessment Role

Describes the role a person takes in an administrative assessment that does not require a committee, or as part of multi-phase assessments that include input from agency staff.

### 3.2.1.4 Assessment Status

Defines the status of an assessment across the lifespan of the assessment process.

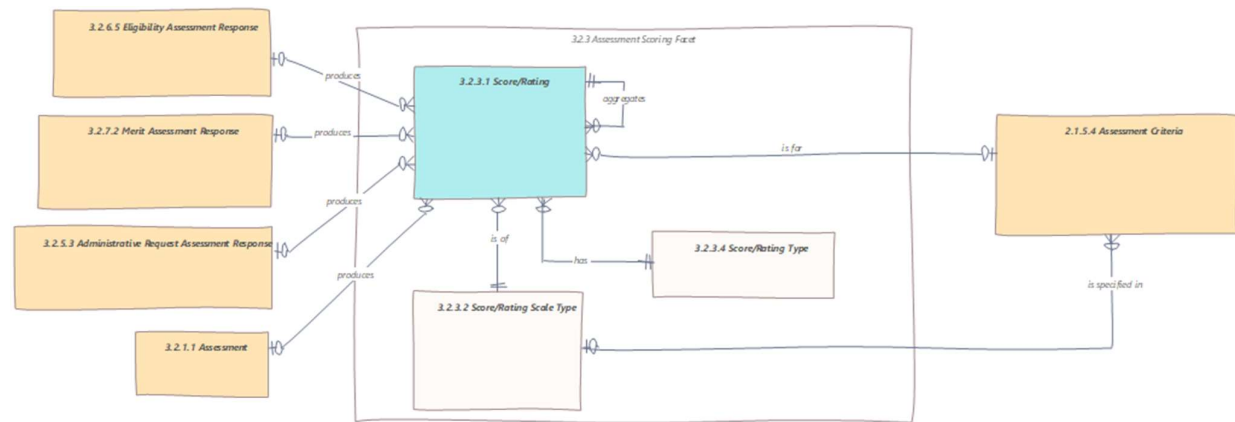


### 3.2.1.5 Person Assessment Role Type

Describes the roles a person can take in an Administrative Assessment that do not require a committee. For example:

- Review Officer (e.g., Appeals Officer)
- Approval Authority (e.g., Appeals Director)

## 3.2.3 Assessment Scoring



**3.2.3 Assessment Scoring - Simplified**

### 3.2.3.1 Score/Rating

Defines the individual assessment score provided by each reviewer for the given service request. The format and weighting of the score depends on the scoring definition provided by the Funding Opportunity.

The "Raw" score is provided by the reviewer, while the "Weighted Score" is automatically calculated based on the Score Weighting Approach.

### 3.2.3.2 Score/Rating Scale Type

Defines the format and scale of a score/rating. A score/rating can either be:

- Graded - Numeric (e.g., 1, 2, 3, 4, 5)
- Graded - Alphabetic (e.g., 'A', 'B', 'C', 'D')
- Boolean - (e.g., 'Pass' or 'Fail')

Each graded format rating/scoring scheme can have a 'Highest Value' (i.e., the best possible result) and a 'Lowest Value' (i.e., the worst possible result).

### 3.2.3.4 Score/Rating Type

Defines the type of the score/rating, for examples:

- initial score (as entered by the reviewer)
- revised score (adjusted after committee discussion)
- average score (for the assigned reviewers)
- weighted score

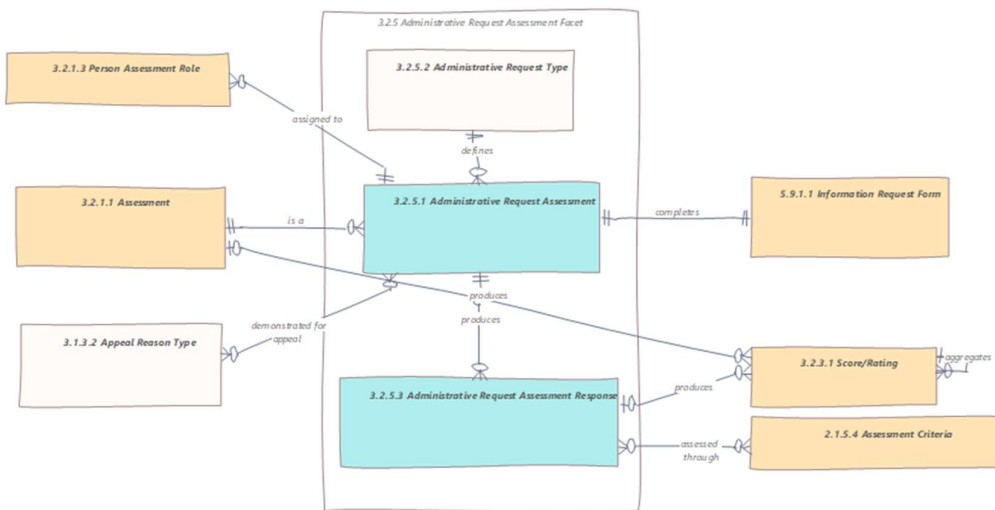
- consensus score (for the committee)
- normalized score

Transformation of a score is accomplished either through automated statistical manipulation, or through consensus agreements that result from discussion and decision-making.

### 3.2.5 Administrative Request Assessment

This facet manages information related to assessments of Service Requests that are administrative in nature. These Service Requests are:

- Appeals
- Amendments



**3.2.5 Administrative Request Assessment - Simplified**

#### 3.2.5.1 Administrative Request Assessment

Defines the assessment information that is collected and managed by the assessor of the Administrative Request, for an administrative service request.

#### 3.2.5.2 Administrative Request Type

Defines the type of administrative request is being assessed, for example:

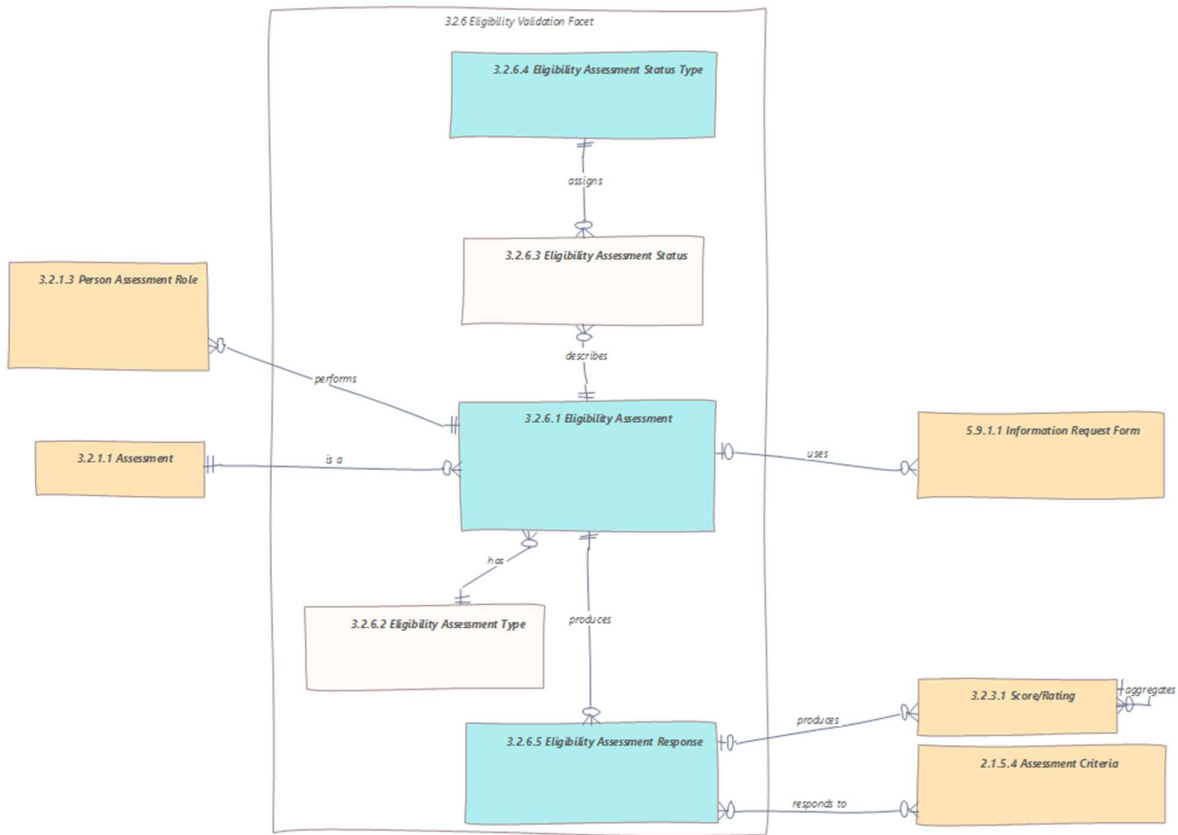
- Appeal
- Amendment

#### 3.2.5.3 Administrative Request Assessment Response

Captures the responses from the assessor for each of the assessment criteria required for this administrative request assessment.

### 3.2.6 Eligibility Validation

This facet manages data related to the assessment of the eligibility of a service request against the criteria defined (e.g., by a funding opportunity). This includes the assessment of subject matter eligibility, participant eligibility, partner organization eligibility, institutional eligibility, regulatory eligibility and funding opportunity specific eligibility.



**3.2.6 Eligibility Validation - Simplified**

### 3.2.6.1 Eligibility Assessment

Defines the data required to determine the eligibility of a service request.

### 3.2.6.2 Eligibility Assessment Type

Defines the different categories of eligibility supported by TGMS, for example:

- FO Specific Eligibility
- Regulatory Eligibility
- Amendment Eligibility
- Appeal Eligibility
- Institution Eligibility
- Partner Organization Eligibility
- Subject Matter Eligibility
- Participant Eligibility

### 3.2.6.3 Eligibility Assessment Status

Defines the status of an Eligibility Assessment.

### 3.2.6.4 Eligibility Assessment Status Type

Defines the status codes that an Eligibility Assessment can attain. Examples are:

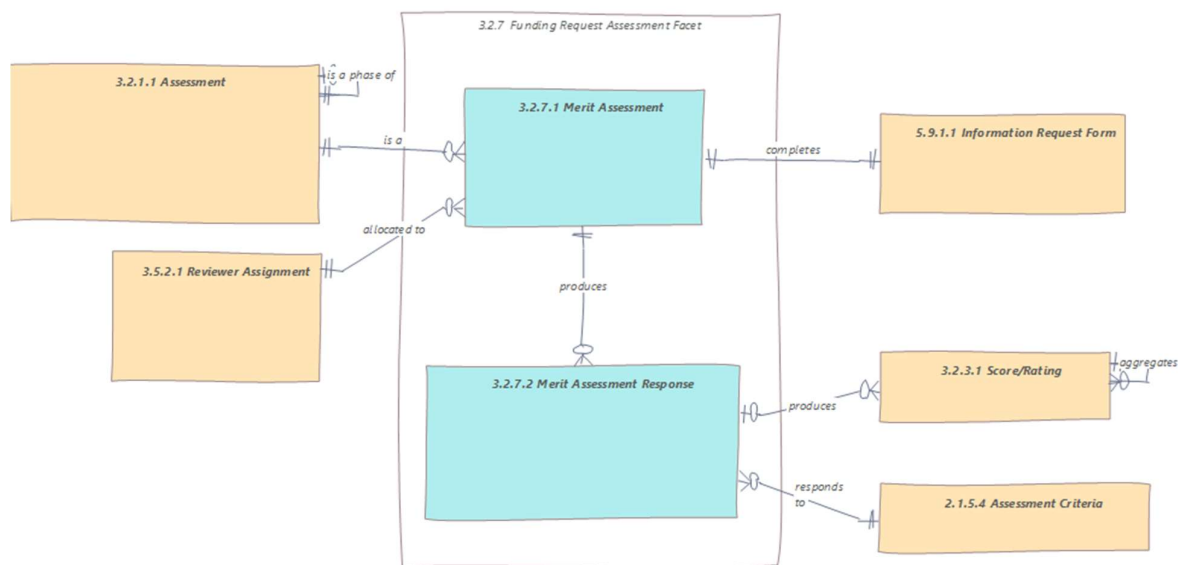
- 1st Level Review Completed
- 2nd Level Review Completed
- 3rd Level Review Completed
- 4th Level Review Completed

### 3.2.6.5 Eligibility Assessment Response

Captures the responses from the assessor for each of the assessment criteria required for this eligibility assessment.

## 3.2.7 Funding Request Assessment

This facet manages data related to the review and scoring of funding requests (a process that is also called a 'Merit Assessment'). Funding requests are assessed by reviewers, using reports and/or scores that employ various scales (i.e. numbers, pass/fail or ranking model) and weights.



**3.2.7 Funding Request Assessment - Simplified**

### 3.2.7.1 Merit Assessment

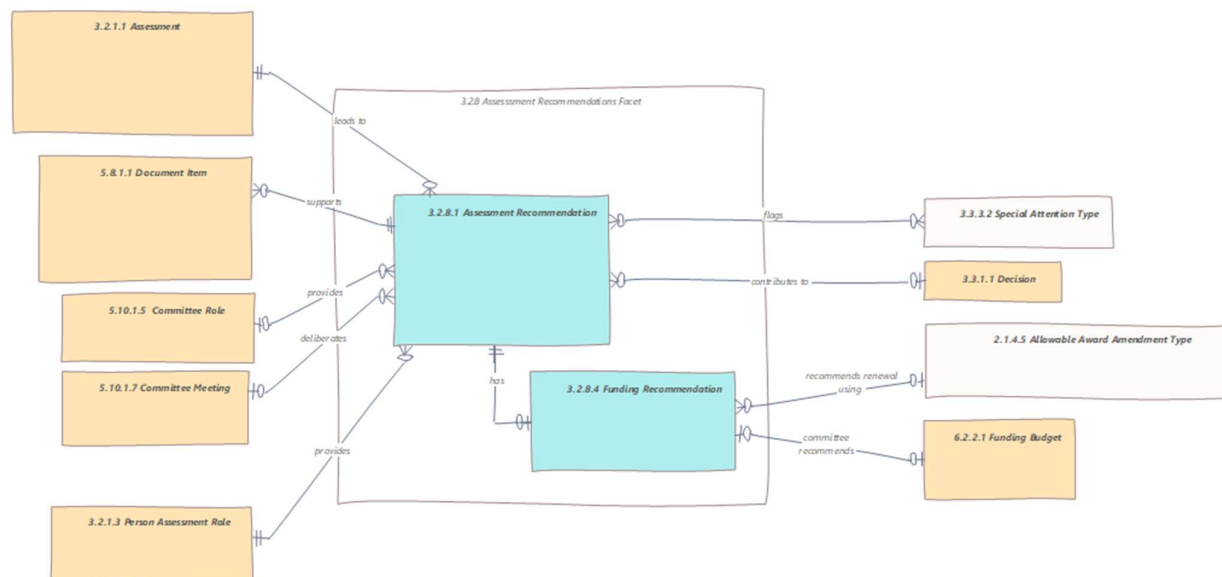
Defines the assessment information for a funding request, and determines the reviewer's merit assessment. The merit assessment is based on the requirements and demands determined by the Funding Opportunity that governs this service request.

### 3.2.7.2 Merit Assessment Response

Captures the responses from the assessor for each of the assessment criteria required for this funding assessment.

## 3.2.8 Assessment Recommendations

This facet manages the information related to the completion of a recommendation.



**3.2.8 Assessment Recommendations - Simplified**

### 3.2.8.1 Assessment Recommendation

Defines the recommendation produced as a result of an assessment. This entity represents the final recommendation, which is the result of all the assessments conducted for this service request.

The Assessment Recommendation is the recommendation that is brought forward for decision-making.

### 3.2.8.4 Funding Recommendation

Defines the recommendation for the funding of a service request that has been completed as an Assessment Recommendation.

The funding recommendation is required for any service request that has a funding implication, but is not required for service requests that do not have a funding component.

In the following examples, (this is not an exhaustive list), a Funding Recommendation will be produced:

- a funding request is recommended to award funds to a research project;
- a funding request is recommended to honor a person or organization with a monetary prize; or
- an administrative request is recommended, which amends the existing award of a research project by extending its funding by a specific amount.

In the following examples (this is not an exhaustive list), a Funding Recommendation will **not** be created:

- an administrative request (such as an Institution Eligibility recommendation) is being recommended; or
- an administrative request (such as an appeal recommendation) is being recommended.

### 3.2.8.5 Administrative Request Recommendation

Defines the recommendations produced as a result of the assessment of an administrative request.

### 3.2.8.6 Administrative Request Type

Defines the categories of administrative requests, such as:

- Appeal

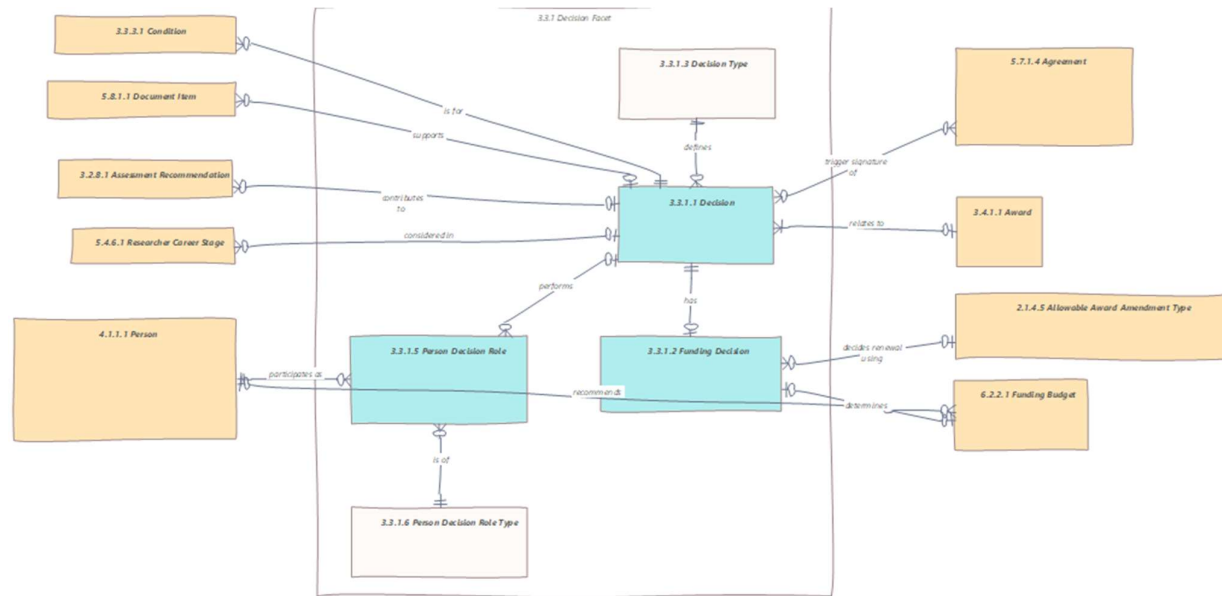
- Amendment
- Institutional Eligibility

### 3.3 Decisions

This Subject defines the data concerning Decisions about Assessments that were carried out on Service Requests.

#### 3.3.1 Decision

This facet manages data concerning the process of defining and approving a Decision related to a Service Request.



**3.3.1 Decision - Simplified**

##### 3.3.1.1 Decision

Defines the core information required in order to identify a Decision.

##### 3.3.1.2 Funding Decision

Defines the final decision on the funding of the Service Request. Included, is the definition of the awarded budget as well as a final decision on any changes to the rules for allowable award amendments.

##### 3.3.1.3 Decision Type

Describes the nature of the Decision, for example:

- Approved as recommended (also called a Pass)
- Approved with modification (also called a Pass)
- Approved with Conditions (also called a Pass)
- Not Approved (also called a Fail)

##### 3.3.1.5 Person Decision Role

Describes the role a person takes in a Decision process.

### 3.3.1.5 Status of Condition of Decision

Defines the resolution of a conditional decision.

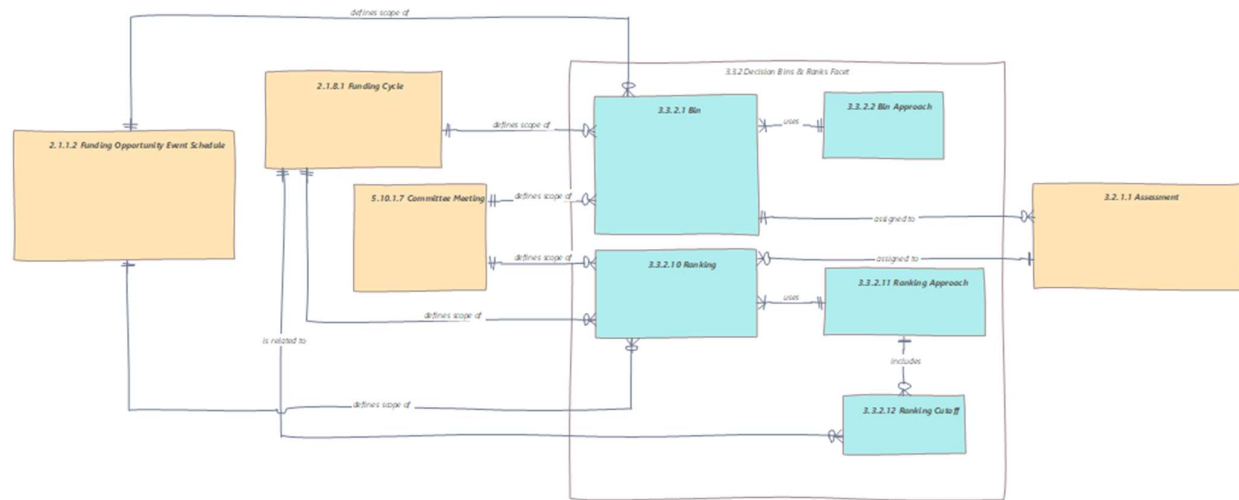
### 3.3.1.6 Person Decision Role Type

Describes the roles a person can take in the Decision process. For example:

- Approval Authority
- Approval to release information (such as Decision Documents) to the applicant or to public

## 3.3.2 Decision Bins and Ranks

This facet defines the data required in order to position a set of funding requests in 'bins' and 'ranks'.



**3.3.2 Decision Bins and Ranks - Simplified**

### 3.3.2.1 Bin

Defines a grouping of Funding Requests (i.e., a subset, within the total population of Funding Requests), which will be considered together when making a Decision.

### 3.3.2.2 Bin Approach

Defines the approach that is used to define the Bins, for example:

- segmentation based on Assessments reviewed in a particular committee meeting
- segmentation by Assessments that belong to a particular competition
- segmentation by Assessments that belong to a particular stage of review (based on the design of the Funding Opportunity's schedule)

### 3.3.2.10 Ranking

Defines the position of a given Funding Request within the list of assessed Funding Requests. A ranking is a numerical positioning of an assessed request (e.g., 1-n), based on a defined ranking approach (criterion).

### 3.3.2.11 Ranking Approach

Defines the approach that is used to define the rankings, based on available Funding Opportunity and Assessment parameters such as merit scores.

Rankings may be segmented based on:

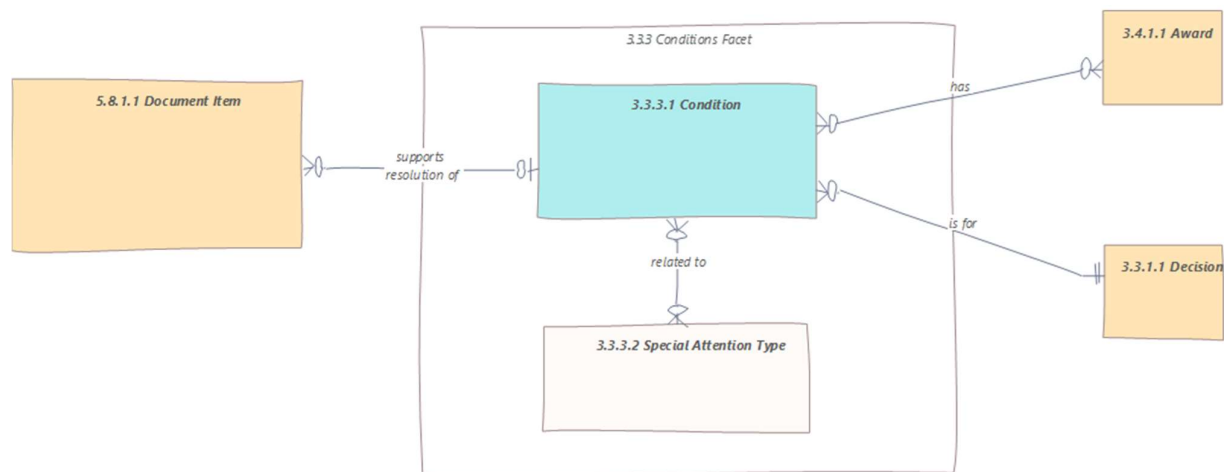
- Assessments reviewed in a particular committee meeting
- Assessments that belong to a particular competition
- Assessments that belong to a particular stage of review (based on the design of the Funding Opportunity's schedule)

### 3.3.2.12 Ranking Cutoff

A ranking cutoff determines the threshold score below which assessed funding requests are treated differently. For example, funding requests that are ranked below the cutoff may be excluded from further discussion.

## 3.3.3 Conditions

This facet manages information related to the definition and resolution of conditions that may influence decision-making or awards.



**3.3.3 Conditions - Simplified**

### 3.3.3.1 Condition

Defines conditions that were defined for such milestones as Decisions or Awards, for example:

- status report delivered within the first period
- conduct of environmental impact assessment
- resolution of issues related to section 56 of the Controlled Drugs and Substances Act

### 3.3.3.2 Special Attention Type

Defines areas which committee or internal review has identified as requiring special attention. Examples are funding requests that may contain issues such as:

- academic appointment issue
- ethics issue
- funding overlap
- stem cell research



- environmental assessment requirements
- clinical trials or randomized clinical trials
- issues related to section 56 of the Controlled Drugs and Substances Act

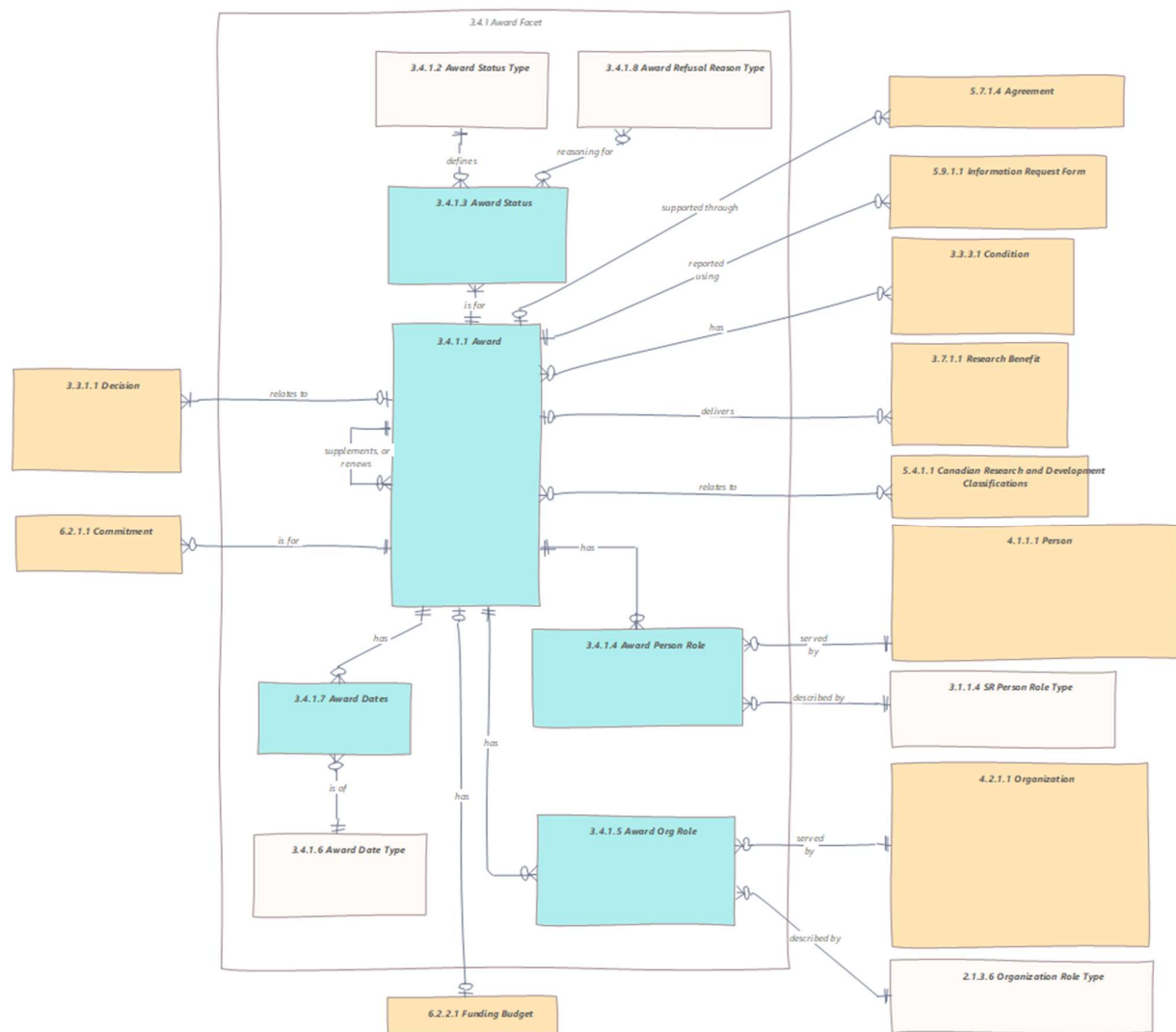
### 3.4 Awards

This Subject defines the data related to the direct support that a funding agency provides in order to promote or enable research. Awards are granted to researchers or organizations.

Awards are the end product of the assessment process, and funding decision-making process.

#### 3.4.1 Award

This Facet defines the data related to awards that the agencies have granted following the completion of the assessment process and funding decision-making process.



**3.4.1 Award - Simplified**

##### 3.4.1.1 Award

An Award is provided as the result of an approved funding request.

#### *3.4.1.2 Award Status Type*

Defines the possible states that an award can attain, for example:

- Canceled or Terminated
- Offered
- Offered Conditionally
- Declined
- Accepted
- Deferred
- Active

Similar states may be:

- Active (Awarded)
- Active Transferred (Awarded)
- Rejected (Not Awarded)
- Not Awarded
- Under Evaluation (Not Awarded)
- Withdrawn

#### *3.4.1.3 Award Status*

Defines the history of states for a given award.

#### *3.4.1.4 Award Person Role*

Describes the role a person plays following Award.

#### *3.4.1.5 Award Org Role*

Describes the role an organization takes following award.

#### *3.4.1.6 Award Date Type*

Defines the categories of critical dates that can be assigned to an Award, such as:

- Start (Effective) Date
- End (Expiry) Date
- Authority to Use Funds Start Date
- Authority to Use Funds End Date
- Eligible for Renewal Date
- Progress Report Due Date
- Final Report Due Date

### 3.4.1.7 Award Dates

Defines the different critical dates that have been assigned for an Award.

### 3.4.1.8 Award Refusal Reason Type

Defines the reasons that an applicant has chosen to decline an Award, for example:

- will accept another award
- cannot fulfill conditions of this award
- will enter/return to clinical practice
- will enter/return to clinical training
- will take up family related responsibilities

## 3.5 Reviewers

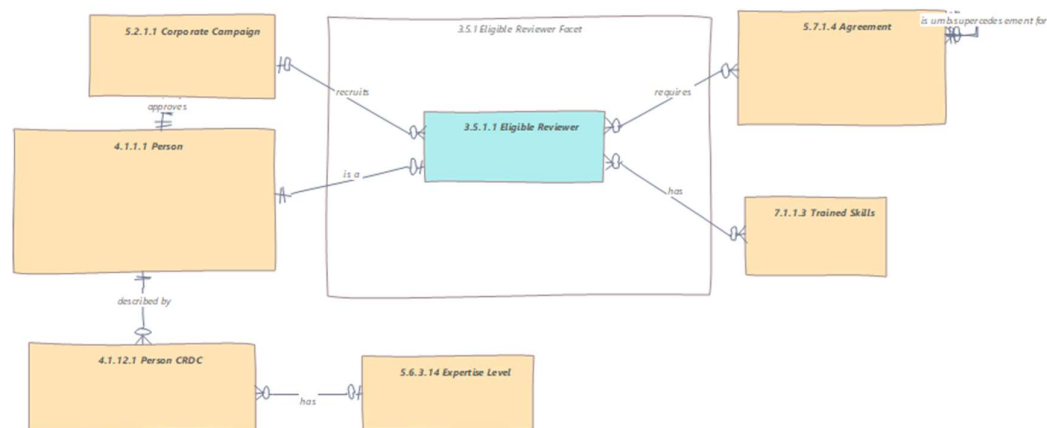
This Subject defines the data required to manage those resources who act as Reviewers in the Assessment processes.

This information, in conjunction with information managed in the Person Subject, represents what is required in order to operate a *College of Reviewers*.

### 3.5.1 Eligible Reviewer

This facet manages the data required to:

- identify and recruit new reviewers (i.e., take candidate reviewers and bind them (through legal agreements) to become recognized reviewers;
- understand and manage the expertise areas of reviewers; and
- understand the TGMS review skills that each reviewer has achieved, and support the training of reviewers to the required TGMS skillset



**3.5.1 Eligible Reviewer - Simplified**

#### 3.5.1.1 Eligible Reviewer

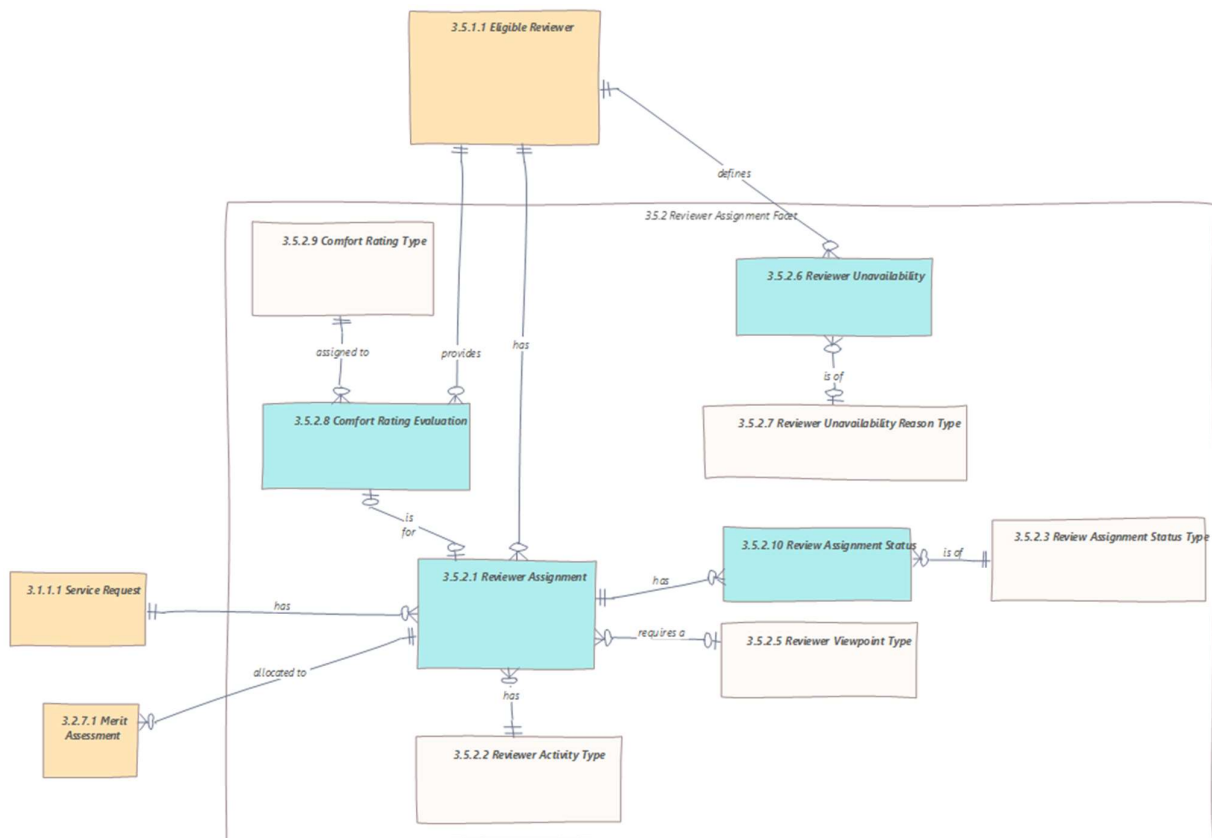
Defines the list of People who have been selected to be reviewers who can assess service requests. Recognized reviewers must have signed the agreements that the agencies require, and their recruitment date reflects the date at which such agreements were signed.

This includes reviewers who are 'External Reviewers' or 'External Referees' who are not committee members, and who may only be brought in for special cases.

### 3.5.2 Reviewer Assignment

This facet manages information related to selecting candidate reviewers from the pool of available recognized reviewers, and matching them to service requests:

- who was invited to assess a service request
- what Comfort Assessments were conducted in order to match the requests to a reviewer's ability to assess it
- scheduling availability of reviewers to assess a service request
- assigning a service request to one or more reviewers



### 3.5.2 Reviewer Assignment - Simplified

### 3.5.2.1 Reviewer Assignment

Defines the assignment of a reviewer to a particular service request, and manages information related to scheduling the review activity.

#### 3.5.2.10 Review Assignment Status

Defines the Reviewer Assignment status and the dates at which the status was applicable.

### *3.5.2.2 Reviewer Activity Type*

Defines the types of roles that an assessor can play in a funding assessment. For example:

- external reviewer - read the application, participate in the discussion, and score the application
- internal reviewer - read the application, participate in the discussion, and score the application
- reader - read the application and participate in the discussion, but do not score the application
- scientific officer notes - facilitate the review application, but does not score the application
- training reviewer - participate in the peer review process, but whose assessments will not be taken into consideration for the final evaluation of funding

### *3.5.2.3 Review Assignment Status Type*

Defines the status of a review assignment, for example:

- Invitation Sent
- Invitation Accepted
- Invitation Declined
- Invitation Resent

NOTE: should probably include a status for "Review Scheduled" to indicate that this reviewer is now committed to this review

### *3.5.2.4 Reviewer Assignment Type*

Defines the type of the reviewer in reviewing a service request, for example:

- reviewer 1 or reviewer A
- reviewer 2 or reviewer B

### *3.5.2.5 Reviewer Viewpoint Type*

Defines the viewpoints or perspectives that a reviewer will use in the current review assigned request, for example:

#### **Researcher**

- Academic Researcher
- Non-Academic Researcher
- Clinical Scientist
- Biostatistician
- Other

#### **Knowledge-User**

- Health Care Practitioner
- Health Care Administrator
- Commercialization
- Policy Maker

- Other

#### **Citizen**

- General Public
- Patient
- Patient Advocate
- Family/Caregiver
- Other

#### **Administrative**

- Grants Officer

#### *3.5.2.6 Reviewer Unavailability*

Defines periods in time when the reviewer has determined that they will not be available for TGMS review activities.

#### *3.5.2.7 Reviewer Unavailability Reason Type*

Defines the reasons for which a reviewer may block off dates as being unavailable for reviews, for example:

- personal reasons (medical, vacation, etc.), such as: maternal/paternal leave, sabbaticals)
- engaged in other review activities
- engaged in professional activities that preclude concurrent review activities, such as: reviewer for another organizations; employee or executive of a funding agency; Chair and associate chair of the CIHR College of Reviewers, or Governing Council
- reviewer request to exclude (e.g., "Do Not Contact")

Note: Reviewer unavailability includes such areas that the legacy systems call 'Exclusions'. Since 'Exclusions' include sanctioned decisions (such as suspension as a result of malfeasance, etc). The Reviewer Unavailability Reason Type does not include reasons related to sanctions applied to the Person.

#### *3.5.2.8 Comfort Rating Evaluation*

Defines the comfort level that a reviewer has self-identified, and a textual description of the reviewer's considerations.

#### *3.5.2.9 Comfort Rating Type*

List of values to describe the comfort ratings from an assessor to assess a funding request. For example:

- High expertise
- Medium expertise
- Low expertise
- Conflict
- Not comfortable due to language
- Yes

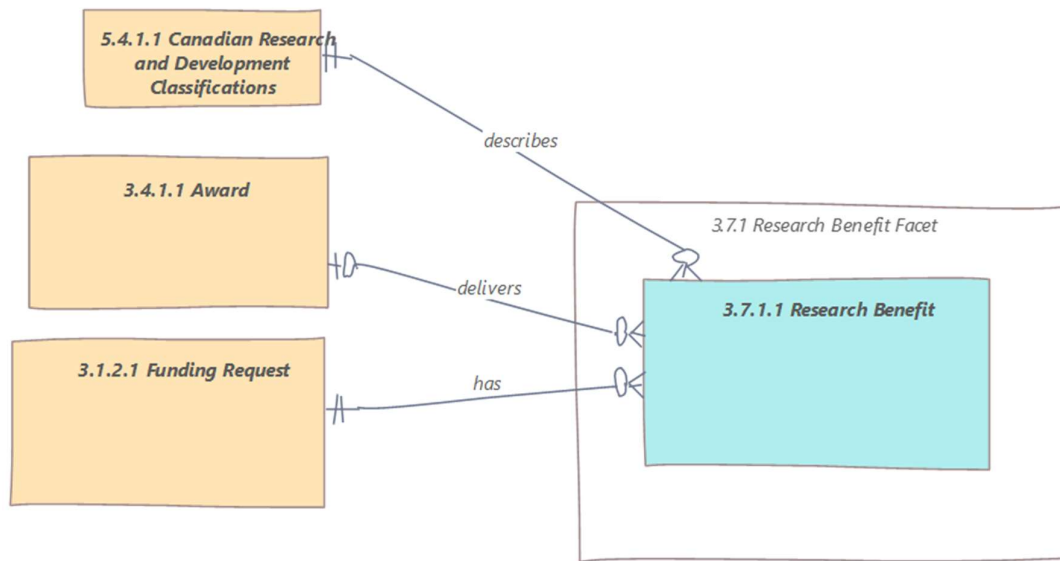
- No

### 3.7 Performance Measurement

This Subject defines data required to measure the performance and accountability of funding opportunities and their attendant service requests, assessments, decisions and awards.

#### 3.7.1 Research Benefits

This facet describes the information required in order to define the benefits delivered by funded research projects.



**3.7.1 Research Benefits - Simplified**

##### 3.7.1.1 Research Benefit

Expected benefits that could emerge from a research project.

### 3.8 Allegations

This Subject defines the data related to allegations of improper activity, their investigation, and their consequences.

Allegations and their response are based on the Tri-Agency Framework: Responsible Conduct of Research (RCR). This framework sets out the responsibilities and corresponding policies for researchers, institutions, and the Agencies, that together help support and promote a positive research environment.

For researchers, it specifies the responsibilities with respect to:

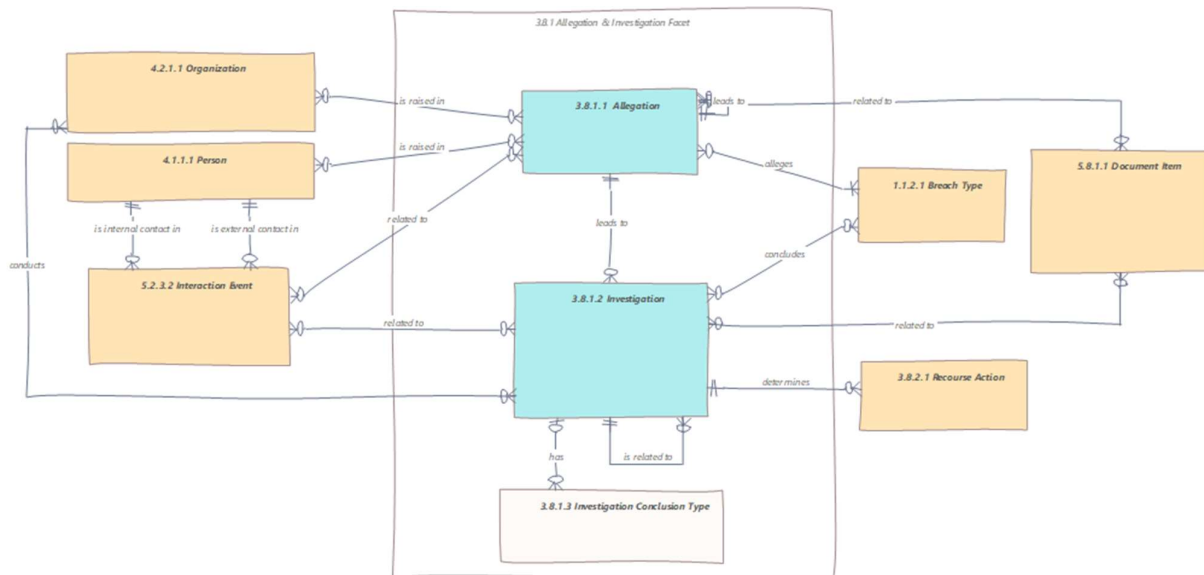
- research integrity,
- applying for funding,
- financial management,
- requirements for conducting certain types of research, and
- defines what constitutes a breach of Agency policies.

For institutions (Organizations) it details:

- the minimum requirements for institutional policies for addressing allegations of all types of policy breaches, and
- institutions' responsibilities for promoting responsible conduct of research and reporting to the Agencies.

### 3.8.1 Allegation and Investigation

This facet manages data related to the raising of allegations of improper activity, and the ensuing investigation of each allegation.



**3.8.1 Allegation & Investigation - Simplified**

#### 3.8.1.1 Allegation

Defines a declaration, statement, or assertion communicated in writing to an institution or Agency to the effect that there has been, or continues to be, a breach of one or more agency policies. The validity of an allegation is not established until after an investigation has been conducted.

#### 3.8.1.2 Investigation

Defines the information collected in the process of examining an allegation, and concluding an investigative decision.

An inquiry by the institution is considered a form of preliminary investigation.

#### 3.8.1.3 Investigation Conclusion Type

Defines the categories of decisions/conclusions that an investigation may generate:

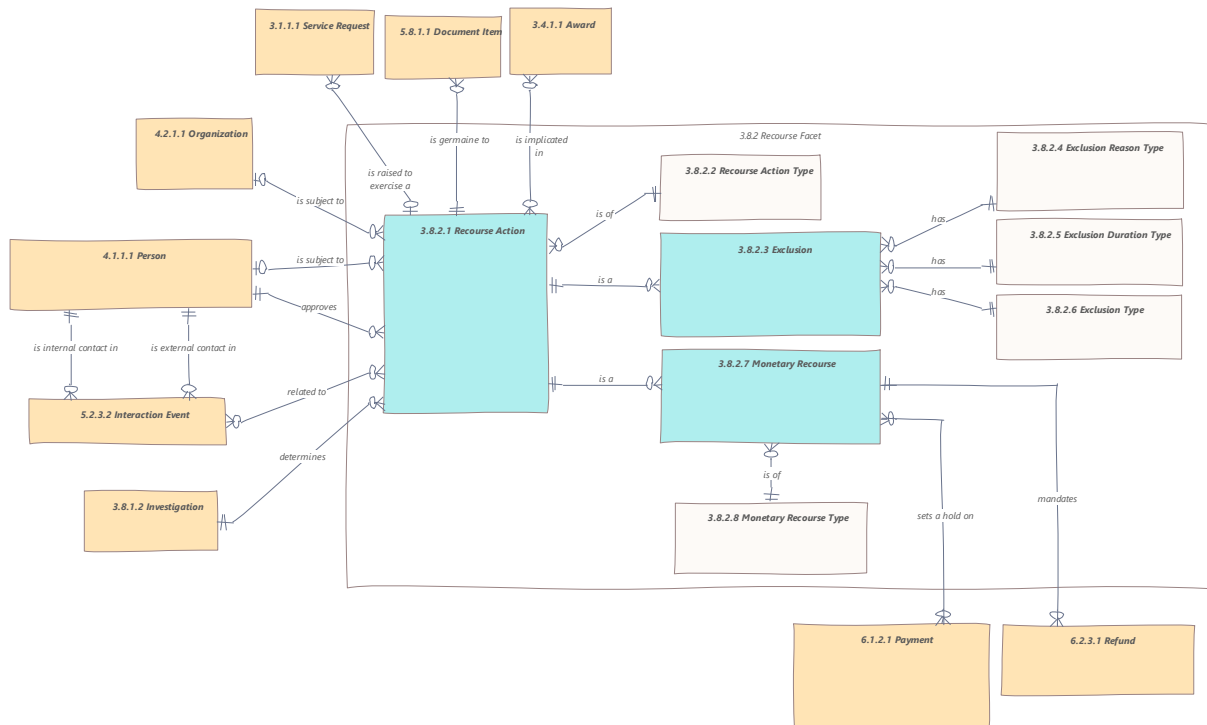
- a Breach of policy occurred with recourse
- a Breach of policy occurred with no recourse
- no Breach of policy occurred
- Inconclusive



### 3.8.2 Recourse

This facet manages the information required in order to define what constitutes a recourse action, and to exercise a recourse in response to a breach of an Agency Policy.

If the Agency determines that there has been a breach of an Agency policy, it will exercise the recourse it considers appropriate, commensurate with the severity of the breach. A recourse is exercised based on the findings of an investigation into allegations.



**3.8.2 Recourse - Simplified**

#### 3.8.2.1 Recourse Action

Defines the measures that the Tri-Agency exercises on researchers and institutions in response to:

- an investigation of an allegation of a breach of policy (i.e., an investigation is underway, during which time a recourse action may have been exercised);
- a confirmed breach of policy (i.e., an investigation has concluded that a breach of policy occurred).

#### 3.8.2.2 Recourse Action Type

Defines the categories of recourse that the agencies may exercise as a result of a breach. For example, the RCR Framework (2016) defines the following recourse action types (see section 6.1.3):

- issuing a letter of concern to the researcher;
- requesting that the researcher correct the research record and provide proof that the research record has been corrected;
- advising the researcher that the Agency will not accept applications for future funding from him/her for a defined time period or indefinitely (i.e., Exclusion);
- terminating remaining installments of the grant or award;
- seeking a refund within a defined time frame of all or part of the funds already paid;

- advising the researcher that the Agency will not consider him/her to serve on agency committees (e.g., peer review, advisory boards) (i.e., Exclusion);
- such other recourse available by law; and/or
- review or compliance audit - The funding agency may conduct its own review or compliance audit, or require the institution to conduct an independent review/audit (Section 6.1.5).

Other documented recourse actions include:

- declare partner organization ineligible;
- hold payment; and/or
- declare individual ineligible to hold funds.

### *3.8.2.3 Exclusion*

Defines a constraint placed on a person or organization, as a result of the initiation or the findings of an investigation into allegations of a policy breach.

### *3.8.2.4 Exclusion Reason Type*

Defines the reasons for establishing the Exclusion. Reasons for exclusions may be related to issues such as:

- Initiation of an investigation into an allegation;
- Investigative conclusion of a violation of Responsible Conduct of Research (as defined by the Tri-agency Secretariat on Responsible Conduct of Research);
- Investigative conclusion of a violation of the terms and conditions of the Award (e.g., financial management problems); and
- Investigative conclusion of a violation related to other areas,

### *3.8.2.5 Exclusion Duration Type*

Defines the Exclusion action in terms of the duration, for example:

- Permanent Exclusion
- Temporary Exclusion

### *3.8.2.6 Exclusion Type*

Defines the categories of Exclusion actions that can be defined for a person or organization. Examples are:

- Funding - The person or organization is excluded from applying for funding
- Peer Reviewing - The person or organization is excluded from peer review activities

**Note:** There are no explicit exclusion actions defined for organizations, although the RCR Framework allows for recourse against organizations who have not met their agreement (contractual) obligations. This entity is therefore generalized to support exclusions to both person or organization.

### *3.8.2.7 Monetary Recourse*

Defines a recourse action that involves a monetary consequence to a person or organization.

#### *3.8.2.8 Monetary Recourse Type*

Defines the category of monetary recourse that is being exercised. Examples are:

- hold payment, or cancel one or more installments;
- terminate the remaining installments of a grant or award; and/or
- seek a refund within a defined time frame of all or part of the funds already paid.

## 4. People and Organizations Domain

This Domain manages data that defines individuals and organizations with whom an organization has a business relationship.

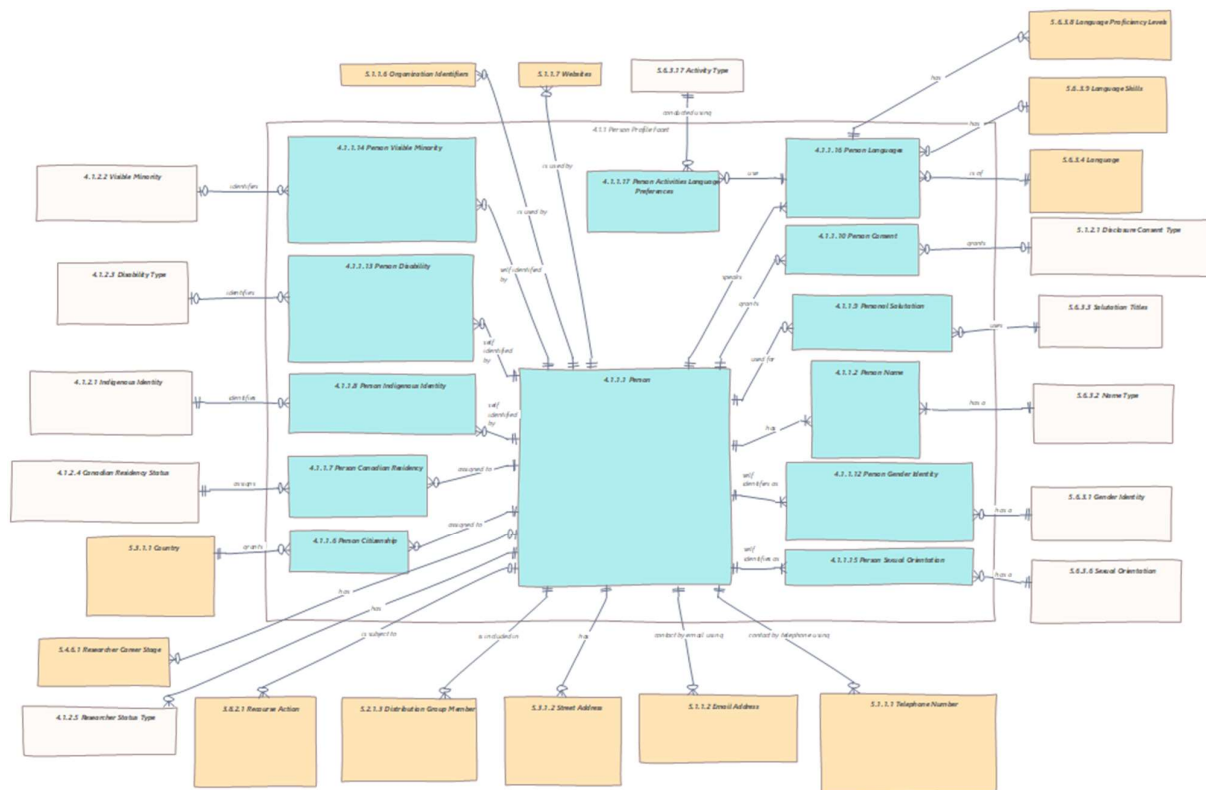
For TGMS, this Domain provides a single source of information for applicants, peer reviewers, administrators, research institutions, partners, etc. Individuals and Organizations may have multiple roles in their dealings with TGMS.

### 4.1 People

This Subject defines the data related to the individuals involved in the grants management business.

#### 4.1.1 Person Profile

This Facet defines the data that the TGMS business uses to identify people.



**4.1.1 Person Profile Facet - Simplified**

##### 4.1.1.1 Person

Defines the core data required in order to identify a person. A person represents a specific user consuming or supporting the services provided by the TGMS.

##### 4.1.1.2 Person Name

Describes the names, past and present, of a person.

##### 4.1.1.6 Person Citizenship

Maintains information regarding the citizenship of an individual.

#### *4.1.1.7 Person Canadian Residency*

Defines the Canadian residency of a person based on the dates at which the person has declared residency in Canada

#### *4.1.1.8 Person Indigenous Identity*

Defines the indigenous affiliations (indigenous identity) of a Person.

#### *4.1.1.9 Personal Salutation*

Defines the appropriate salutation to use in correspondence with a person. Persons may have a Person Salutation that uses a number of Salutation types in sequence (e.g., Doctor, Colonel John Smith, Professor, Doctor Joe Henry)

#### *4.1.1.10 Person Consent*

Defines when a person grants permission for the TGMS business to disclose person-related information. The person's permission is granted based on the specific consent categories defined by a Consent Type.

#### *4.1.1.12 Person Gender Identity*

Defines the gender with which a Person self-identified at a particular point in time.

#### *4.1.1.13 Person Disability*

Defines the disabilities that a person has self-identified as hindering their full and equal participation in society.

#### *4.1.1.14 Person Visible Minority*

Defines the Person's self-identified membership in a visible minority group.

#### *4.1.1.15 Person Sexual Orientation*

Defines the sexual orientation self-identified by a Person.

#### *4.1.1.16 Person Languages*

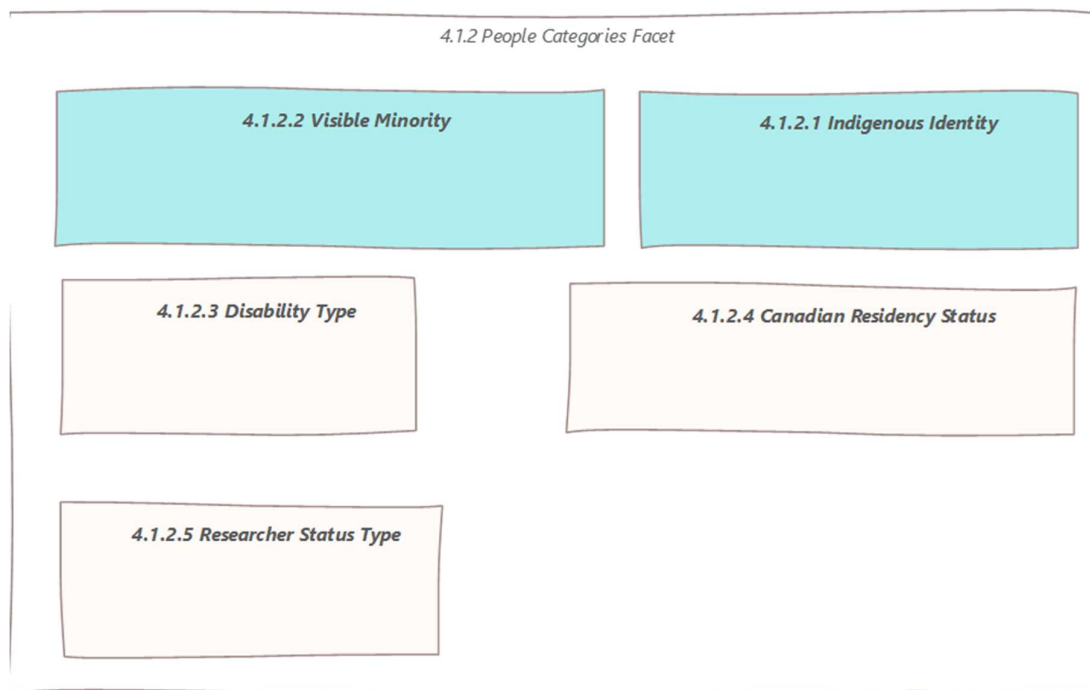
Defines the languages a person uses, their corresponding skills in each language, and identifies their preferred language.

#### *4.1.1.17 Person Activities Language Preferences*

Defines the language that a person prefers to use for TGMS-recognized activities.

### **4.1.2 People Categories**

This Facet defines the data that the TGMS business may use to categorize organizations.



**4.1.2 People Categories - Simplified**

#### **4.1.2.1 Indigenous Identity**

Defines Indigenous identity groups based on the Statistics Canada definition

(<https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=246585&CVD=246586&CPV=1&CST=15062015&CLV=1&MLV=3>) and the CRC EDI definition, which is:

- First Nations (North American Indian)
- Inuk (Inuit)
- Métis

These are the three groups defined as the Aboriginal peoples of Canada in the Constitution Act, 1982, Section 35 (2). A person may be in more than one of these three specific groups.

First Nations (North American Indian) includes Status and non-Status Indians.

CIHR chose not to recommend a standard, pending further engagement with and approval from First Nations, Inuit and Métis, out of respect for Indigenous data sovereignty. This entity may therefore be extended when such standards are later drafted. At this point in time, it is merely a way to record a self-identified indigenous affiliation in a way other than just a checkbox for "Indigenous Identity".

#### **4.1.2.2 Visible Minority**

The Employment Equity Act defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour". Visible minorities are therefore identified by Statistics Canada in their Classification of Population Group

(<https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=279330>)

The CRC EDI categories of visible minority include the following:

- Arab
- Black
- Chinese

- Filipino
- Japanese
- Korean
- Latin American
- South Asian (e.g., East Indian, Pakistani, Sri Lankan etc.)
- Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.)
- West Asian (e.g., Iranian, Afghan, etc.)
- White
- Other

#### *4.1.2.3 Disability Type*

Defines the disabilities that a Person may have (based on the Accessible Act Canada definition of a disability as "any impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment — or a functional limitation — whether permanent, temporary or episodic in nature, or evident or not, that, in interaction with a barrier, hinders a person's full and equal participation in society."

Examples of disability types defined by CRC EDI are:

- Communications
- Developmental
- Dexterity
- Flexibility
- Hearing
- Learning
- Mental health-related
- Memory
- Mobility
- Pain-related
- Seeing
- Other

#### *4.1.2.4 Canadian Residency Status*

Defines the statuses for Canadian residency, for example:

- Canadian citizen
- Permanent Resident
- Non-Resident

Under the Canadian income tax system, an individual's liability for income tax is based on his or her status as a resident or a non-resident of Canada. An individual who is resident in Canada during a tax year is subject to

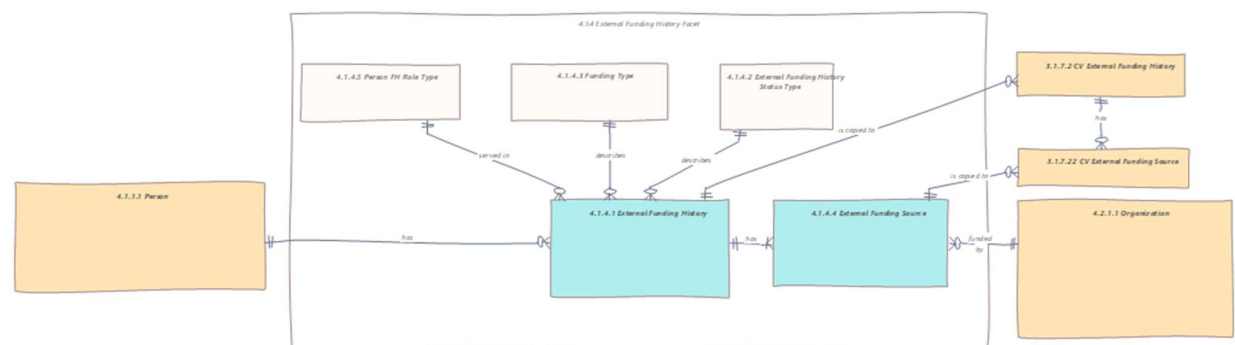
An individual who is resident in Canada can be characterized as ordinarily resident or deemed resident.

<https://www.canada.ca/en/revenue-agency/services/tax/technical-information/income-tax/income-tax-folios-index/series-5-international-residency/folio-1-residency/income-tax-folio-s5-f1-c1-determining-individual-s-residence-status.html>

Defines the position in the researcher's career, for example:

- women
- Indigenous peoples
- persons with disabilities
- members of visible minorities

Funding History information is used for corporate reporting, as well as assessments by Reviewers. Funding History data includes: Title of proposal, Program, Funding Start and End Dates, and more.



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#### *4.1.4.1 External Funding History*

A collection of historical funding related activities for which the Person served a role. The funding activity is specific to funding sources external to the agencies, and could include funding requests currently in review as well as funded research.

NSERC, SSHRC and CIHR funding activities are not included in the External Funding History as these can be derived elsewhere.

#### *4.1.4.2 External Funding History Status Type*

The current funding status of the funding history record. For example:

- Awarded
- In Review
- Declined
- Withdrawn

#### *4.1.4.3 Funding Type*

List of funding types. For example:

- Contract
- Fellowship
- Grant
- Award
- Research Chair
- Scholarship

#### *4.1.4.4 External Funding Source*

Funding Source describes the relationship between an organization and a Funding Activity.

#### *4.1.4.5 Person FH Role Type*

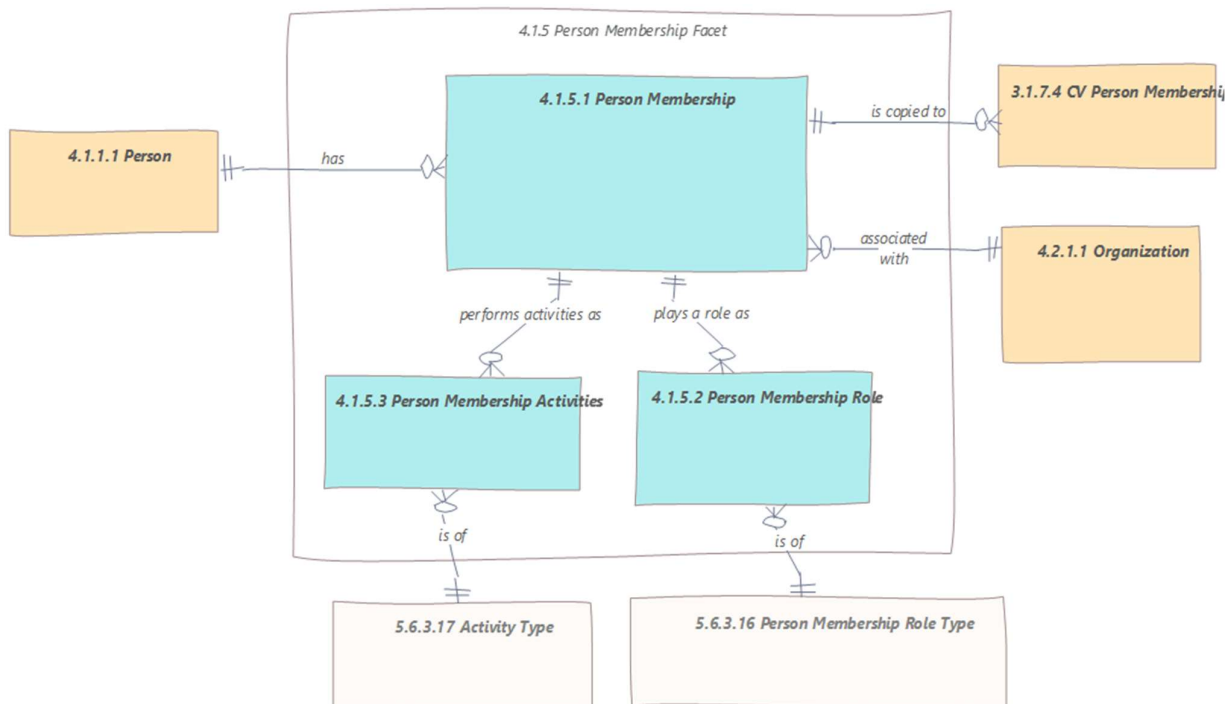
List of values to describe the nature of the person's role in the self-reported external funding history record for example:

- principal applicant
- principal investigator (nominated principal investigator)
- co-applicant
- co-investigator
- collaborator
- decision maker
- policy maker
- principal knowledge user
- co-knowledge user

- supervisor
- Partner organization contact

### 4.1.5 Person Membership

This facet includes services that were contributed as part of a scholarly societies, professional associations, etc. but not directly related to their research activities. Membership information can be used for reporting, as well as assessments by Reviewers. Membership data includes: Description, Committee Name, Membership Start and End Date, Role, and more.



**4.1.5 Person Membership - Simplified**

#### 4.1.5.1 Person Membership

Defines a Person's relationship with an organization that is (for example) an association or society (professional or otherwise). For example:

- Canadian Association for Graduate Studies
- Canadian Association of Physicists
- Canadian Association of Research Libraries
- Canadian Association of University Teachers
- Canadian Astronomical Society
- Canadian Council of University Biology Chairs

This *excludes* memberships in tri-agency committees, which are captured elsewhere.

OLD DEFINITION: Services contributed as part of a group elected or appointed to perform such services but not directly related to the person's research activities.

#### 4.1.5.2 Person Membership Role

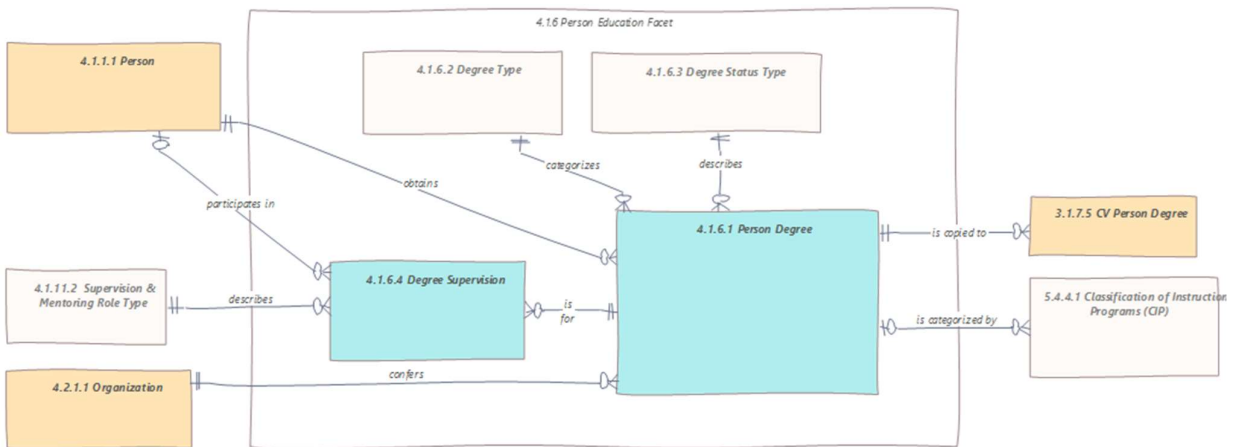
Defines the role that a person plays in an organization to which they are a member.

#### 4.1.5.3 Person Membership Activities

Defines the activities that a Person performs as part of their membership.

### 4.1.6 Person Education

This facet represents the full and up-to-date history of a PERSON's academic history. EDUCATION information is used by Program Officers and Committees to assess eligibility and merit. It can also be used for reporting. EDUCATION data includes: Degrees, Degree Type, Certifications, Dates, Organization, and more.



**4.1.6 Person Education - Simplified**

#### 4.1.6.1 Person Degree

This entity lists the post-secondary degrees that a person has started and their completion status.

#### 4.1.6.2 Degree Type

The designation of the person's degree, for example:

- Bachelor
- Bachelor's Equivalent
- Master
- MD
- MD/PhD
- PhD
- DPhil
- MPhil

#### 4.1.6.3 Degree Status Type

Indicates the status of a person's degree, for example:

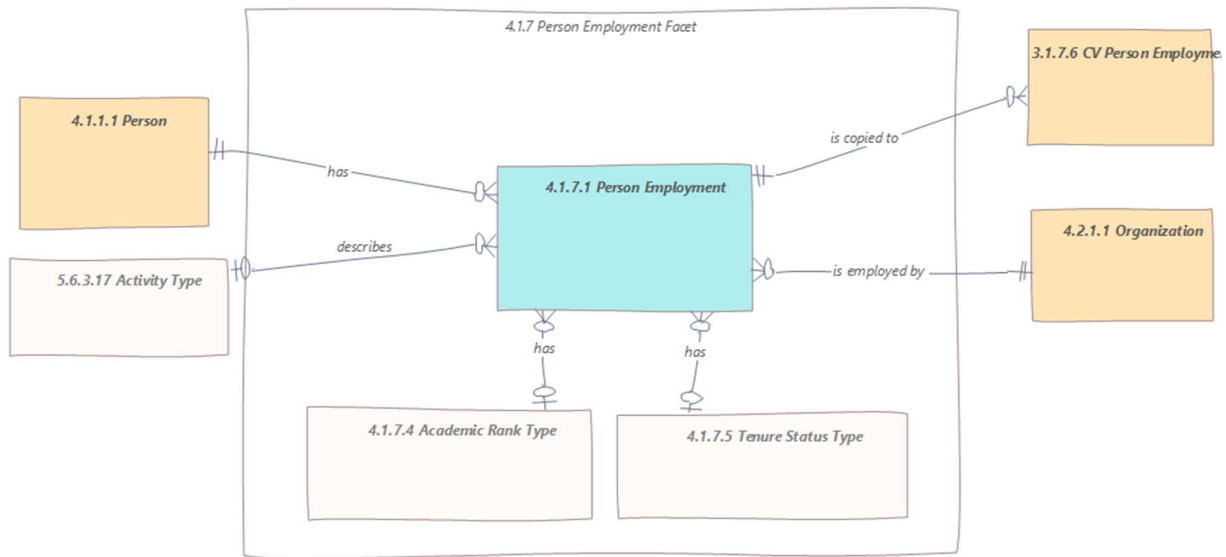
- completed
- in progress
- withdrawn

#### 4.1.6.4 Degree Supervision

This entity associates persons responsible for degree supervision with the person who obtains the degree, i.e. the student.

#### 4.1.7 Person Employment

This facet represents the full and up-to-date history of a PERSON's academic and non-academic employment at an ORGANIZATION. Agency staff (e.g., Program Officers, Program Assistants, Secretariat, and others) use EMPLOYMENT information for purposes such as: Eligibility assessments, Primary Affiliation statistics, conflict of interest (Col), etc. EMPLOYMENT data includes: Position type, Tenured or tenure-track academic appointment; as well as Academic Work Experience (e.g., Position Status, Position Title, Start Date, Work Description).



**4.1.7 Person Employment - Simplified**

##### 4.1.7.1 Person Employment

Collection of information records that, in combination, represent the full and up-to-date history of the person's employment

##### 4.1.7.4 Academic Rank Type

Defines the possible ranks (positions) of a faculty member in an academic institution, for example:

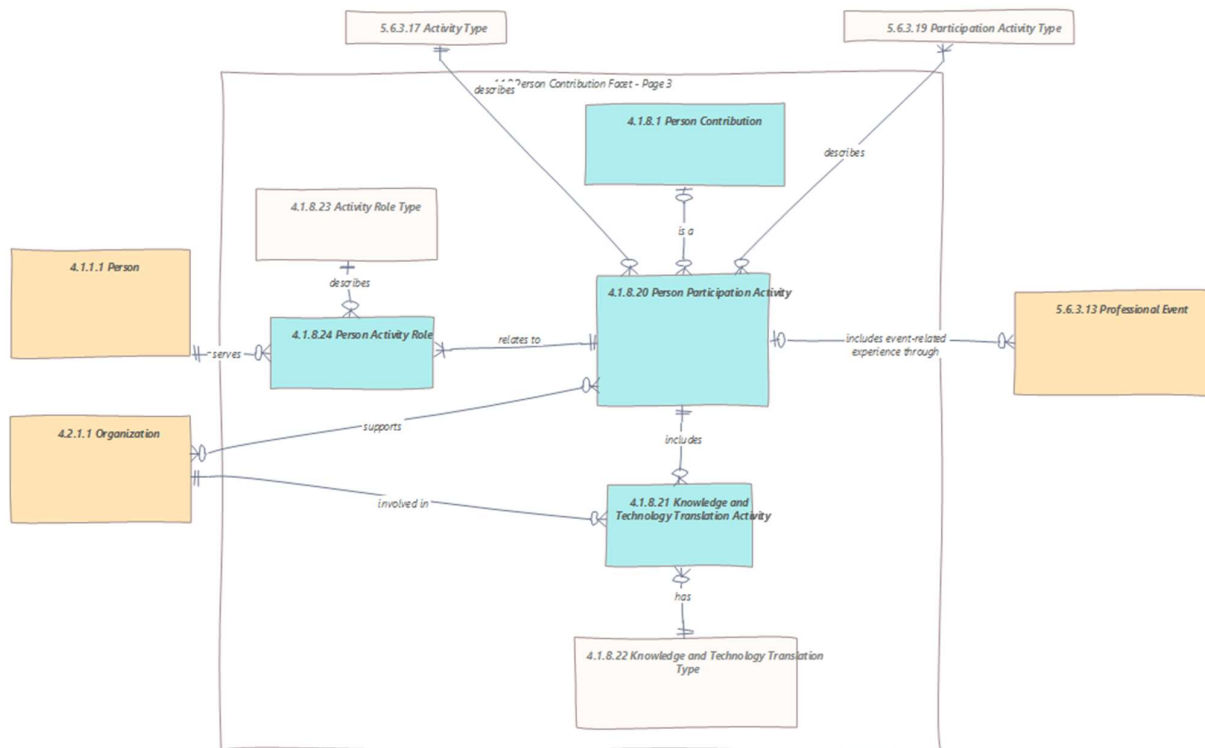
- Lecturer
- Assistant Professor
- Associate Professor
- Professor
- Adjunct Professor

##### 4.1.7.5 Tenure Status Type

This entity lists the possible statuses of academic positions with regard to tenure. (e.g., Non Tenure Track, Tenure, Tenure Track).

This facet pertains to a PERSON's relevant contributions to research and advancement of knowledge, and is used by Reviewers to assess and evaluate a PERSON's accomplishments to aid in determining if a PERSON is meritorious. CONTRIBUTION data includes: Artistic, Intellectual Property, Interviews and Media Relations (e.g., Broadcast Interviews, Text Interviews); as well as Publications.





**4.1.8 Person Contribution - Page 3 - Simplified**

#### 4.1.8.1 Person Contribution

Person Contribution information defines a Person's inputs (contributions) to the research and advancement of knowledge, science promotion, outreach and increasing EDI in the research enterprise. Contributions are used to assess and evaluate a Person's accomplishments in the process of determining whether a Person is meritorious.

Artistic, Intellectual Property, Interviews and Media Relations (e.g., Broadcast Interviews, Text Interviews); as well as Publications.

#### 4.1.8.2 Contribution Type

This entity lists the possible types of professional contributions a person has made as part of their career to research and advancement of knowledge, for example:

- Presentations
- Interviews and Media Relations
- Publications
- Artistic Contributions
- Intellectual Property

#### 4.1.8.3 Publishing Status Type

This entity lists the possible values for the statuses of articles with regard to publication, for example:

- Accepted
- In Press
- Published

- Revision Requested
- Submitted
- Preprint

#### *4.1.8.5 Contribution Role Type*

List of values to describe the nature of the person's role in the creation of the contribution, for example:

- first author
- co-author
- editor
- inventor
- co-inventor
- licensor
- reviewer

#### *4.1.8.6 Patent Status Type*

This entity describes the list of possible patent status values, for example:

- Issued/Granted – patent that has been issued/granted by a patent office.
- Allowed – patent application whose claim(s) were deemed patentable by the patent office.
- Pending – patent application that has been filed with the patent office and is pending prosecution.
- Lapsed – patent that no longer confers any patent rights to the patentee because the appropriate maintenance fees have not been paid within the applicable time limit.
- Withdrawn – patent application that is withdrawn either on request of the applicant or by decision of the Patent Office.
- Expired – patent has run its full term and is no longer valid.

#### *4.1.8.7 Presentation*

This entity describes the details for lectures or presentations made by a person as part of their professional contributions.

#### *4.1.8.8 Interview*

This entity provides details for a person's professional contributions that are interviews (either broadcast or text).

#### *4.1.8.9 Published Work*

This entity lists published works that were created or edited by a person, as part of their professional contributions, for example:

- Journal Articles
- Books
- Newspaper Articles

- Encyclopedia Entries

#### *4.1.8.10 Artistic Contribution*

This entity provides details for a person's professional contributions that are artistic contributions, for example artistic exhibitions, musical compositions or performances, scripts, works of fiction, performance art, poetry, etc.

#### *4.1.8.11 Intellectual Property*

Collection of information records that, in combination, represent a full and up-to-date history of the intellectual property owned by the person and resulting from, or related to, the person's research activities. This includes patents, licenses, disclosures, registered copyrights, trademarks.

#### *4.1.8.12 Intellectual Property Type*

This entity lists the possible types of intellectual property a person has created as part of their career to research and advancement of knowledge. For example:

- Patents
- Licenses
- Disclosures
- Registered Copyrights
- Trademarks

#### *4.1.8.13 Artistic Contribution Type*

This entity lists the possible types of artistic contributions a person has created as part of their career to research and advancement of knowledge, for example:

- artistic exhibitions
- musical compositions or performances
- scripts
- works of fiction
- performance art
- poetry

#### *4.1.8.14 Contribution Funding*

Defines which organizations contributed to the funding of a contribution. This entity enables a contribution to be documented as having been jointly funded by more than one organization.

#### *4.1.8.15 Interview Type*

This entity lists the possible types of interviews a person has participated in as part of their career to research and advancement of knowledge, for example:

- broadcast interviews
- text interviews



#### *4.1.8.16 Litigation Support*

Defines the Person's role in delivering knowledge in support of litigation activities, such as an expert witness.

#### *4.1.8.17 Shared Materiel*

Defines research products or materiel (such as datasets, software, novel assays and reagents) that are the products of a Person's research efforts, and are provided by that Person as an assist to other researchers.

#### *4.1.8.18 Shared Materiel Type*

Defines the nature of the materiel shared by a Person as part of a Shared Materiel Contribution, examples are:

- datasets
- software
- novel assays
- reagents

#### *4.1.8.20 Person Participation Activity*

Person Participation Activity information describes activities other than traditional research activities (i.e. other than those activities described as 'Contributions'), which contribute to excellence in the development of a Person, and their impact on improvements to Canadian research outcomes. This includes a Person's contributions to increasing research integrity, and improving research culture.

Person Participation Activity information has the Activity type of 'Participation Activity', which are further elaborated by Participation Activity Types.

#### *4.1.8.21 Knowledge and Technology Translation Activity*

Defines services delivered by a Person towards the translation of knowledge into improved outcomes for Canadians. These activities represent interactions between researchers, knowledge users, and others, which may vary in intensity, complexity and level of engagement (depending on the nature of the research and the findings as well as the needs of the particular stakeholders).

#### *4.1.8.22 Knowledge and Technology Translation Type*

Defines Knowledge and Technology Translation activity areas, for example:

- Business Innovation
- Citizen Engagement (e.g., collaboration with particular societal or patient groups)
- Community Engagement
- Consultation Service
- Consulting for Industry
- Involvement/Creation of Startup
- Policy/Regulation Development
- R&D Collaboration with Industry
- Research Uptake strategies

- Development of standards or codes of practice
- Technology, Product, Process, Service Improvement/Development
- Technology Transfer and Commercialization
- Commercial, entrepreneurial or industrial activities
- Clinical practice activities
- Educational products activities

#### 4.1.8.23 Activity Role Type

This entity lists possible role types that a PERSON can play in various PERSON ACTIVITIES, for example:

- chair
- member
- organizer
- facilitator

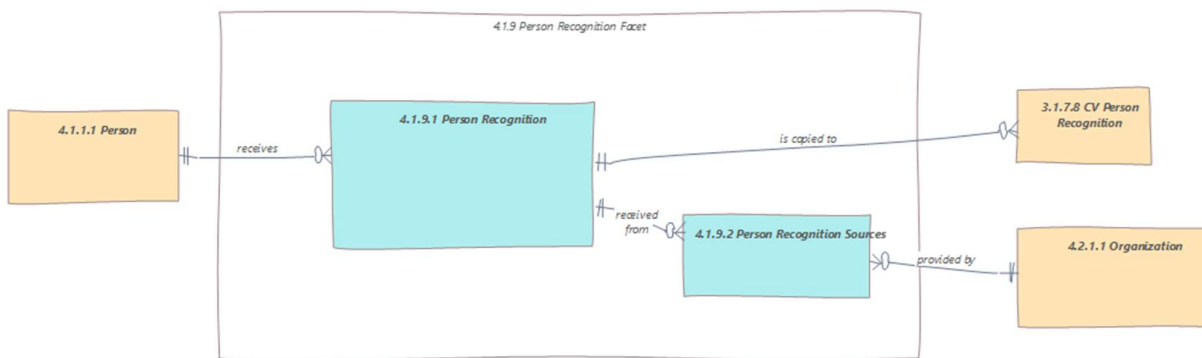
Note: This entity is very similar to 5.6.3.16 Person Membership Role Type, and should be evaluated.

#### 4.1.8.24 Person Activity Role

This entity associates persons with activities and their role in that activity

### 4.1.9 Person Recognition

This facet pertains to prizes, awards, and/or distinctions a PERSON received over a specified period from an ORGANIZATION. It is used by Reviewers to assess and evaluate a PERSON's accomplishments to aid in determining if a PERSON is meritorious. RECOGNITION data includes: Recognition data (e.g., Amount, Description, Effective Date, Organization, End Date, Recognition Name, and Recognition Type).



4.1.9 Person Recognition - Simplified

#### 4.1.9.1 Person Recognition

Person Recognitions are any acknowledgments, appreciations, monetary and non-monetary rewards that were obtained and which were **not** directly related to a person's research funding.

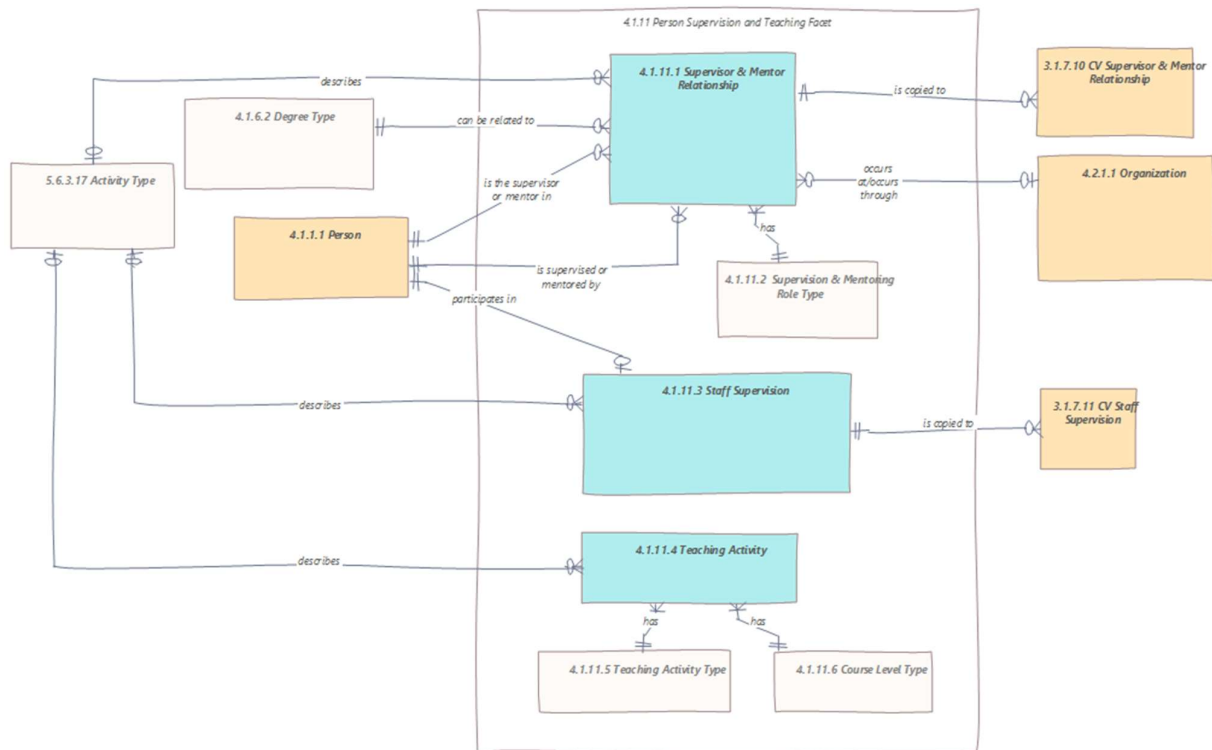
#### 4.1.9.2 Person Recognition Sources

Defines the sources of Person Recognition, which may derive from more than one organization.

### 4.1.11 Person Supervision and Teaching

This facet describes the role of a person as:

- a teacher of students (i.e., teaching students in formal courses)
- a supervisor of students (and post-doctoral resources) in a degree of diploma program
- a supervisor of staff (e.g., such as technical, scientific, or administrative staff)



**4.1.11 Person Supervision and Teaching - Simplified**

#### 4.1.11.1 Supervisor and Mentor Relationship

Describes instances where:

- a Person is either being directly supervised by another Person; or
- a Person is being mentored by another Person.

This allows the HQP (Highly Qualified Personnel) relationship between supervising person and supervised person, and mentoring person and Mentored person, to be clearly defined.

#### 4.1.11.2 Supervision and Mentoring Role Type

This entity defines the relationship between two Persons as either a supervisory or a mentoring type of role, for example:

- Academic Advisor
- Co-supervisor
- Principle Supervisor
- Mentor
- Supervised HQP

- Mentored HQP

#### 4.1.11.3 Staff Supervision

Provides an overview of a person's experience supervising staff and volunteers.

#### 4.1.11.4 Teaching Activity

Services contributed in the form of teaching activities at academic institutions with which a person is currently, or has in the past been affiliated.

#### 4.1.11.5 Teaching Activity Type

This entity lists the possible types of teaching activities a person has participated in, for example:

- courses taught
- courses developed
- program developed

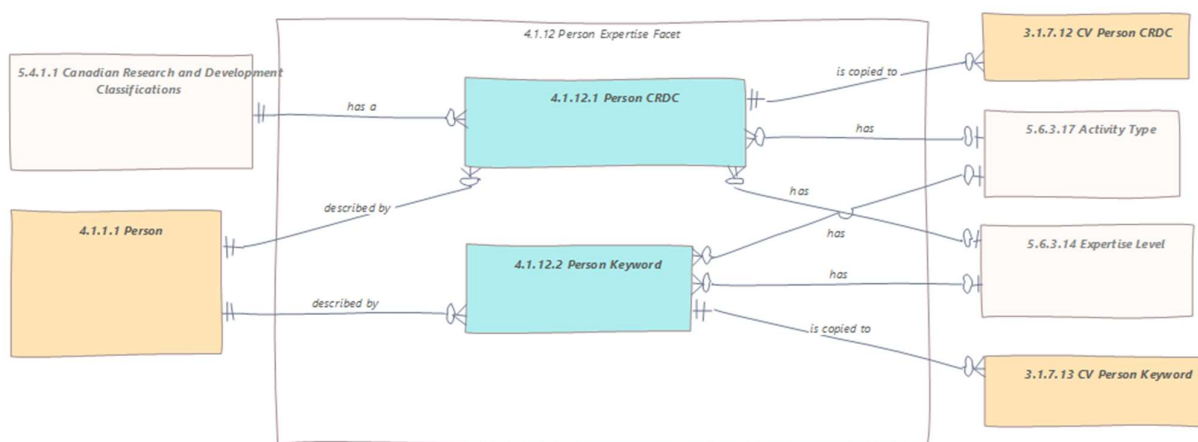
#### 4.1.11.6 Course Level Type

This entity lists the possible levels of courses, for example:

- College
- Undergraduate
- Graduate
- Postgraduate

### 4.1.12 Person Expertise

This facet describes a person's expertise in terms of the Canadian Research and Development Classification and keywords.



4.1.12 Person Expertise - Simplified

#### 4.1.12.1 Person CRDC

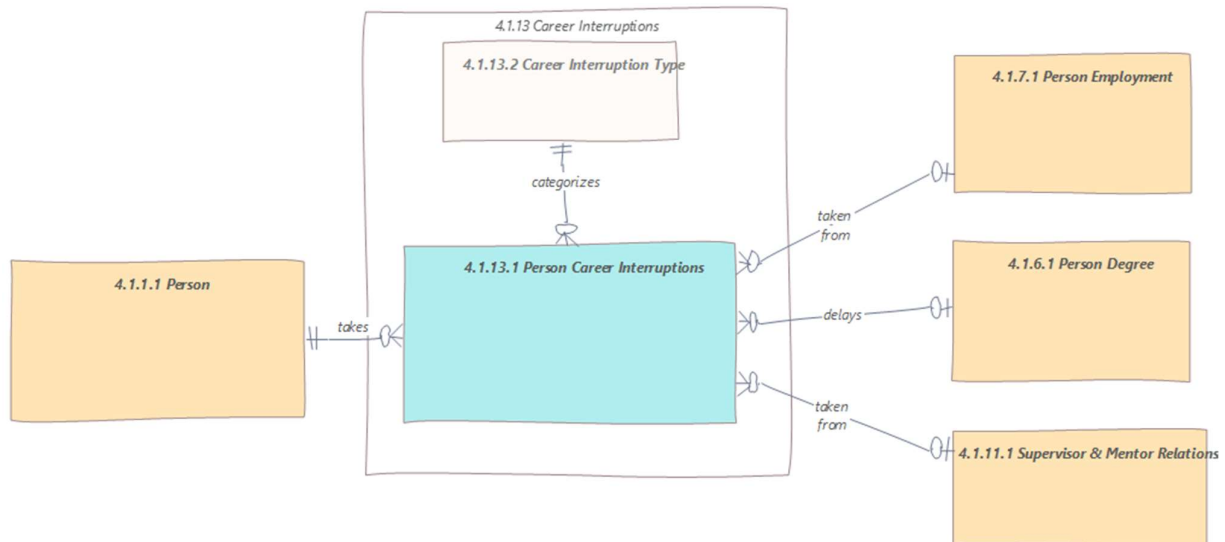
Defines Canadian Research and Development Classifications associated with a Person's profile. These are the research specialization areas in which a person has expertise.

#### 4.1.12.2 Person Keyword

Defines additional self-identified keywords that correspond to a person's expertise in such areas as research, creation, instrumentation and techniques to supplement the existing CRDC.

### 4.1.13 Career Interruptions

This facet provides information related to the gaps ('Career Interruptions' or 'Leaves') that a person has taken in the course of their career. Career interruptions impact the duration required to achieve a degree, or to complete research, or to attain an employment achievement. They also impact the time spent supervising or mentoring HQP.



**4.1.13 Career Interruptions - Simplified**

#### 4.1.13.1 Person Career Interruptions

This entity provides explanatory information regarding gaps in EMPLOYMENT history or EDUCATION due to leaves, interruptions and delays for a PERSON.

This information is used by a Reviewer to assess the impact of Career Interruptions (leaves of absence, interruptions and delays) on the research activities or in disseminating research results.

The data captured will include Start and end dates of leave/interruption/delay, Absence and Impact Description, as well as Leave Type.

Absence and Impact Description will require privacy controls to ensure that the Person's reasons are not publicly released.

#### 4.1.13.2 Career Interruption Type

The nature of the leave of absence, interruption or delay in the research and dissemination of research results. For example:

- Administrative
- Bereavement
- Medical
- Other Circumstances
- Parental

- Sabbatical
- Special
- Study

Note: The Canada Research Chairs ([https://www.chairs-chaires.gc.ca/peer\\_reviewers-evaluateurs/productivity-productivite-eng.aspx#publication](https://www.chairs-chaires.gc.ca/peer_reviewers-evaluateurs/productivity-productivite-eng.aspx#publication)) describe examples of legitimate circumstances that could affect productivity:

- Career interruptions occur when, for health, family or other reasons, a nominee is taken away from his or her research work for an extended period of time (e.g., pregnancy, early childcare, eldercare, illness, etc.).
- Slow-downs occur when for health, family or other reasons (e.g., pregnancy, early childcare, eldercare, illness, etc.) a nominee's research productivity slows down (i.e., the nominee was not taken completely away from his or her work).
- Publication delays occur when legitimate delays in the dissemination of research results due to circumstances that make it impossible or undesirable to publish important results (e.g., a delay in publication to protect intellectual property).
- Interdisciplinary research achievement and excellence indicators, or similar indicators in emerging areas, may not be as evident as those for research in the mainstream of a given field. Researchers conducting interdisciplinary or multidisciplinary research or research in emerging fields may face additional challenges that can affect productivity.
- Institutional characteristics vary between small, medium and large institutions, and may affect productivity. Opportunities for collaboration and networking, access to graduate programs, access to research space, access to mentoring and coaching, access to professional grant-writing and editing services or research office support may differ between institutions (e.g., a researcher affiliated with a small university that does not have a graduate program in his or her area of expertise will make different contributions to student training than a researcher from a large university that offers an extensive and well-established graduate program).
- Intellectual leadership involvement, such as the stewardship of large initiatives (e.g., leading a network or facility) is important, and may allow researchers to have influence and impact beyond their own institution at national and international levels. These intellectual leadership activities are legitimate activities of a Canada Research Chair. Such involvement may, in some cases, negatively affect their research outputs, as measured by traditional peer review metrics such as the publication record.

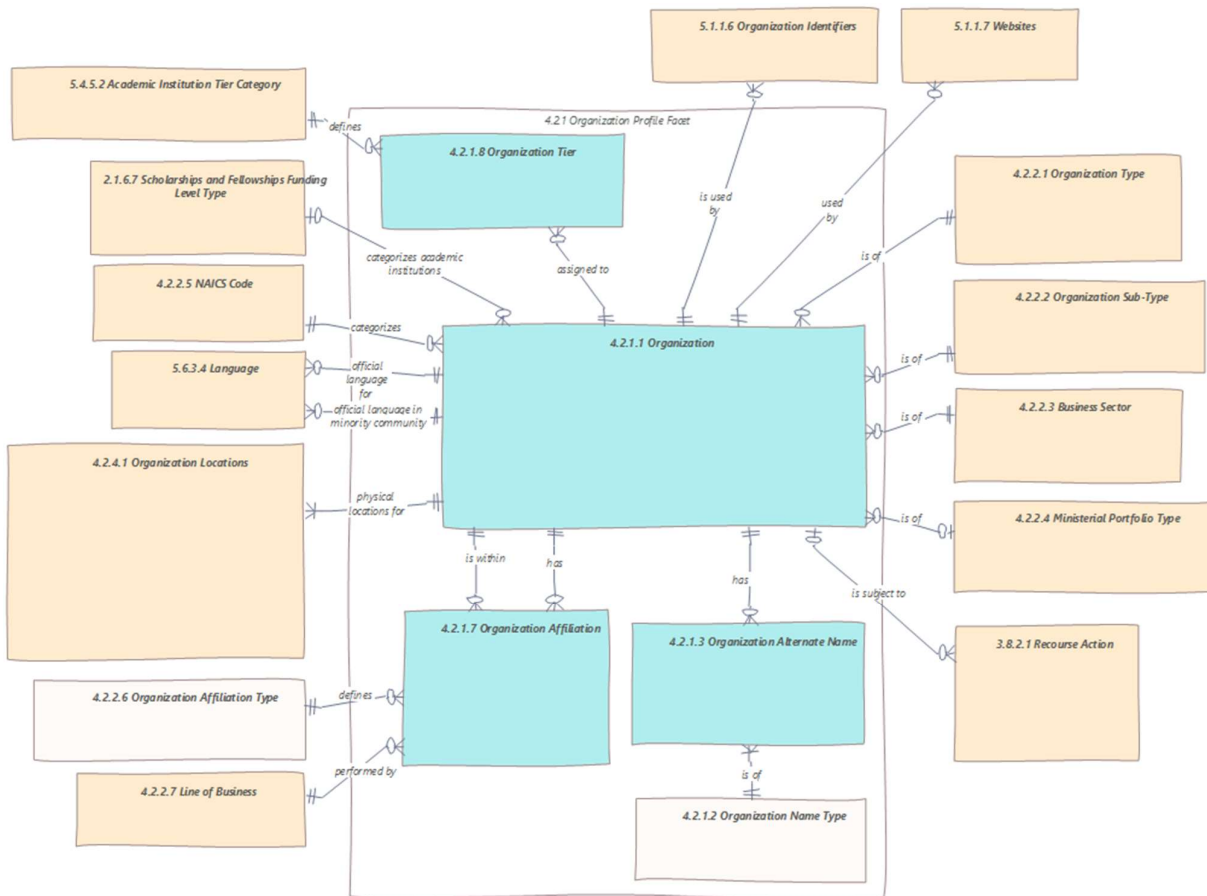
These are not yet fully encoded in the CDM structures, and need to be accommodated in future.

## 4.2 Organizations

This Subject defines the data related to the organizations (whether government, or privately owned) involved in the grants management business.

### 4.2.1 Organization Profile

This Facet defines the data that the TGMS business uses to identify organizations.



**4.2.1 Organization Profile - Simplified**

#### 4.2.1.1 Organization

Organizations are enterprises that participate (actively or passively) in conducting business related to the TGMS business area. Organizations include the three agencies as well as other academic, public sector or private sector enterprises.

#### 4.2.1.2 Organization Name Type

Defines an alternate name for an organization such as:

- Operating name
- Acronym name
- Former name

#### 4.2.1.3 Organization Alternate Name

Defines an alternate name for an organization such as:

- Operating name
- Acronym name
- Former name

#### 4.2.1.7 Organization Affiliation

Defines the affiliation between two organizations in Canada, and identifies the list of affiliation activities that one organization performs for another.

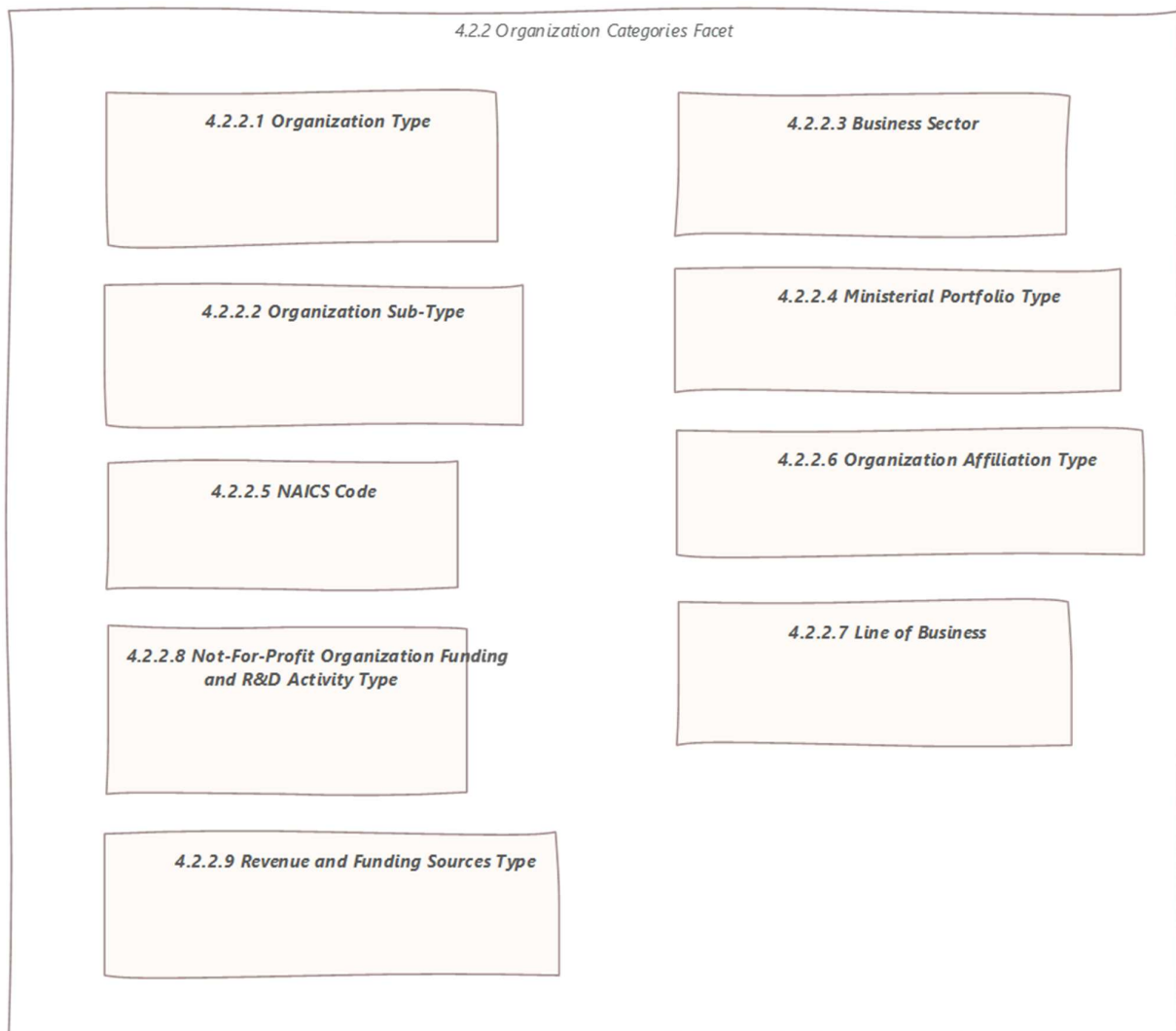
#### 4.2.1.8 Organization Tier

Defines the classification tier of an organization by year. The classification tier can be defined by various Academic Institution Classification metrics such as:

- Funding Received
- Number of full time staff
- Maclean's
- U15
- Statistics Canada (StatsCan)
- USRA

### 4.2.2 Organization Categories

This Facet defines the data that the TGMS business may use to categorize organizations.





#### *4.2.2.1 Organization Type*

Defines whether the organization belongs to a type such as:

- Private Enterprises
- Not for Profit
- Academic Research
- Federal Government
- Provincial/Territorial Government
- Municipal Government
- Professional Association
- Funding Agency
- Aboriginal Organization
- Charitable Organization
- College
- University

#### *4.2.2.2 Organization Sub-Type*

Defines whether the organization belongs to a sub-type such as:

- Private/Public Canadian and Foreign
- Private/Public in Canada
- Private/Public outside Canada
- Research Institute/Organization

#### *4.2.2.3 Business Sector*

Defines the business sectors within which an organization functions. Examples are:

- Automotive
- Telecommunications
- Pharmaceutical

#### *4.2.2.4 Ministerial Portfolio Type*

Describes Ministerial Portfolio types that categorize Canadian federal government organizations such as:

- Department
- Statutory and Other Agencies
- Service Agency
- Crown Corporations

- Shared-Governance Corporations

#### *4.2.2.5 NAICS Code*

Defines the North American Industry Classification System (NAICS) code - a North American standard that was developed for use by statistical agencies for the collection, analysis and publication of statistical data related to the economy.

NAICS is an industry classification system, based on a production-oriented concept - it groups establishments into industries according to similarity in the processes used to produce goods or services. NAICS is often used for classifying companies and enterprises.

The structure of NAICS is hierarchical. It is composed of five levels.

- level 1: sectors (two-digit codes)
- level 2: subsectors (three-digit codes)
- level 3: industry groups (four-digit codes)
- level 4: industries (five-digit codes)
- level 5: Canadian industries (six-digit codes)

#### *4.2.2.6 Organization Affiliation Type*

Defines the nature of a logical association between Organizations. For example, an organization may relate to another as a:

- Partner
- Research Partner
- Affiliated
- Federated
- Multinational

#### *4.2.2.7 Line of Business*

Defines the list of business lines that an organization may operate (also termed 'Organization Activities'), such as:

- Consulting
- Manufacturing
- Processing
- Production
- Research & Development
- Development
- Testing
- Sales
- Distribution Services
- Policy Development

- Head Office (Headquarters) Management

#### ***4.2.2.8 Not-For-Profit Organization Funding and R&D Activity Type***

Defines funding and R&D activities for a 'not -for-profit' organization, which includes:

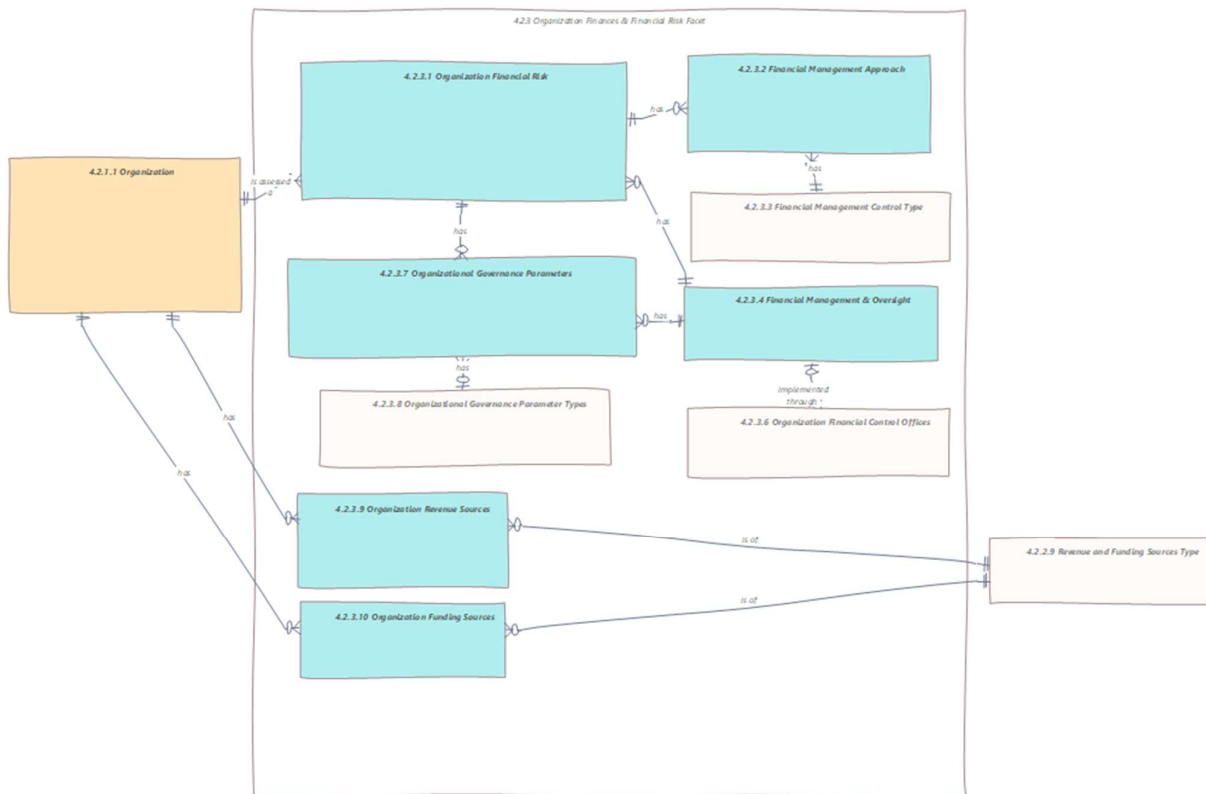
- Funding of R&D Activities on behalf of members
- Dissemination of information to membership
- Lobbying/Marketing function
- Regulatory role

#### ***4.2.2.9 Revenue and Funding Sources Type***

Defines the sources from which an organization can derive its revenue or its funding. Examples are:

- Government (all sectors)
- Federal Government
- Provincial/Territorial Government
- Municipal Government
- Contributions (from Industry or members)
- Contributions (Private)
- Sales and services
- Angel investment or Venture Capital

### **4.2.3 Organization Finances & Financial Risk**



**4.2.3 Organization Financial Risk - Simplified**

#### 4.2.3.1 Organization Financial Risk

Defines the Organization's Financial Risk parameters resulting from the tri-agency results of an Organizational Eligibility assessment (Institutional Eligibility Request).

#### 4.2.3.2 Financial Management Approach

Describes the approach that the Organization employs to manage business functions supporting the financial management of grants and awards be organized. This includes such functions as:

- Account Opening
- Accounting/Finance
- Accounts Payable
- Agency Policy Interpretation
- Accounts Receivable
- Compliance & Eligibility Review
- Financial Procedures
- Financial Policies
- Human Resources
- Payroll
- Post Award Administration
- Pre Award Administration

- Purchasing
- Research Ethics Board Review
- Release of Funds
- Reporting
- Training
- Transfer of Funds

#### *4.2.3.3 Financial Management Control Type*

Describes the management control organization model. For example:

- Centralized
- Decentralized

#### *4.2.3.4 Financial Management and Oversight*

Describes what offices of the Organization will be responsible for the day-to-day management and oversight of grants and awards.

#### *4.2.3.6 Organization Financial Control Offices*

Defines the Organization's offices that participate in the management and oversight of grants and awards. These may include:

- Finance/Accounting Office
- Research Office
- Department/Faculty
- Recipient or their delegate
- Appointed Institutional Representative or Department

#### *4.2.3.7 Organizational Governance Parameters*

Defines the Organizations grants and awards governance and support, including such areas as:

- governance structures
- roles and responsibilities
- Delegation of signing authorities
- authorization of expenditures
- training
- research and financial systems structure
- release of funds
- research ethics board (REB) and animal care committee review
- review of compliance and eligibility of expenses
- segregation of responsibilities

- ownership and disposal of assets
- oversight activities
- financial reporting to the recipient
- compensation
- travel and hospitality cost management
- internal expense allocations and shared expenditures
- purchasing card

#### 4.2.3.8 Organizational Governance Parameter Types

Defines the detailed components of an Organization's Governance Parameters. For example, in response to the Organization's Governance Parameter "Will the institution have a formal process to assess the design and operational effectiveness of internal controls? ", the Organizational Governance Parameter Types may be one or more of:

- Yes, key internal controls will be assessed by our external auditors.
- Yes, key internal controls will be assessed by our internal audit department.
- Yes, key internal controls will be assessed by a specialized unit within the Institution.
- Yes, key internal controls will be assessed by our Finance/Accounting Department.
- No, key internal controls are not assessed.

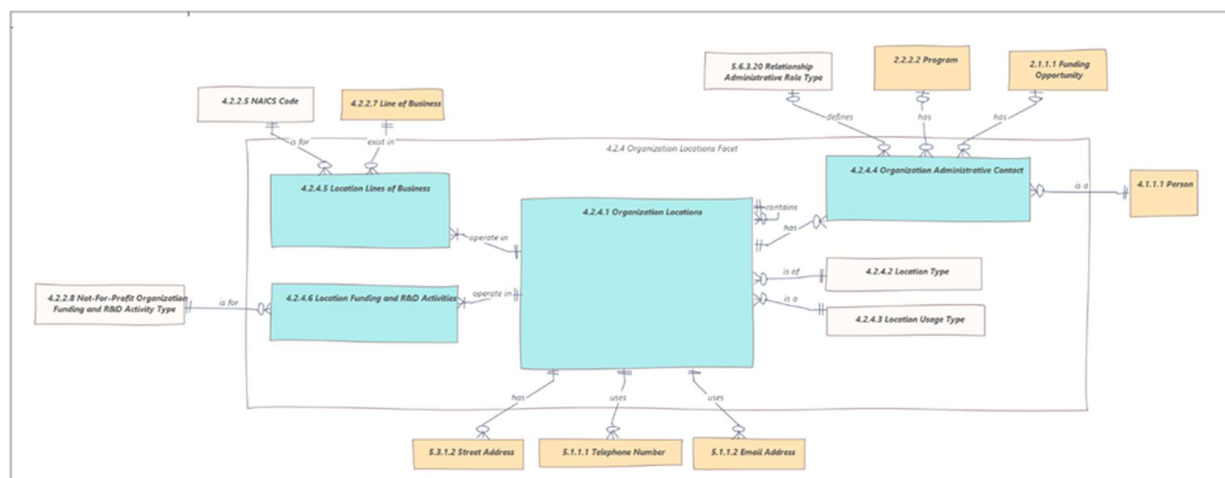
#### 4.2.3.9 Organization Revenue Sources

Defines the sources from which the organization derives its revenue, and flags the organization's primary source of revenue.

#### 4.2.3.10 Organization Funding Sources

Defines the sources from which an organization derives funding for its research programs.

### 4.2.4 Organization Locations



4.2.4 Organization Locations - Simplified

#### 4.2.4.1 Organization Locations

Defines further attributes of an Organization's address, for example:

- is the address a building, or cluster of buildings
- is this a temporary or permanent location
- occupancy dates at that address

#### 4.2.4.2 Location Type

Defines the nature of a particular address. For example, is it:

- a Building
- a Campus

#### 4.2.4.3 Location Usage Type

Defines the business or organizational usage for a given location, for example:

- Head Office
- Regional Office

#### 4.2.4.4 Organization Administrative Contact

Defines Persons who are authorized by the Organization to provide the agencies with Organization information, and are authorized to update information related to the organization at a given location (each location must have an identified data provider).

#### 4.2.4.5 Location Lines of Business

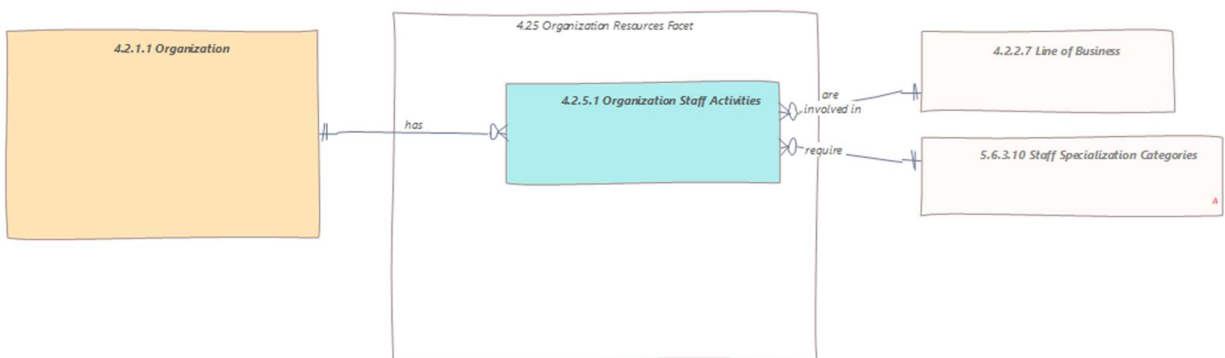
Defines the lines of business that reside at an organization's location.

#### 4.2.4.6 Location Funding and R&D Activities

Defines funding and R&D activities conducted by the 'not -for-profit' organization at this location.

### 4.2.5 Organization Resources

This facet describes the information that TGMS requires concerning an Organization's staffing of their Business Line activities.



4.2.5 Organization Resources - Simplified

#### *4.2.5.1 Organization Staff Activities*

Defines the staffing levels that an organization allocates to Business Line activities.



## 5. Management Information Domain

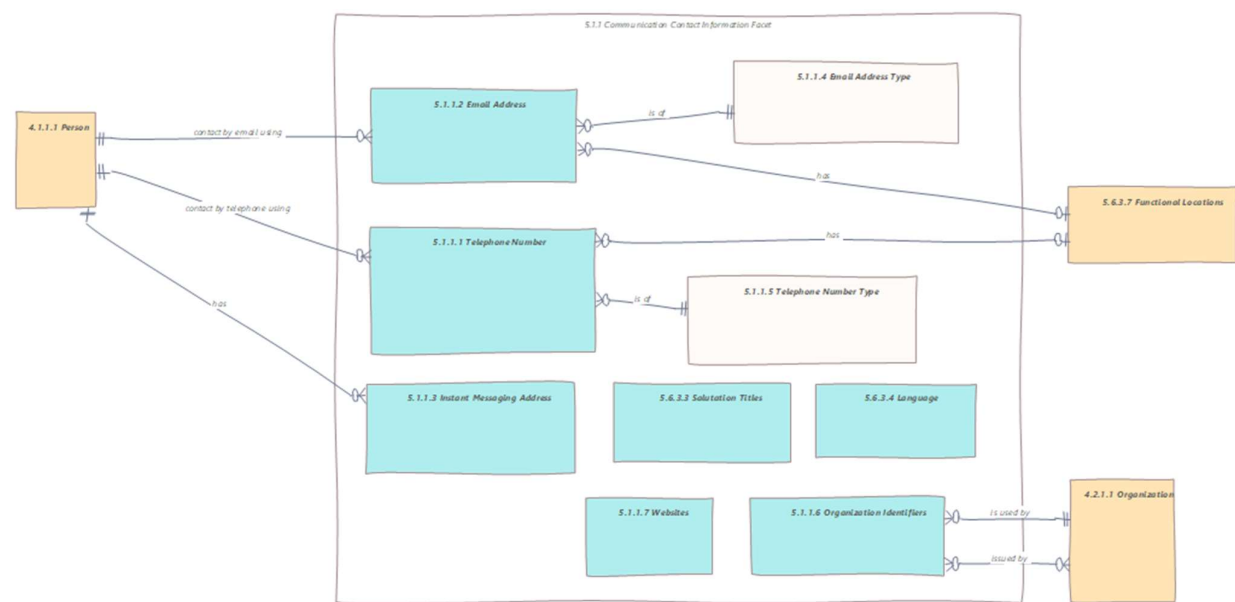
This Domain manages common data that is required and used by other Domains. This includes such common data assets as address data, geographic data, and specialized code tables or parameters. Also included are such data as Workflow Management data (workflow definition, calendaring and scheduling, and workflow execution), Correspondence (communication items, modes) and Projects.

### 5.1 Communications

This Subject defines the data that enables communications between the TGMS and the people and organizations with whom it communicates.

#### 5.1.1 Communication Contact Information

This Facet defines the data that the TGMS business uses to determine how to contact a person or an organization.



**5.1.1 Communication Contact Information - Simplified**

##### 5.1.1.1 Telephone Number

Identifies a telephone number that is used for contacting a contactee. A person may have many telephone numbers, based on the organizations at which they work, or the associations to which they belong, or the personal telephone numbers that they maintain. It is expected that there be one telephone number which is designated as the 'preferred' number for contacts from the TGMS business.

##### 5.1.1.2 Email Address

Identifies email addresses that can be used to contact a person. A person may have many email addresses, based on the organizations at which they work, or the associations to which they belong, or the personal email boxes that they maintain. It is expected that there be one email address that is designated as the 'preferred' address for contacts from the TGMS business.

##### 5.1.1.3 Instant Messaging Address

Identifies internet instant messaging addresses that can be used to contact a person. A person may have many instant messaging addresses. It's expected that there be one instant messaging address which is designated as the 'preferred' address for contacts from the TGMS business.

#### *5.1.1.4 Email Address Type*

Defines the type of email address, or the purpose to which an email address is used. For example:

- personal
- professional
- marketing

#### *5.1.1.5 Telephone Number Type*

Defines the physical nature of a given telephone number. For example:

- voice
- toll-free number
- fax
- teletype
- pager
- data, or
- other

#### *5.1.1.6 Organization Identifiers*

Defines identifiers that have been issued to a person or an organization by other organizations. These external identifiers are used by an organization to identify people or organizations, and are typically distributed by the person or organization in order to facilitate their external communications. Example identifiers are those issued by:

- ORCID
- PUBMED
- Twitter
- Facebook

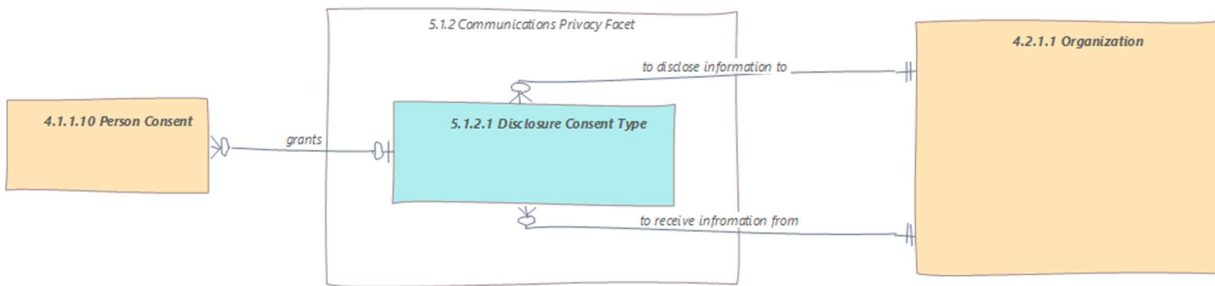
#### *5.1.1.7 Websites*

Defines the internet sites (domain names) that the person or organization owns or uses as 'their' website. This may be:

- a custom website (e.g., john.smith@myresearch.com)
- a personal page on a social or business networking service (e.g., a personal profile page on LinkedIn, Facebook, or other networking service)
- a personal page on a research-oriented service (e.g. ORCID)

### **5.1.2 Communications Privacy**

This Facet defines the data disclosure consents that the TGMS business uses to determine what kind of information a person is prepared to disclose in communications between TGMS and other organizations.



**5.1.2 Communications Privacy - Simplified**

### 5.1.2.1 Disclosure Consent Type

Describes the consent categories required in order to allow the TGMS business to disclose a person's information - constrains the way in which the TGMS business can publicize a person's personal data.

Types of the consents include:

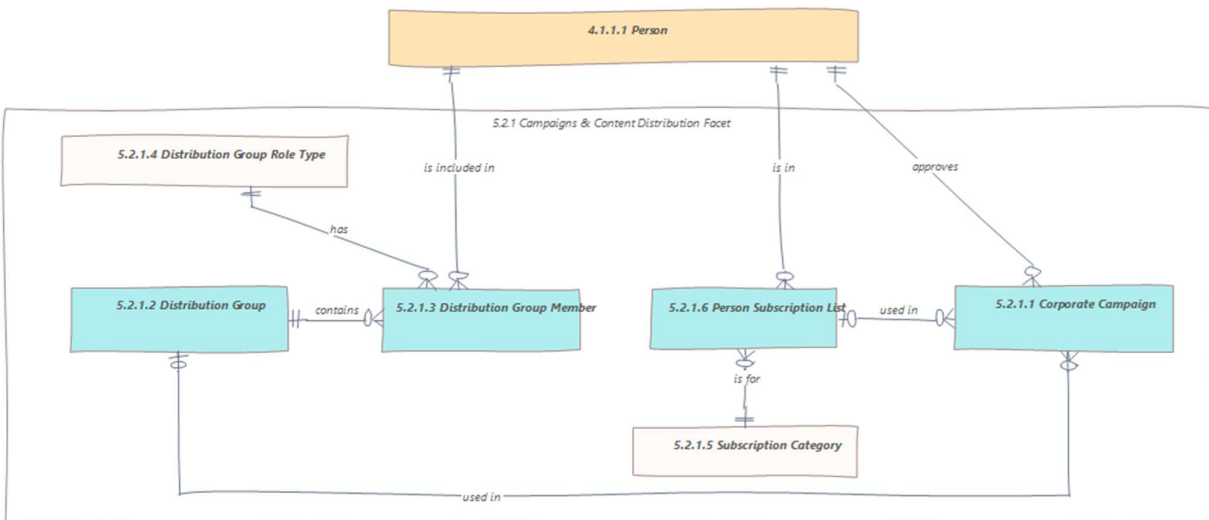
- release of information provided as a new portal user
- release of applicant or application information
- release of personal characteristics (e.g., such information as citizenship, disabilities, gender, etc.)

## 5.2 Correspondence, Campaigns and Interactions

This Subject defines the data related to the specific correspondence and interaction events (e.g., letters, emails, text messages, mass mailings, service desk encounters) between External parties and the TGMS organization.

### 5.2.1 Campaigns & Content Distribution

This Facet defines the data that the TGMS business uses to organize and conduct targeted communications with people and organizations.



**5.2.1 Campaigns & Content Distribution - Simplified**

#### *5.2.1.1 Corporate Campaign*

#### *5.2.1.2 Distribution Group*

Defines a list of persons that has been collected and prepared for the purpose of targeted communications. A Distribution Group may be collated for:

- a one-time targeted communication (e.g., a reminder email to a set of applicants who presently share a commonality)
- a long-term purpose (e.g., a list of people who have applied in the past to a particular Funding Opportunity, or are reviewers for a particular area of research)

The Distribution Group differs from a Subscription List, in that a Distribution Group is prepared by the TGMS business, whereas a person actively joins a Subscription List.

#### *5.2.1.3 Distribution Group Member*

Defines the Distribution Groups (i.e., correspondence lists) to which a person belongs, and the roles that the person plays in each distribution group.

#### *5.2.1.4 Distribution Group Role Type*

Describes what roles a person plays in a Distribution Group, for example, a person may be:

- an Associate - one who simply appears in a Distribution Group
- an Organizer - one who collates and manages a Distribution Group

#### *5.2.1.5 Subscription Category*

Defines the categories of tri-agency subscription-based material that persons and organizations want to receive. For example:

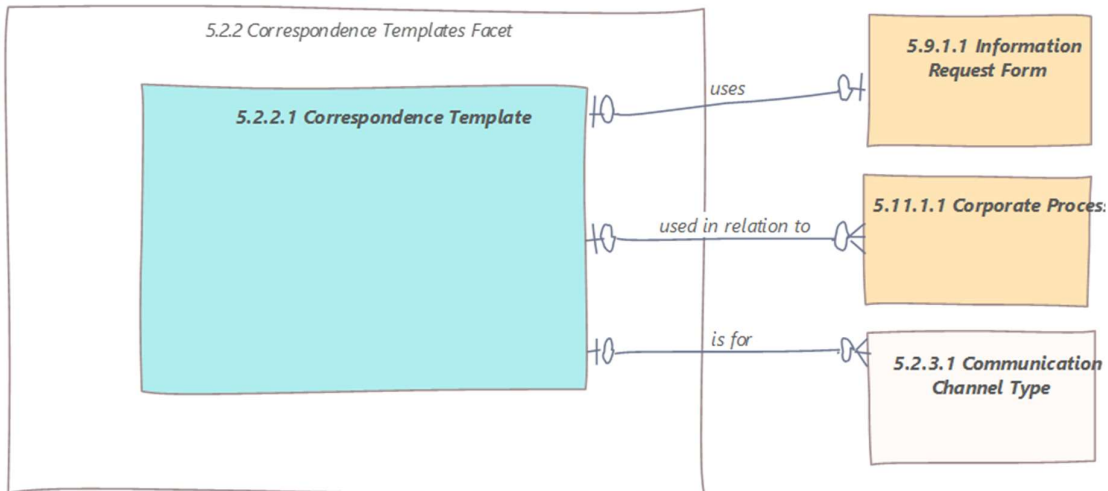
- Funding opportunities in particular research areas
- Research expertise categories
- Financial regulation management guidance and tips

#### *5.2.1.6 Person Subscription List*

Defines the list of persons who receive official notifications as a result of being part of a Subscription Category. The Subscription List differs from a Distribution Group, in that person actively joins a Subscription List, whereas a Distribution Group is prepared by the TGMS business.

## 5.2.2 Correspondence Templates

Defines corporate templates that are created for communications to a Person or Organization, to fulfill a defined business purpose.



**5.2.2 Correspondence Templates - Simplified**

### 5.2.2.1 Correspondence Template

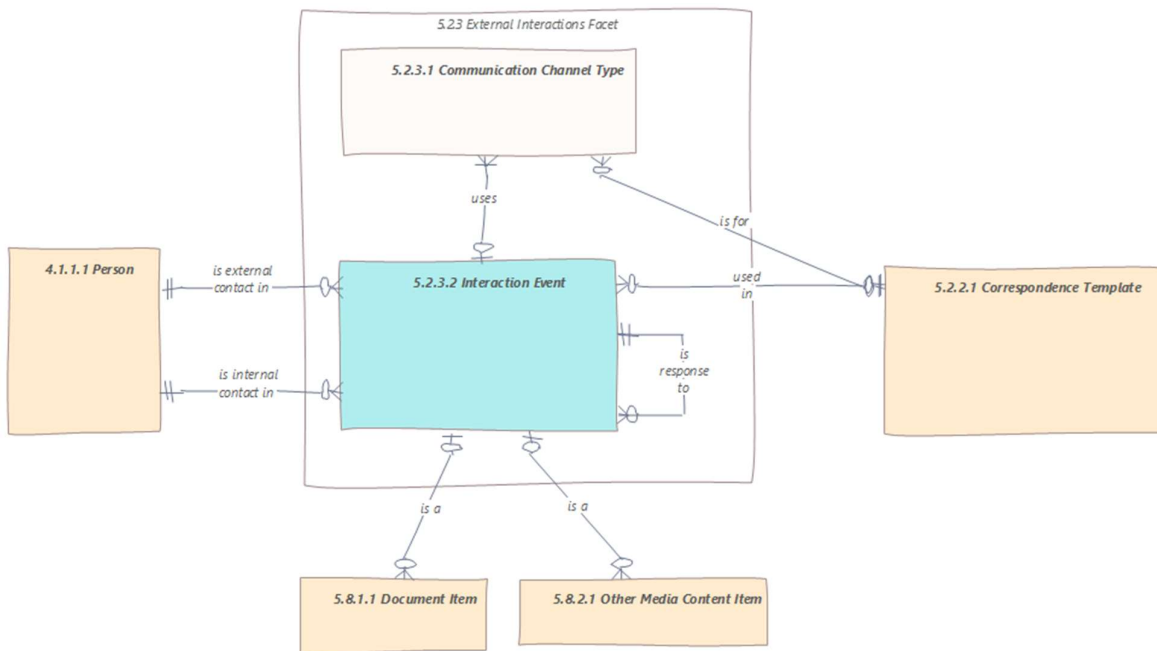
Defines the contents of a template (such as the Notice of Decision) that is sent to external stakeholders. Each template is customized for the use of a given business purpose (i.e., a given business process).

Templates may include:

- document templates, letter mail templates, email or fax messages for particular activities (e.g., fixed format, structure or wording for sections, subsections, appendices, etc.)
- telephone conversation templates (e.g., scripts such as help desk scripts, or outgoing message scripts)
- web chat templates (e.g., scripts for instant messenger conversations)

## 5.2.3 External Interactions

This Facet defines the data related to interactions (i.e., bi-directional communications) that the TGMS organization conducts with external parties, using specific communication channels.



**5.2.3 External Interactions - Simplified**

### 5.2.3.1 Communication Channel Type

Defines the channel (method) of communication. Examples are:

- email
- fax
- telephone
- web chat (e.g., instant messenger)
- person-to-person conversation
- letter mail

### 5.2.3.2 Interaction Event

Defines the details and metadata surrounding the communication between an external party and the TGMS organization staff. These interactions may be person-to-person exchanges, or may also be attendance at TGMS-related business events.

Interaction Events may be unsuccessful (i.e. fail to communicate) due to technical reasons that should be noted. A successful communication is difficult to confirm, however *some* failed communications are explicitly detectable. For example, detectable communication failures that prevented the interaction event from occurring include:

- email receipt was unsuccessful (e.g., the target email system responded that the 'message was undeliverable')
- fax could not be received (e.g., the target fax system responded that the 'fax was undeliverable')
- a mailed letter could not be delivered (e.g., the mail delivery service responded with a 'return to sender')
- a telephone call could not be completed (e.g., the telephone number is no longer valid, or is incorrect)

### 5.2.3.3 Interaction Media Record

Defines the data related to the actual interaction:

- email message file
- Instant Message text file
- voice discussion recording

## 5.3 Geography

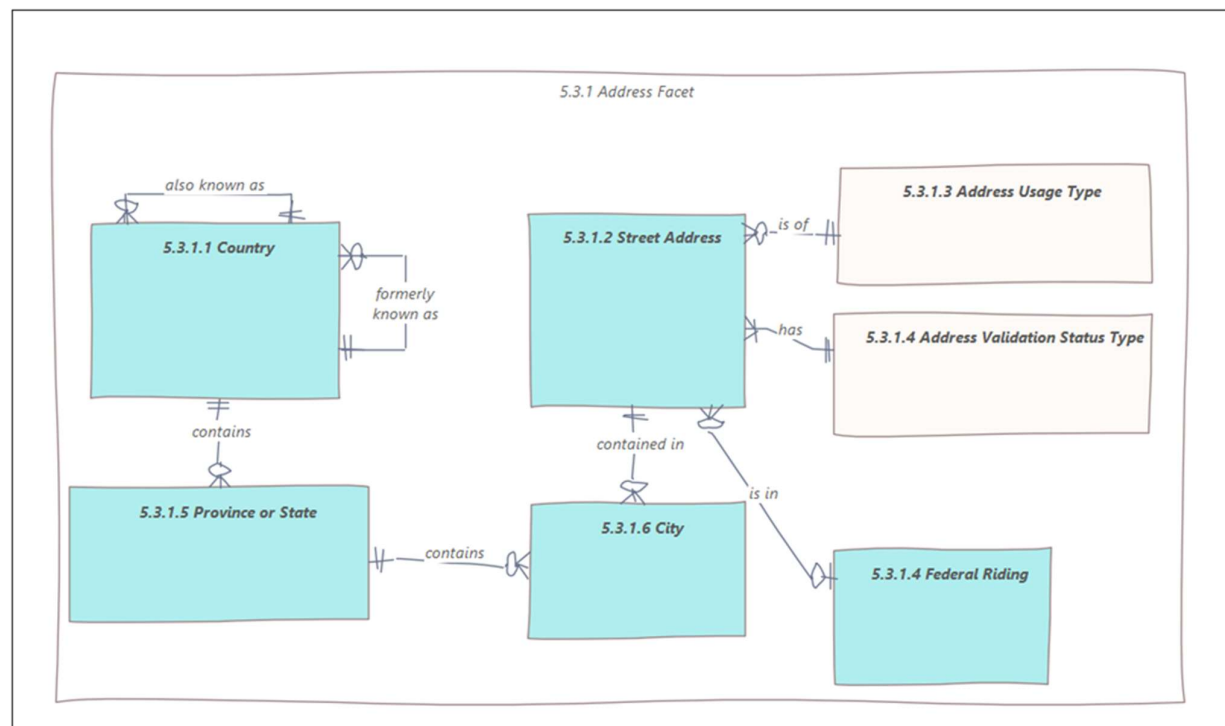
This Subject defines the geographic data that enables TGMS to identify physical locations that relate to people and organizations.

### 5.3.1 Address

This Facet defines the data that the TGMS business uses to manage information related to physical addresses for a person or an organization.

The definitions are compatible with the Canada Post standards

<https://www.canadapost.ca/tools/pg/manual/PGaddress-e.asp?ecid=murl10006450>



**5.3.1 Address - Simplified**

#### 5.3.1.1 Country

Reference table that defines the countries of the world.

#### 5.3.1.2 Street Address

Defines the physical street address of a person or organization.

#### 5.3.1.3 Address Usage Type

Defines the usage to which an address is put, for example:

- mailing address (e.g., financial address T4, correspondence address, permanent address in Canada)
- billing address
- shipping address

#### *5.3.1.4 Address Validation Status Type*

Defines whether an address has been validated, and flags the address based on a measure of validity.

#### *5.3.1.4 Federal Riding*

Defines an address as belonging to a federal electoral district boundary, based on Election Canada's Federal Electoral Districts.

#### *5.3.1.5 Province or State*

Defines the province or state sub-divisions of a country.

For Canada, the recommended codes are defined by the Reference Data Standard on Canadian provinces and territories (draft), which is available on the Open Government Portal

(<https://open.canada.ca/data/en/dataset/cd8fad92-b276-4250-972f-2d6c40ca04fa>)

#### *5.3.1.6 City*

Defines the official full name given to a municipality and recognized by the respective postal authority.

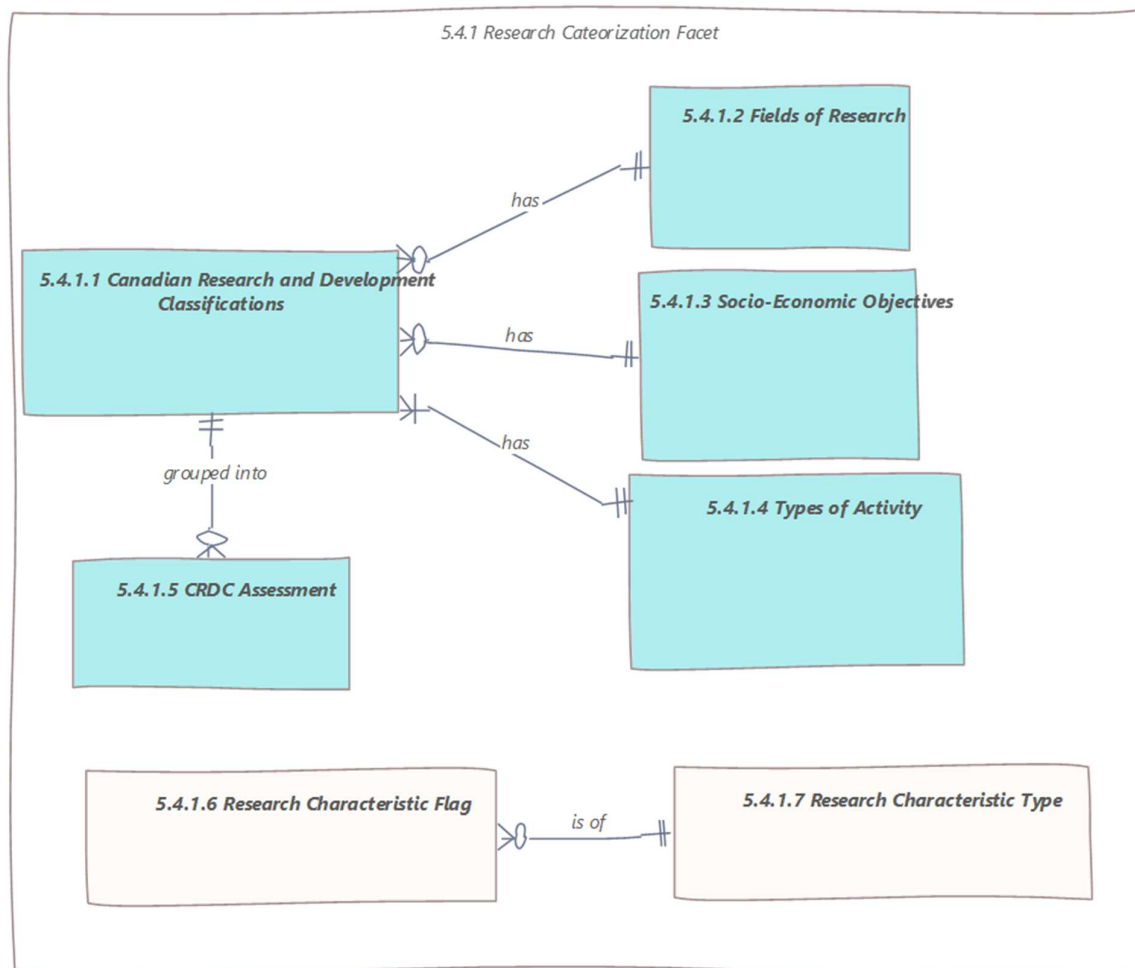
### *5.4 Academic Research and Institution Categories*

This Subject defines information used to categorize academic areas, research areas and academic institutions that are of interest to the TGMS business.

#### **5.4.1 Research Categorization**

This facet describes categorization schemes that define the nature and characteristics of research.





**5.4.1 Research Categorization - Simplified**

#### **5.4.1.1 Canadian Research and Development Classifications**

Defines the CRDC 2019, a collective name for a set of 3 related classifications developed for the measurement and analysis of research and experimental development undertaken in Canada. The classifications are:

- type of activity
- fields of research
- socio-economic objectives

This classification allows activities to be categorized according to the field of research based on the methodology used in the research and experimental development that is being considered. The categories in this classification include major fields of research and emerging areas of study.

#### **5.4.1.2 Fields of Research**

The Fields of Research allow R&D activities to be categorized according to the field of research; it is the methodology used in the R&D that is being considered. The categories within this classification include major fields of research based on the knowledge sources, the objects of interest, the methods and techniques being used.

The Fields of Research classification has four hierarchical levels consisting of Divisions at the broadest level while Groups, Classes and Subclasses represent increasingly detailed dissections of these categories. Resulting in a comprehensive list of fields of research, nearly 1500 in total, to reflect the current research

landscape in Canada. The Divisions and Groups levels are aligned with fields of research as portrayed in the Frascati Manual 2015.

Example proposed fields of research group codes and titles include:

- RDF101 Mathematics and statistics
- RDF102 Computer and information sciences
- RDF201 Civil engineering, industrial engineering, and related work
- RDF301 Basic medicine and life sciences
- RDF302 Clinical medicine

#### *5.4.1.3 Socio-Economic Objectives*

The Socio-Economic Objectives allow R&D activities to be categorized according to the purpose or outcome of the R&D as perceived by the data provider, who is most frequently the researcher. It consists of discrete economic, social, technological or scientific domains for identifying the principal purposes of the R&D. The attributes applied to the design of the socio-economic objective (SEO) classification entail a combination of processes, products and other social and environmental aspects of particular interest.

The SEO is a two level hierarchical classification, with Division at the broader level and Group forming the next level, for example:

Level Code Description

- Division RDS106 Industrial production and technology
- Group RDS10610 Information systems, technologies and services

#### *5.4.1.4 Types of Activity*

The structure and definition for the categories for Type of Activity align with the Frascati Manual 2015 definitions. It allows R&D activities to be categorized according to the type of research being undertaken, and it has a flat structure broken down into three groups, which are:

- Basic research: experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.
- Applied research: original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective.
- Experimental development: systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improve existing products or processes.

For example, a Field of Research hierarchical classification may be:

- Division RDF10 Natural sciences
- Group RDF101 Mathematics and statistics
- Class RDF10101 Pure mathematics
- Subclass (Field) RDF1010101 Algebra

#### 5.4.1.5 CRDC Assessment

Defines one or more CRDC categories that may be associated with a TGMS business concept (such as a Funding Opportunity, a Person, a Contribution, etc). The CRDC Assessment allows a TGMS business concept to be identified as corresponding to more than one discrete CRDC category, thereby allowing richer, more flexible and detailed tracking and reporting capabilities.

#### 5.4.1.6 Research Characteristic Flag

Defines special characteristics of a research project, such as:

- Human Subjects
- Animal Subjects
- Environmental Impact Assessment - Permit Designated Project
- Indigenous Research
- Activity Inside Canada
- Activity Outside Canada
- STEM cells
- Designated Project Dependent
- Research Creation

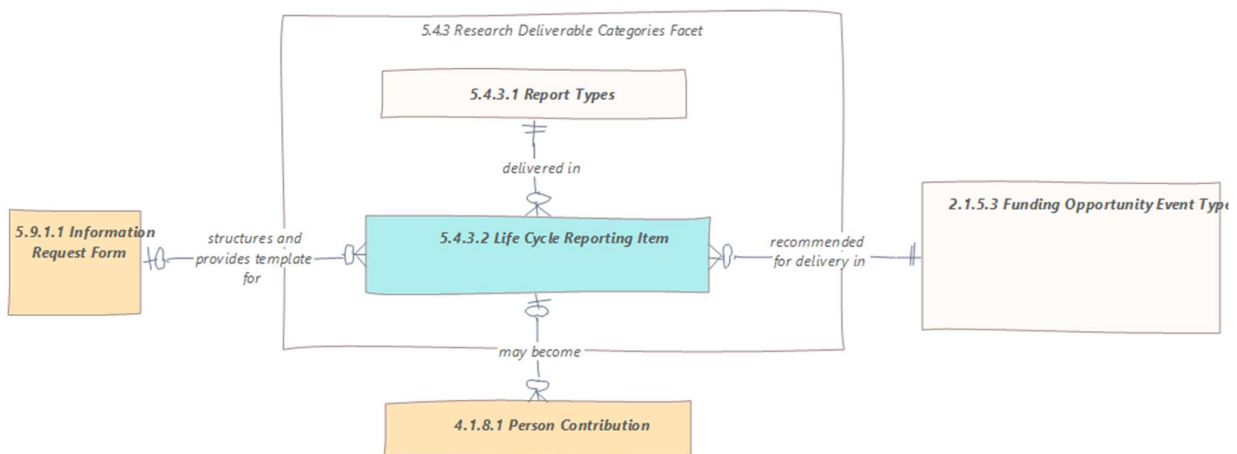
#### 5.4.1.7 Research Characteristic Type

Categorizes the types of Research Categorization Flags that are recognized by TGMS. Examples are:

- Ethical Consideration
- Environment Consideration
- Logistical Consideration
- Special Consideration

### 5.4.3 Research Deliverable Categories

This facet defines the categories of deliverable products that are produced throughout the delivery of a Funding Opportunity.



5.4.3 Research Deliverable Categories - Simplified

#### **5.4.3.1 Report Types**

Describes the types of Reports that support a Funding Opportunity. These reports may be provided by external or internal sources. For example:

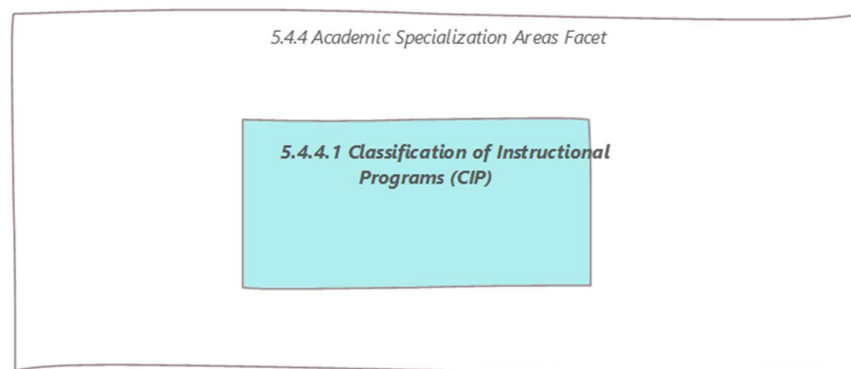
- Progress Report
- Final Report
- Reviewer Report
- Statement of Account
- Activity Report
- Final Statement of Account
- Notice of Receipt of Degree
- Proceedings Report
- Presentations
- Mid-term reports
- Partner reports on contributions
- Notice of Recommendation
- Notice of Decision

#### **5.4.3.2 Life Cycle Reporting Item**

Defines the set of reporting deliverables (Report Types) that are recommended to be delivered at each Funding Opportunity Life Cycle Stage. Each deliverable is specified as mandatory or optional for that Funding Opportunity Life Cycle Stage.

### **5.4.4 Academic Specialization Areas**

This facet manages information related to the definition of specialization areas in academic instruction.



**5.4.4 Academic Specialization Areas - Simplified**

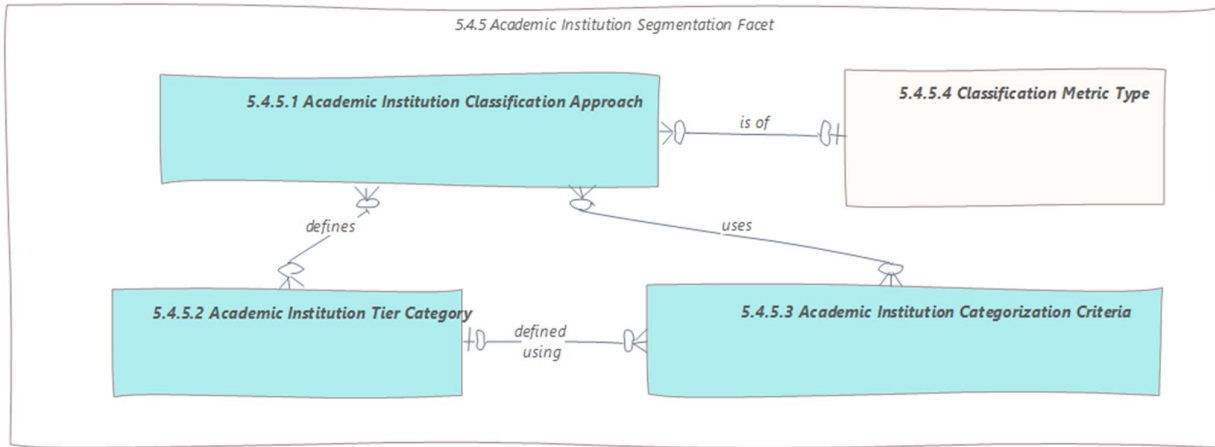
#### **5.4.4.1 Classification of Instructional Programs (CIP)**

Defines the Statistics Canada Classification of Instructional Programs (CIP), which is the Canadian standard used to classify instructional programs according to field of study.

<https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=299355>

### 5.4.5 Academic Institution Segmentation

This facet manages data related to the categorization or segmentation of academic institutions into Tiers or Groups. Tiers are based on various criteria, as defined by the Tri-agency criteria (such as size of faculty, or amount of funding awarded) or other external criteria (such as MacLeans' scales, U15, or StatsCan Sponsored Research expenditure, Sponsored Research expenditure as percent of general operating expenditure, or Number of doctoral programs).



**5.4.5 Academic Institution Segmentation - Simplified**

#### 5.4.5.1 Academic Institution Classification Approach

Defines the specific method of categorization that is used to classify an academic institution.

For example, categorization of size of institution could be based on one or more Academic Institution Classification metrics such as:

- Funding Received
- Number of full time staff
- Maclean's
- U15
- Statistics Canada (StatsCan)
- USRA

Classification schemes other than size could also be supported.

#### 5.4.5.2 Academic Institution Tier Category

Defines the category results supported by a Classification Approach. For example, the criteria defined by a set of classification criteria for institution size may result in use the following three-stage tier classification:

- Small
- Medium
- Large

#### 5.4.5.3 Academic Institution Categorization Criteria

Defines the criteria defined by a particular Academic Institution Classification Approach to categorize an academic institution into a Tier Category.

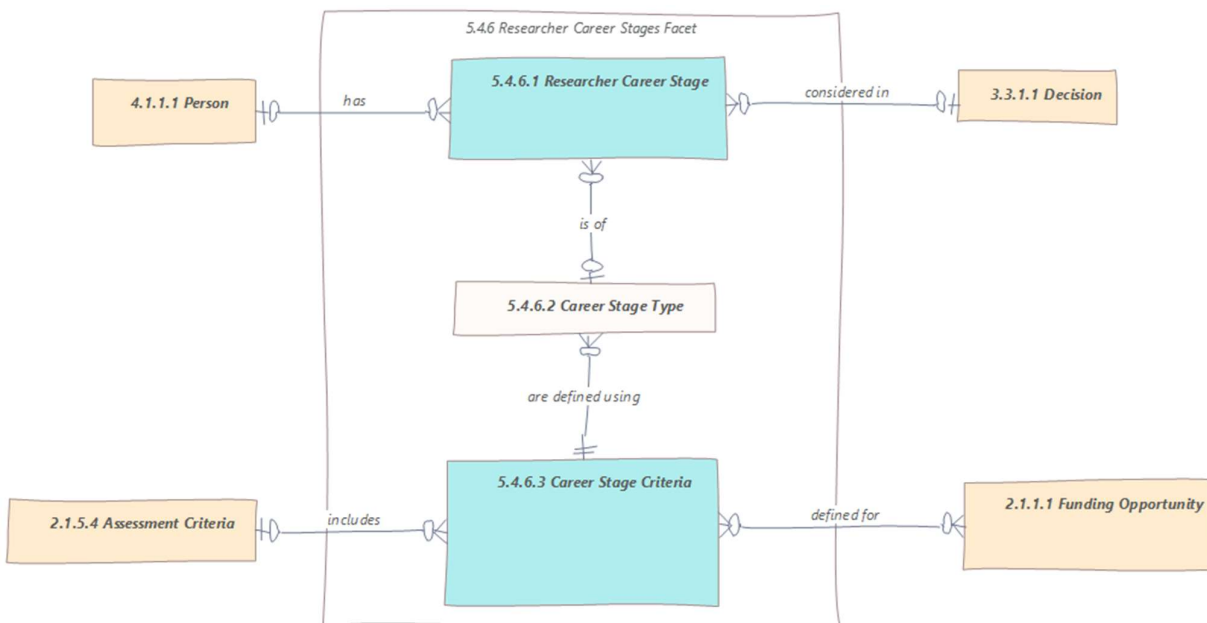
#### 5.4.5.4 Classification Metric Type

Defines the type of metric used as the basis for the tier structure of a 5.4.5.1 Academic Institution Classification Type. Examples are:

- total faculty count (academic staff)
- total annual NSERC funding
- total annual SSHRC funding
- total annual Tri-agency funding
- Sponsored Research expenditure
- Sponsored Research expenditure as percent of general operating expenditure
- number of doctoral programs
- number of graduate programs or number of graduate students

### 5.4.6 Researcher Career Stages

This facet manages data related to the recognized stages in the career of researchers. A Career Stage is the recognition of the professional experience that the person has achieved. The person's career stage evolves over time, attaining different levels of experience, and therefore shifting the researcher to different assessed career stages (where each career stage is defined based on specific criteria).



5.4.6 Researcher Career Stages - Simplified

#### 5.4.6.1 Researcher Career Stage

Defines the career stage of the researcher, i.e., the recognition of the professional experience that the person has achieved. The person's career stage evolves over time, attaining different levels of experience, and therefore different career stages (based on the criteria defined for each career stage).

#### 5.4.6.2 Career Stage Type

Defines the types of career stage to which an applicant can be assigned, for example:

- Early Career Researchers - applicants whose research career is assessed as being in a beginning stage

- Emerging scholars - applicants who have not successfully applied, as principal investigator or project director
- Established Researchers - applicants whose research career is assessed as being in a later (more senior) stage
- Established scholars - applicants who have established - or who, since the completion of their highest degree, has had the opportunity to establish—a record of research achievement

#### *5.4.6.3 Career Stage Criteria*

Defines the criteria used to determine the career stage to which a researcher is assigned, for example:

Early Career Researchers may be applicants who, at the time of application:

- were within five years of the date of their last degree
- were within five years of the start date of their first eligible position at a university and had no prior academic or non-academic independent research experience
- have held research-related appointments where the individual has the autonomy to conduct research independently
- have had less opportunity to make the same level of contributions to research or training as established researchers
- had held a full-time, independent research appointment for a period of up to five years (60 months)

Emerging scholars may be applicants who, at the time of application:

- have completed their highest degree no more than six years before the competition deadline; or
- have held a tenured or tenure-track post-secondary appointment for less than six years
- have held a post-secondary appointment, but never a tenure-track position
- have had their careers significantly interrupted or delayed for health or family reasons within the past six years

Established researchers may be applicants who, at the time of application:

- have held an independent academic position with a start date before the last five years (e.g., university faculty appointment)
- engages in research that is not under the direction of another individual
- supervises or co-supervises the research of students registered in an undergraduate or graduate degree program, or postdoctoral fellows

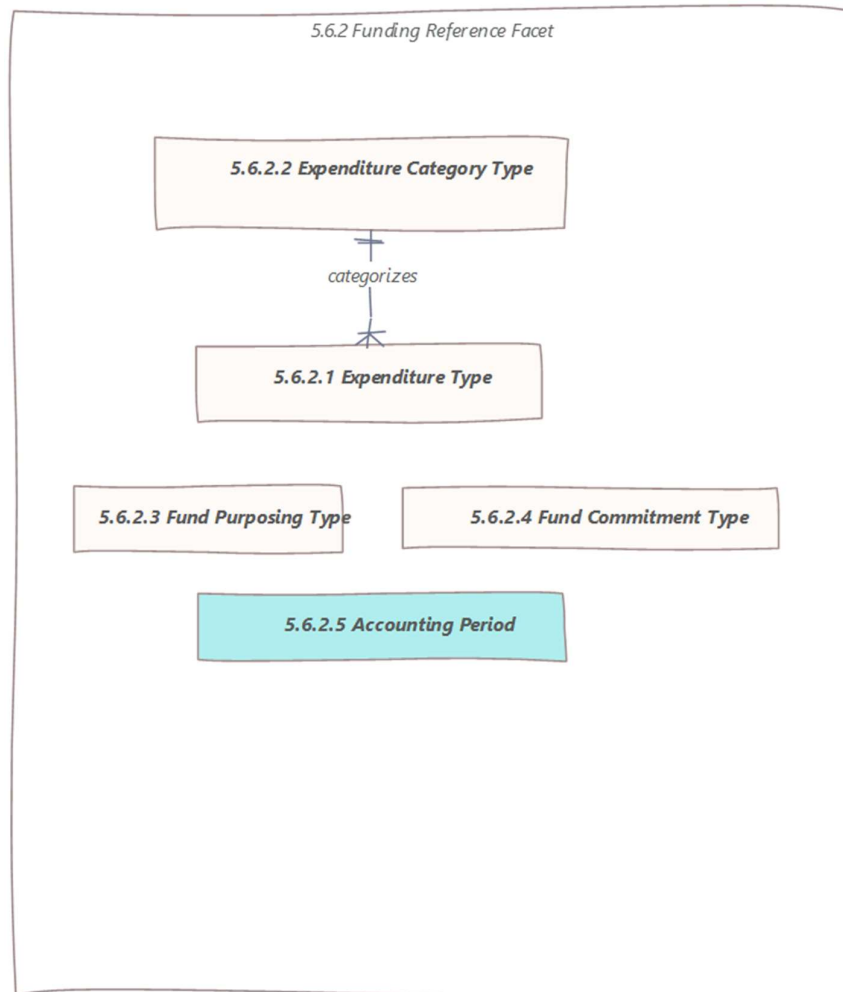
**Note:** any criteria that rely on time durations are measured to exclude leaves of absence. The window for being considered an Early Career Researcher is adjusted to include instances where a researcher had an acceptable delay in research (illness, parental leave, etc.).

## *5.6 Reference Tables*

This subject manages reference tables that are used across the TGMS business environment.

### *5.6.2 Funding Reference*

This facet defines reference data for categorizing or defining funding parameters.



**5.6.2 Funding Reference - Simplified**

### **5.6.2.1 Expenditure Type**

Lists the possible types of expenditures for which funding support is provided, for example:

- Operating Funds
- Equipment
- Maintenance
- Stipends
- SE Stipends
- Non-NSE Stipends
- Training Program Structure
- Travel
- Accommodation
- Living Expenses
- Salaries
- Developmental Funds (such as used by SSHRC for PG-Stage 1 application, up to \$20,000 to develop a full proposal)



#### *5.6.2.2 Expenditure Category Type*

Lists categories of expenditure types. For example:

- Managerial and administrative staff
- Technical and research staff
- Student interns
- Faculty release
- Purchase or rental (technical)

#### *5.6.2.3 Fund Purposing Type*

Describes how funding will be purposed in support of the project. Funding can be delivered as:

- Direct cost
- Indirect cost

#### *5.6.2.4 Fund Commitment Type*

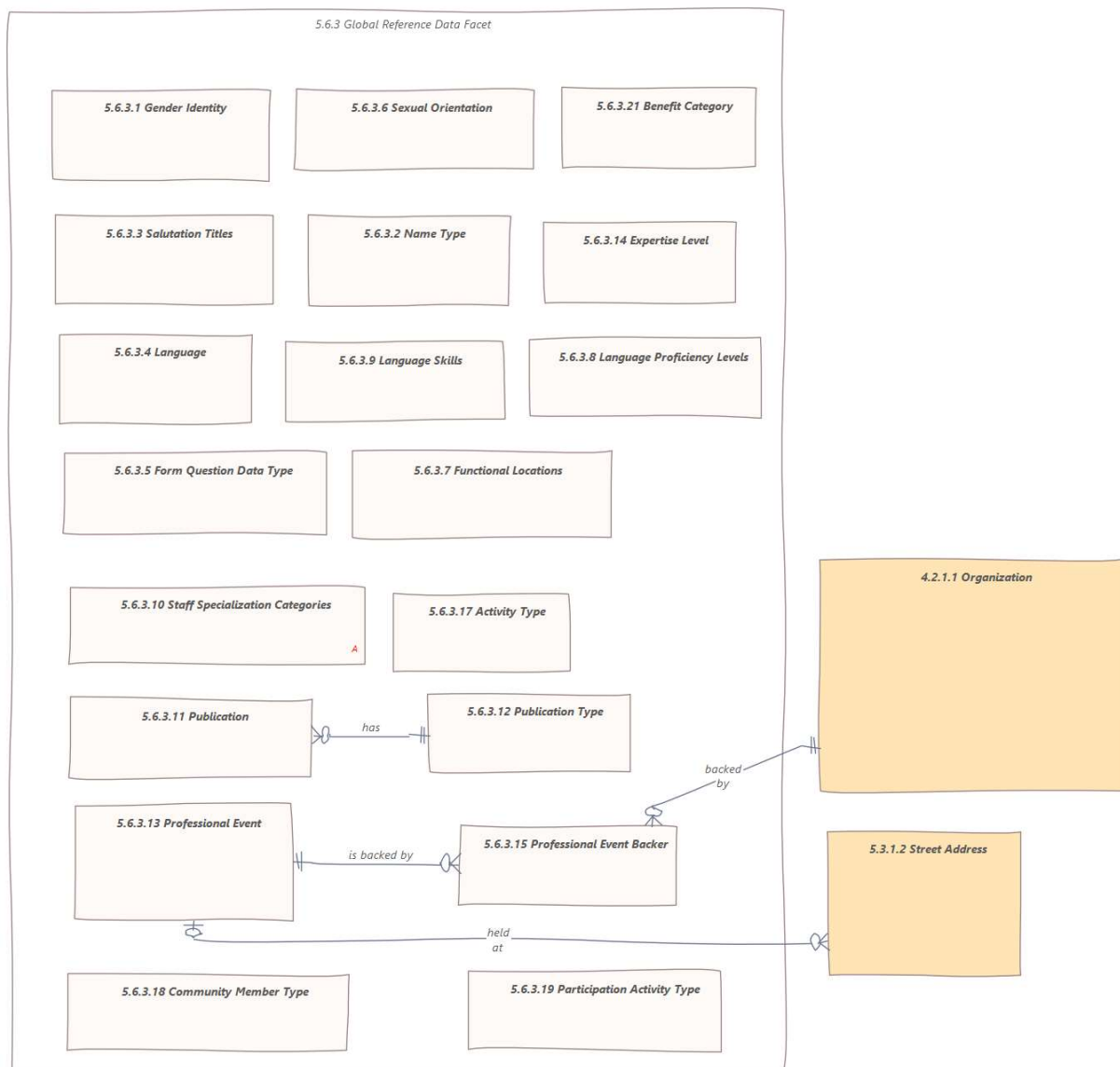
Describes whether funding is delivered as:

- Cash
- In-kind services

#### *5.6.2.5 Accounting Period*

Defines a period of time that covers certain accounting functions, which can be a calendar year or a fiscal year, but also a week, month, or quarter.

## 5.6.3 Global Reference Data



**5.6.3 Global Reference Data - simplified**

### 5.6.3.1 Gender Identity

Defines the gender with which a person self-identifies. CRC EDI has identified the following gender identities:

- Gender-fluid
- Man
- Non-binary
- Trans man
- Trans woman
- Two-Spirit
- Woman
- None of the above

#### *5.6.3.2 Name Type*

Reference table that defines whether a name is a:

- first name,
- middle name, or
- last name.

#### *5.6.3.3 Salutation Titles*

Defines salutations that may be used in communications with a Person (e.g., Mr., Ms., Professor, Colonel, Minister, Doctor). Salutations include gender-specific values as required/feasible.

#### *5.6.3.4 Language*

Defines languages that may be used in communications, or as linguistic preferences for verbal or written communications.

#### *5.6.3.5 Form Question Data Type*

Reference table that defines the possible data types for the response to a form question. For example:

- Text
- Date
- Boolean
- Number
- Integer
- Rating Scale
- Top/bottom
- Code (lookup to another reference table)

#### *5.6.3.6 Sexual Orientation*

Defines sexual orientation, based on the following CRC EDI categories:

- Asexual
- Bisexual
- Gay
- Heterosexual
- Lesbian
- Pansexual
- Queer
- Two-Spirit
- None of the above

#### *5.6.3.7 Functional Locations*

Describes the types of locations at which individuals may be found. Examples are:

- Home
- Office
- Laboratory
- Mobile
- Car
- Assistant

#### *5.6.3.8 Language Proficiency Levels*

Defines the ability of a person to demonstrate language skills. Proficiency levels are:

- A (beginner)
- B (intermediate)
- C (advanced)

#### *5.6.3.9 Language Skills*

Defines the person's abilities to use a language. Applicable skills are:

- Reading
- Writing
- Oral Interaction

#### *5.6.3.10 Staff Specialization Categories*

Defines the high-level specialization areas of employees in an organization, such as:

- Management
- Technical Personnel
- Scientists

#### *5.6.3.11 Publication*

Defines the journal, magazine, or other published medium in which a contribution may be found. Examples are:

- Nature
- Science
- Canadian Journal of Physics
- Biological Reviews
- Biophysical Journal
- Applied Physics Letters
- published proceedings of a conference or seminar

- book title

#### *5.6.3.12 Publication Type*

This entity lists the possible types of publications a person has created as part of their career to research and advancement of knowledge. For example:

- Journal Articles
- Journal Issues
- Books
- Book Chapters
- Book Reviews
- Translations
- Thesis/Dissertation
- Supervised Student Publications
- Litigations
- Newspaper Articles
- Newsletter Articles
- Encyclopedia Entries
- Magazine Entries
- Dictionary Entries
- Reports
- Working Papers
- Manuals
- Online Resources
- Tests
- Clinical Care Guidelines
- Conference Publications

#### *5.6.3.13 Professional Event*

Defines an event in which professionals congregate to discuss business matters, or present scholarly papers. For example:

- conferences
- seminars
- workshops

#### *5.6.3.14 Expertise Level*

This entity lists the possible levels of expertise for an activity, for example:

- Advanced
- Intermediate
- Entry Level

#### *5.6.3.15 Professional Event Backer*

Defines the organization(s) that sponsored or held a professional event.

#### *5.6.3.16 Person Membership Role Type*

Defines the roles that can be filled by a Person as a member of a committee or association/society. For example:

- Secretary
- Staff
- Committee Chair
- Committee Member
- Scientific Officer
- Observer
- Champion (EDI)

#### *5.6.3.17 Activity Type*

This entity lists categories for activity types, for example:

- Teaching Activity
- Administrative Activity
- Editorial Activity
- Mentoring Activity
- Peer Review Activity (funding application assessment)
- Expert Witness Review Activity
- Journal Review Activity
- Knowledge Dissemination Activity
- Event Management/Administrative Activity
- Participation Activity
- Researcher Activity

#### *5.6.3.18 Community Member Type*

Segments the TGMS community into types of community members, for example:

- researchers
- knowledge workers

### 5.6.3.19 Participation Activity Type

This entity lists the possible types of participation activities a person has conducted, for example:

- Volunteer activities
- Science/research promotion
- Indigenous knowledge & research
- Traditional knowledge and cultural foundations
- Communities and community outreach, or public outreach activities
- Community-led research
- Equity, Diversity and Inclusion (EDI) activities in the research community

### 5.6.3.20 Relationship Administrative Role Type

Defines the roles that a person plays in representing the Organization to the Tri-agency, for example:

- RGO – Research Grants Officer
- SLO – Scholarship (Student) Liaison Officer
- FBO – Financial Business Officer
- FBO (Grants)
- FBO (Awards)

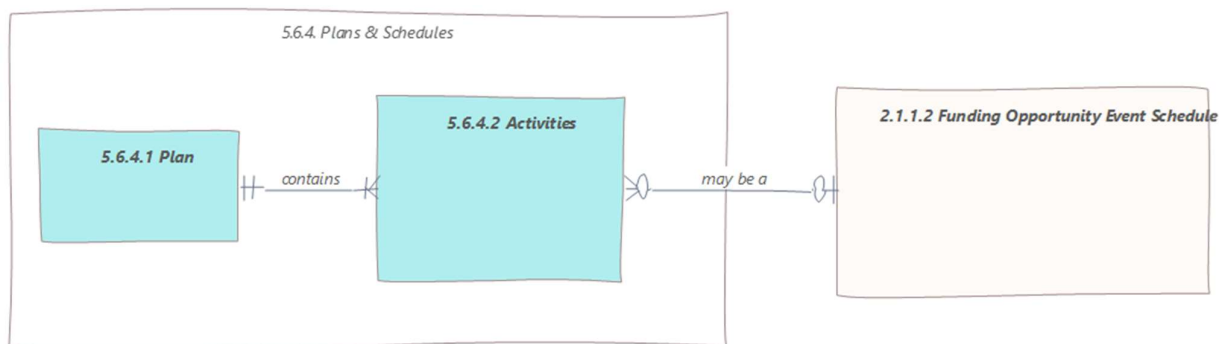
These relationships and accountabilities are typically defined in the agreement signed between the Organization and the Tri-agency. Some other roles and accountabilities could be developed, which are not specified in the agreement.

Optionally, the type may also specify an agency-specific accountability, for example:

- RGO (SSHRC Programs)
- RGO (NSERC Programs)

NOTE: get finance to fill us in on more details.

## 5.6.4 Plans and Schedules



5.6.4 Plans and Schedules - Simplified

#### ***5.6.4.1 Plan***

Defines a plan that has been defined for a TGMS business activity, for example:

- an applicant's proposed plan for funded research
- a Tri-agency plan for competitions in a funding cycle
- a Tri-agency plan for assessing applications in a funding cycle
- a Tri-agency plan for funding milestones for an award

#### ***5.6.4.2 Activities***

Describes scheduled activities in a plan, for example:

- Tri-agency start and end dates for application periods
- Tri-agency milestones such as funding points, or deliverable due dates
- A researcher's planned start dates for research projects

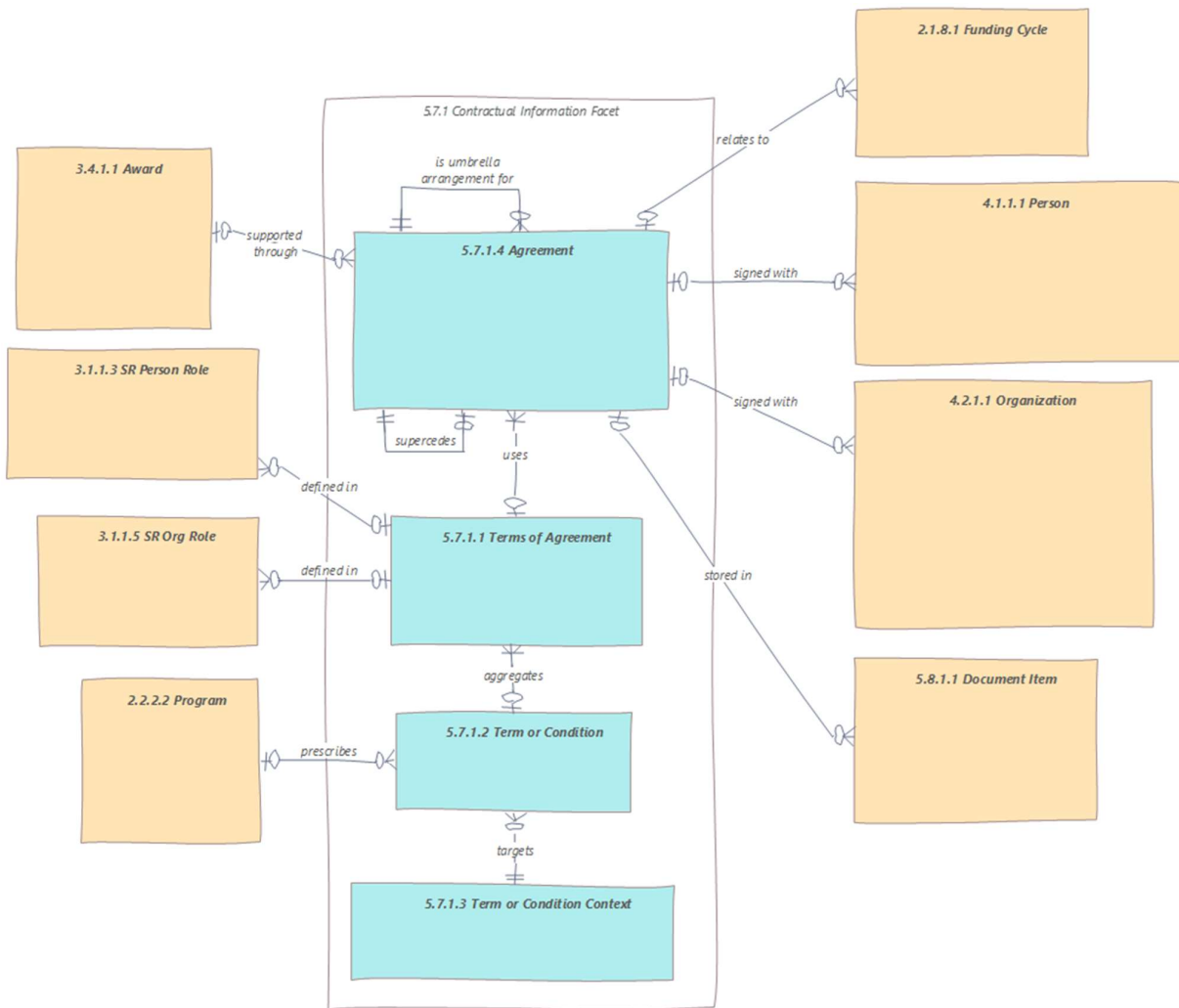
### ***5.7 Legal Information***

This Subject manages the data that facilitates and tracks the creation of legal documentation (such as contractual arrangements and agreements) within the TGMS business environment.

#### ***5.7.1 Contractual Information***

This facet defines the information required in order to enable contractual arrangements to be created in the TGMS business environment.





**5.7.1 Contractual Information - Simplified**

### 5.7.1.1 Terms of Agreement

Defines a set of standard Terms and Conditions that are aggregated for use in a particular context, with a particular category of Person or Organization to whom the Tri-Agency is offering services.

### 5.7.1.2 Term or Condition

Defines a set of legally binding rules (i.e., clauses or provisions) that a Person or Organization must agree to, in order to use the services of a funding agency.

A Term or Condition is a specification of a set of rules as prescribed by the Program, and may include Terms and Conditions for:

- Supporting Organizations
- Applicants
- Award Holders
- the Scholarships Liaison Officer

For example, Persons and Organizations may agree to abide by terms of service that constrain:

- usage of an agency's portal
- applying for a funding opportunity

- holding an award

#### *5.7.1.3 Term or Condition Context*

Defines the context within which the Term or Condition is intended to apply. For example, TGMS terms and conditions may relate to:

- Funding applications (e.g., constraints on Tri-Agency services related to applicants' submission of applications)
- Persons (e.g., constraints related to Tri-Agency services that are offered directly to a Person)
- Organizations (e.g., rules related to Tri-Agency services that are offered directly to an Organization)
- Awards (e.g., stipulations related to Tri-Agency services related to the award of funding to an applicant)

#### *5.7.1.4 Agreement*

Defines the information related to the legal arrangements (agreements) to which the Person or Organization has agreed. Some legal arrangements are legally binding (e.g., contracts), whereas others are not (e.g., Memoranda of Understanding).

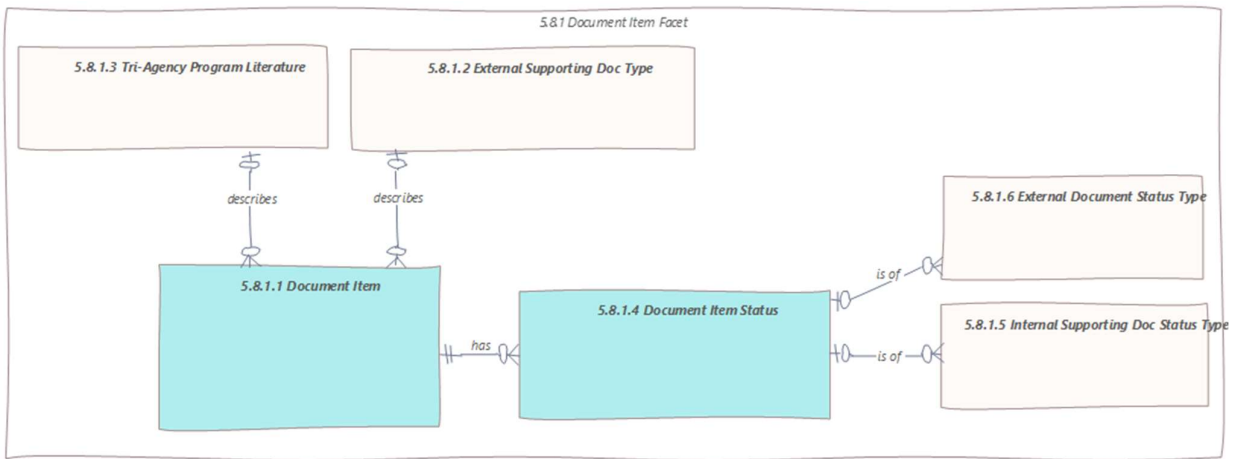
Examples of Agreements are:

- Partnership Agreements
- [Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers](#)
- <https://cihr-irsc.gc.ca/e/46378.html>College of Reviewers Membership Agreement
- Memoranda of Understanding
- Grant Agreement
- Consortium Agreement
- Joint Funding Agreement
- Agreement Renewals
- Direct Payment Grant Agreement
- Cost-sharing Agreements
- Umbrella Agreements
- Agreement Addendums and Amendments
- Intent to Partner Letter

### *5.8 Document Records*

This Subject manages documents received by, or created by the Tri-Agency in the course of managing the TGMS business.

#### *5.8.1 Document Item*



**5.8.1 Document Item - Simplified**

### 5.8.1.1 Document Item

Defines a document that was:

- provided by an external party, or
- generated by the Tri-Agency to support an activity or service,

This document may be identified as a corporate record, based on the applicable Distribution Authority and Information Management standards. The Document Item ID is the unique document management system identifier.

### 5.8.1.2 External Supporting Doc Type

Defines the types of supporting documents that are received from External Organizations. The different document types will depend on the context for the documents. For example, Funding Requests will require:

- Researchers' Letters of Intent
- Research Proposal
- Proof of Canadian Citizenship
- Transcripts
- Letters of support
- Financial statements

### 5.8.1.3 Tri-Agency Program Literature

Defines publications that the agencies produce and distributes for consumption by external Organizations. Examples are:

- Program Literature
- Grants Competition Results
- Notifications
- Reports
- Internal Audits
- Program Evaluations

- Plans, Priorities and Performance
- Performance and Service Standards
- Quarterly Financial Reports
- Program Officer Summary of Reviews (CRC)

#### *5.8.1.4 Document Item Status*

Defines the current and past status of a Document Item.

#### *5.8.1.5 Internal Supporting Doc Status Type*

Defines the status that can be applied to documents prepared by the agencies for external consumption. Examples are:

- Pending publication approval
- Approved for publication
- Published (Released)
- Removed (Expired)

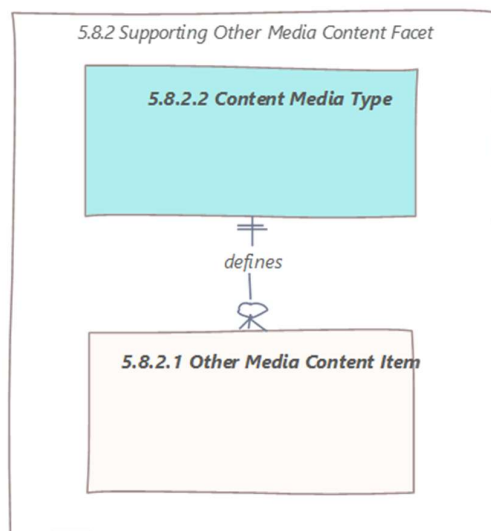
#### *5.8.1.6 External Document Status Type*

Defines the status that can be applied to a document that originated from an external organization. Examples are:

- Received
- Expired

(no doubt there are other IM standards-based statuses.

## **5.8.2 Supporting Other Media Content**



**5.8.2 Supporting Other Media Content - Simplified**

#### ***5.8.2.1 Other Media Content Item***

Defines an interaction between TGMS and an external party, that is not textual (i.e., is an alternate medium such as voice, or video interaction). For example, the Other Media Content Item is a file such as an mpg, or avi, or mp4 file type that contains the non-textual interaction.

This Other Media Content Item file may be identified as a corporate record, based on the applicable Distribution Authority and Information Management standards. The Other Media Content Item ID is the unique document management system identifier.

#### ***5.8.2.2 Content Media Type***

Defines the Content Media in terms of the type of media, for example:

- voice recording
- video recording
- Software (whether source code or executable)
- Dataset

### ***5.9 Information Collection***

This Subject manages the data required in order to perform information gathering activities using pre-defined (or standardized) forms. Such activities include:

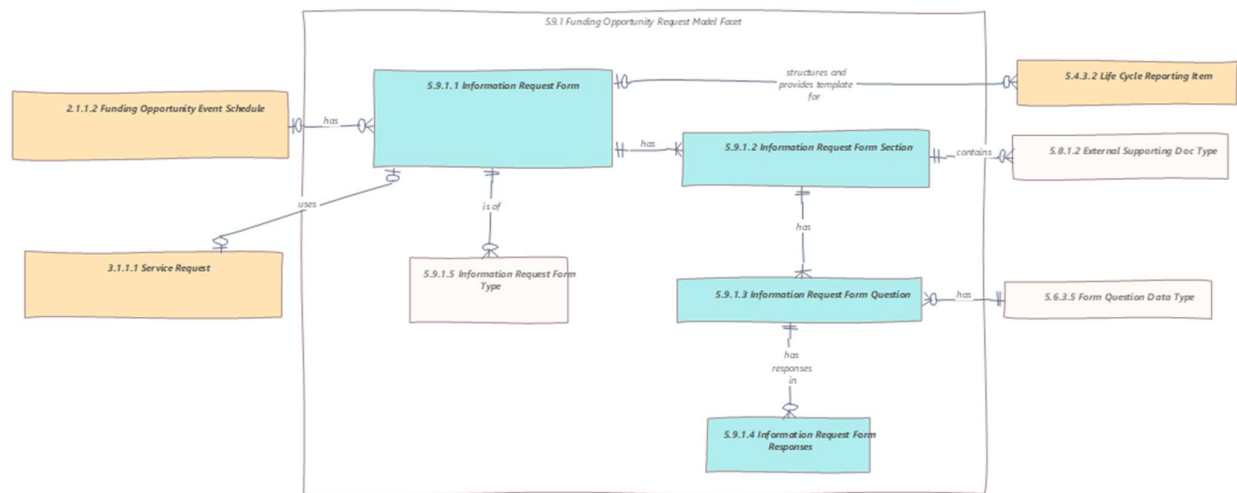
- collecting TGMS business information from external sources using information forms;
- supporting the conduct of internal business processes, which require information be collected using information forms.

#### ***5.9.1 Information Request Form***

This Facet defines the generic instrument for TGMS to gather information concerning such services as:

- Funding Requests
- Appeals
- Amendments
- Assessments (e.g., funding or eligibility and other assessments)
- Final Reports

The facet enables TGMS to dynamically define forms containing questions, whose responses will be required in order to deliver TGMS services.



**5.9.1 Information Request Form - Simplified**

### 5.9.1.1 Information Request Form

Defines the structure of the form that requests information related to a TGMS service.

### 5.9.1.2 Information Request Form Section

A section consists of a series of related questions within an Information Request Form.

### 5.9.1.3 Information Request Form Question

Lists questions that form part of the Information Request.

Some questions may offer a list of choices from existing reference tables, e.g. Country

### 5.9.1.4 Information Request Form Responses

Captures the data submitted in response to the questions defined in the Information Request Form.

### 5.9.1.5 Information Request Form Type

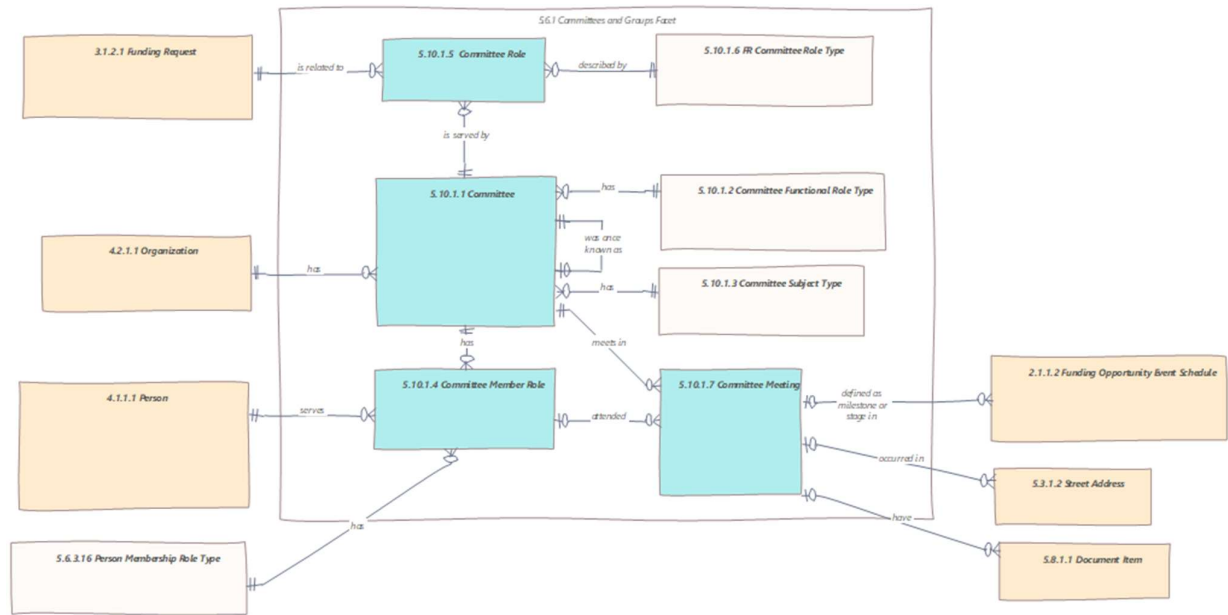
Defines the nature of the information request, or the TGMS service for which the form is used. For example:

- Funding Requests
- Institutional Eligibility Requests
- Assessments
- Appeals
- Amendments
- Final Reports

## 5.10 Committees and Groups

This Subject manages the data required in order to identify and manage Tri-agency committees and groups that play a role in the TGMS business. The information includes definition of the committee's roles and responsibilities, its members' roles, its membership, as well as its meeting calendar.

## 5.10.1 Committees and Groups



**5.10.1 Committees and Groups - Simplified**

### 5.10.1.1 Committee

A group of people who serve roles towards a common goal/purpose/activity. A Committee can be a Tri-Agency Committee or an external committee.

### 5.10.1.2 Committee Functional Role Type

Defines the type of the committee, based on its roles. For example, a committee may be one of:

- Standing
- Selection
- Screening
- Advisory
- Council
- Achievement Review
- Liaison committee

### 5.10.1.3 Committee Subject Type

Defines the subject area that the committee was formed to address. Examples are:

- Policy Maker
- Grants
- Strategic Project Selection Panels
- Research Partnerships
- Congress/Conference

- Fellowship/Scholarships
- Journal
- Site Visit

#### *5.10.1.4 Committee Member Role*

This entity associates persons with committees and their role in that committee

#### *5.10.1.5 Committee Role*

Describes the role a committee takes in a funding request or an assessment of a funding request, for example:

- suggested primary peer review committee
- suggested secondary peer review committee
- assigned committee

#### *5.10.1.6 FR Committee Role Type*

List of values to describe the possible roles a committee can take in the funding request, for example:

- Primary Suggested Committee
- Secondary Suggested Committee
- Assigned Committee

#### *5.10.1.7 Committee Meeting*

Defines meetings held by a committee.

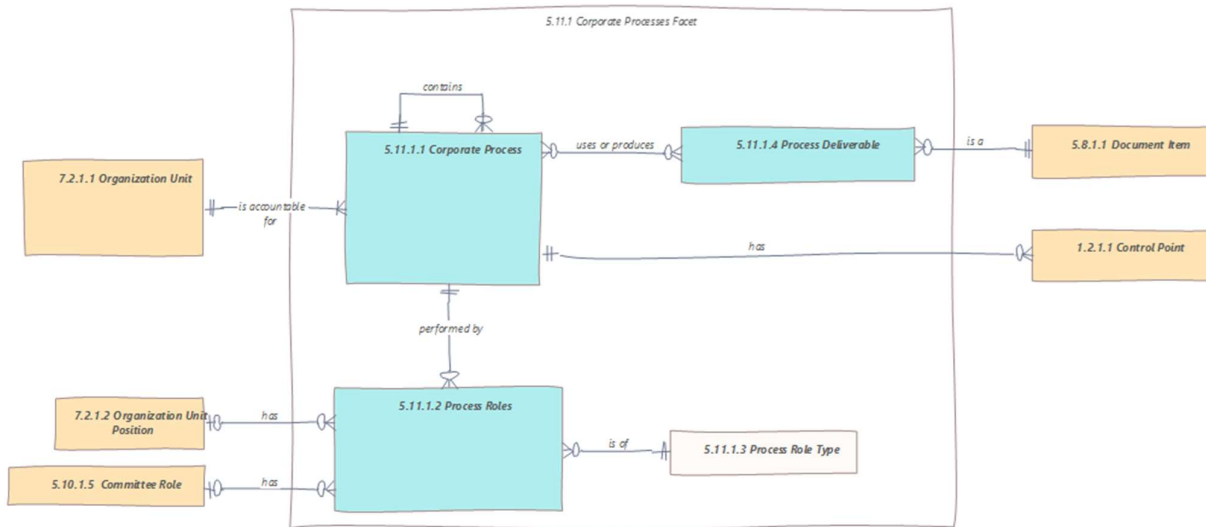
### *5.11 Business Processes*

This Subject manages the data required in order to define, conduct and support business processes. Included is a definition of the roles of corporate resources and committees who should participate in the business processes, as well as defining the authoritative entity for each business process.

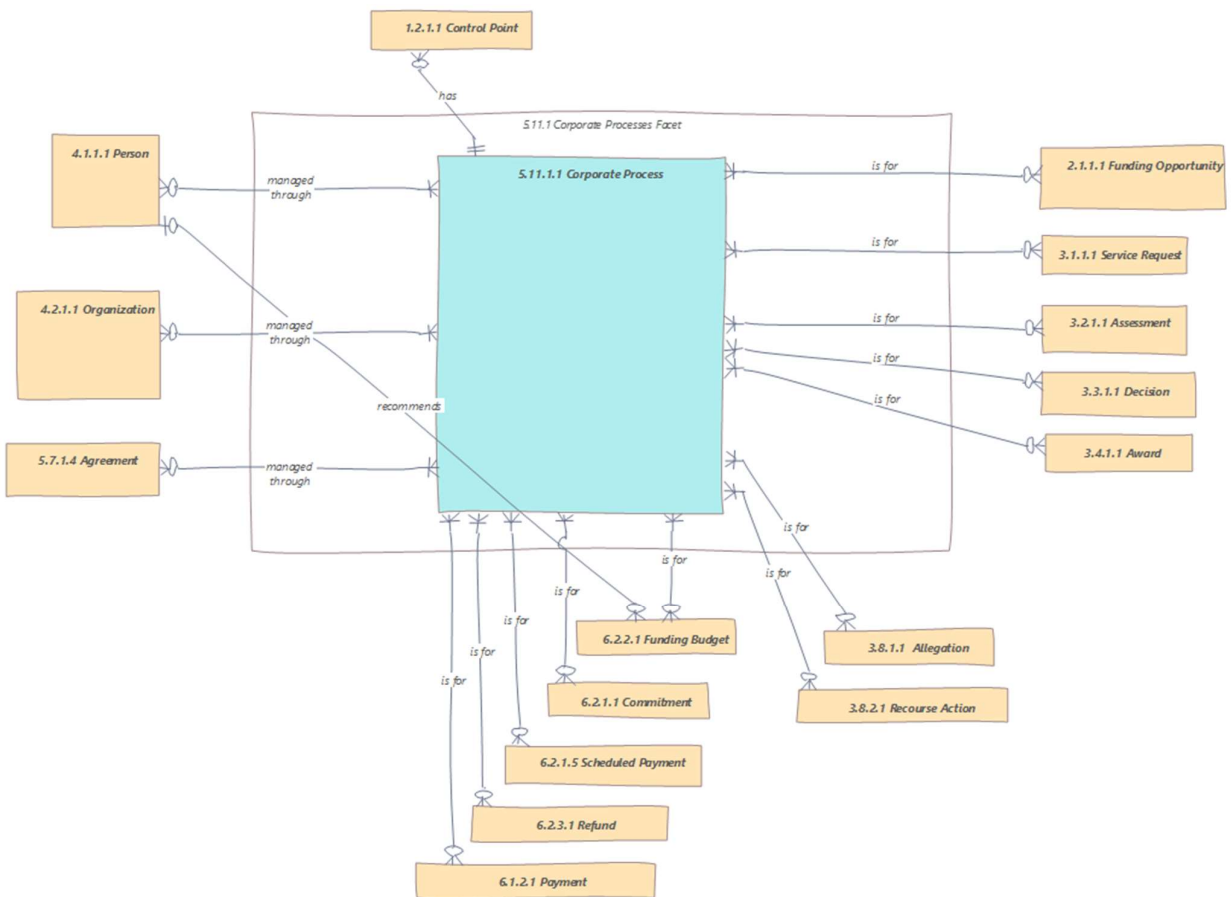
#### *5.11.1 Corporate Processes*

This facet manages the data required in order to define, conduct and support corporate business processes.





**5.11.1 Corporate Processes (Page 1) - Simplified**



**5.11.1 Corporate Processes (Page 2) - Simplified**

### 5.11.1.1 Corporate Process

Defines the business processes and sub-processes that are the accountability of an organizational unit, for example:

- Grants and Awards Payments
- Grants and Awards results are transferred to Finance
- G&A Program Launch and Competition Management

- Prepare Funding Opportunity
- Validate Applicant and Application
- Manage Application Review
- Approve Competition Results
- Release Competition Results

#### *5.11.1.2 Process Roles*

Defines the roles that an organization unit position or committee plays in the execution of a specific corporate process.

#### *5.11.1.3 Process Role Type*

Defines the category of role that an organization unit position can play in the execution of a corporate process, for example:

- Program Coordinator
- Competition Manager
- Responsibility Centre Manager
- Budget Holder
- Program Delivery Coordinator
- Grants and Awards Officers (GAO)
- Senior Accounting Officer/Financial Officer
- Lead/Manager
- Financial Advisor
- Program Staff
- Reviewer
- Auditor
- Contact Center/VB Secretariat

#### *5.11.1.4 Process Deliverable*

Defines specific documents that are required in order to either complete a business process, or to review and approve a control point in a business process. For example:

- FAA Section 34 approval
- Application Intake Checklist
- Application Change Request Form (2.5a)
- Financial Template/Funding Table (FT)
- Authorization for Funding Form (AFF)
- Intent to Partner

- Funding Commitment Form (FCF)
- Strategic Investment Plan (SIP)
- Briefing Notes for key committees (such as Sub-Committee on Implementation and Oversight (SCIO) and Science Council (SC))
- Payment

## 6. Finance Domain

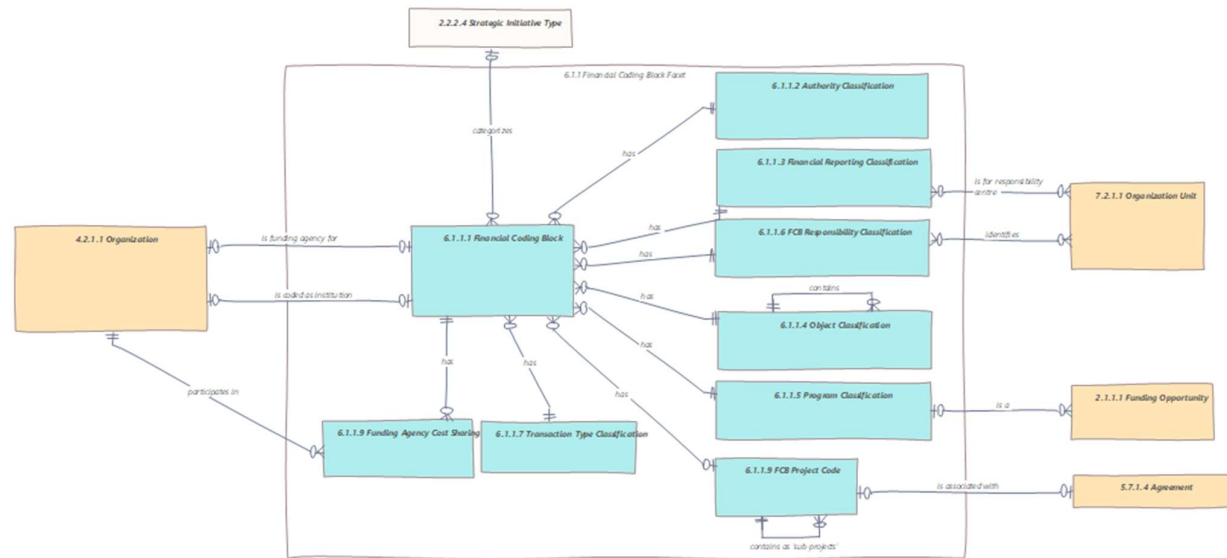
This Domain manages data related to the maintenance of the financial books of the organization.

### 6.1 Financial Transactions

This subject manages information that is used to categorize and execute financial transactions.

#### 6.1.1 Financial Coding

This facet manages data related to the structure and usage of financial codes that are used in the financial coding block of financial transactions.



6.1.1 Financial Coding - Simplified

##### 6.1.1.1 Financial Coding Block

Defines the financial classification structure to be used in a given financial transaction.

##### 6.1.1.2 Authority Classification

Is the authority (parliamentary appropriation (vote), statute or other legislative authority) under which the financial transaction is authorized. It also identifies whether the transaction is budgetary or non-budgetary and statutory or non-statutory. This may also be a sub-division of a Vote or Parliamentary Appropriation.

Examples of Authority Classifications (also termed 'Allotments'), are:

- Operating Expenditures – Salaries
- Adjudicated clinical trials
- Addressing emergent priorities
- CLSA – COVID-19
- Internal Support Services
- Refunds Of Program Expenses
- Donations
- NATO Science Fellowships

Please refer to the following sources:

- <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32529>
- CIHR Financial Coding Manual 2020-21
- NSERC SSHRC Full Chart of Accounts

#### *6.1.1.3 Financial Reporting Classification*

Identifies the relevant asset, liability, equity, revenue or expense account and is used to maintain the accounts in the “Receiver General-General Ledger” and to prepare financial statements and the Public Accounts of Canada.

Please refer to the following sources:

- <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32529>
- CIHR Financial Coding Manual 2020-21
- NSERC SSHRC Full Chart of Accounts

#### *6.1.1.4 Object Classification*

Identifies the type of goods or services acquired, the transfer payments made, the source of receipts or the cause of increases or decreases in assets and liabilities, providing a detailed classification of the financial transactions for accounting purposes.

Examples are as follows:

- Regular Salaries - Full Time Indeterminate employees
- Leave Payment in Lieu of Holiday
- Bilingual Bonus
- Awards and Rewards
- Data Communication Services
- Financial Statements Preparation

Please refer to the following sources:

- <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32529>
- CIHR Financial Coding Manual 2020-21

#### *6.1.1.5 Program Classification*

Identifies the core responsibility within the Departmental Results Framework to which a financial transaction is associated. When applicable, the core responsibility must be broken down further to the Program Inventory to capture the lowest level.

Examples are:

- Investigator-Initiated Research
- Training and Career Support
- Research in Priority Areas
- Management and Oversight

- Information Technology

Please refer to the following sources:

<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32529>

CIHR Financial Coding Manual 2020-21

#### *6.1.1.6 FCB Responsibility Classification*

Identifies the organizational unit that is responsible and accountable for the transaction. The responsibility structure must be consistent with the organizational structure to allow aggregation at the department or agency level.

Examples of FCB Responsibility Classifications are:

- President's Office
- Associate VP, Research Programs - Operations
- Program Design and Delivery, Director General's Office
- Chief Data Office
- VP, Research Grant & Scholarships

Please refer to the following sources:

<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32529>

CIHR Financial Coding Manual 2020-21

NSERC SSHRC Full Chart of Accounts

#### *6.1.1.7 Transaction Type Classification*

Identifies transactions as being either internal to the government or external (i.e., related to parties outside the Government of Canada reporting entity), allowing the government to produce consolidated financial statements that exclude internal transactions.

Please refer to the following source:

<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32529>

#### *6.1.1.9 FCB Project Code*

Defines the Project and Sub-Project codes used to designate activities with which the organization is involved, for example:

- Trust Accounts
- Partnership Agreements
- Research and Development
- Health Research Partnership Fund
- Research Themes
- Partnerships

- Networks Centers of Excellence
- Grants
- Scholarships

Each project may include one or more sub-projects.

CIHR Financial Coding Manual 2020-21

NSERC SSHRC Full Chart of Accounts

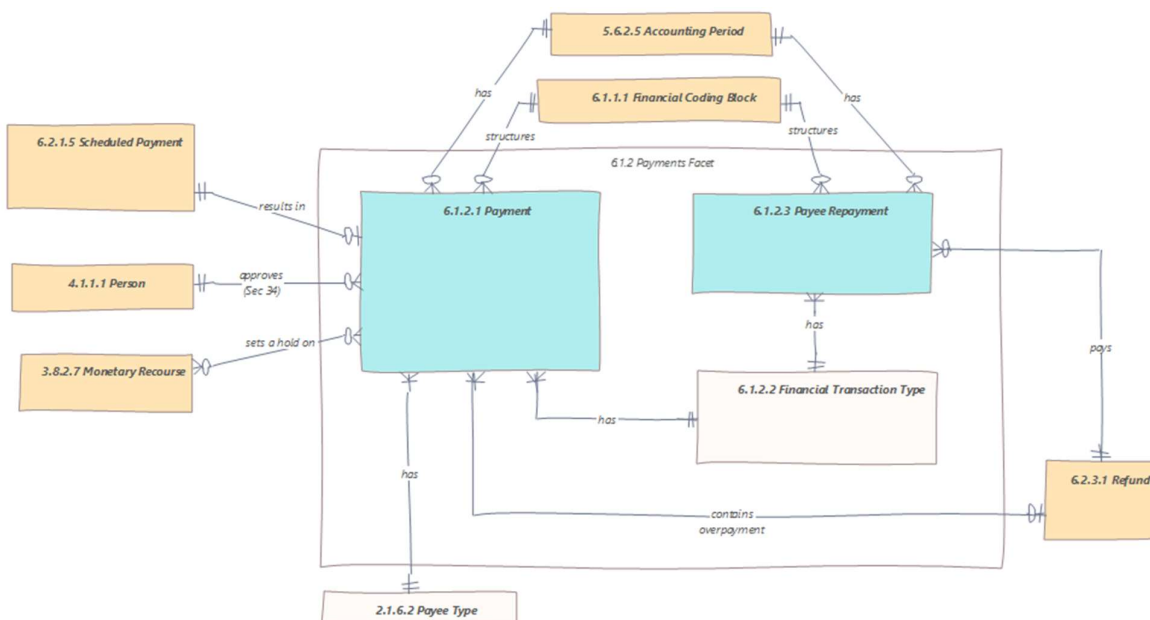
### 6.1.1.9 Funding Agency Cost Sharing

Defines the percentage distribution of a cost between funding agencies. For example:

- NSERC 10% - SSHRC 90%
- NSERC 65% - SSHRC 15% - CIHR 20%

## 6.1.2 Payments

This facet manages data related to the payments that are executed as part of delivering the TGMS business.



**6.1.2 Payments - Simplified**

### 6.1.2.1 Payment

Defines a physical payment that has been approved for disbursement or receipt.

### 6.1.2.2 Financial Transaction Type

Defines whether a financial transaction is:

- Soft (encumbered) commitment; or
- Hard (outright) commitment
- Outgoing Payment
- Incoming Payment

### 6.1.2.3 Payee Repayment

Defines the repayment made by the payee, in response to a funding agency overpayment.

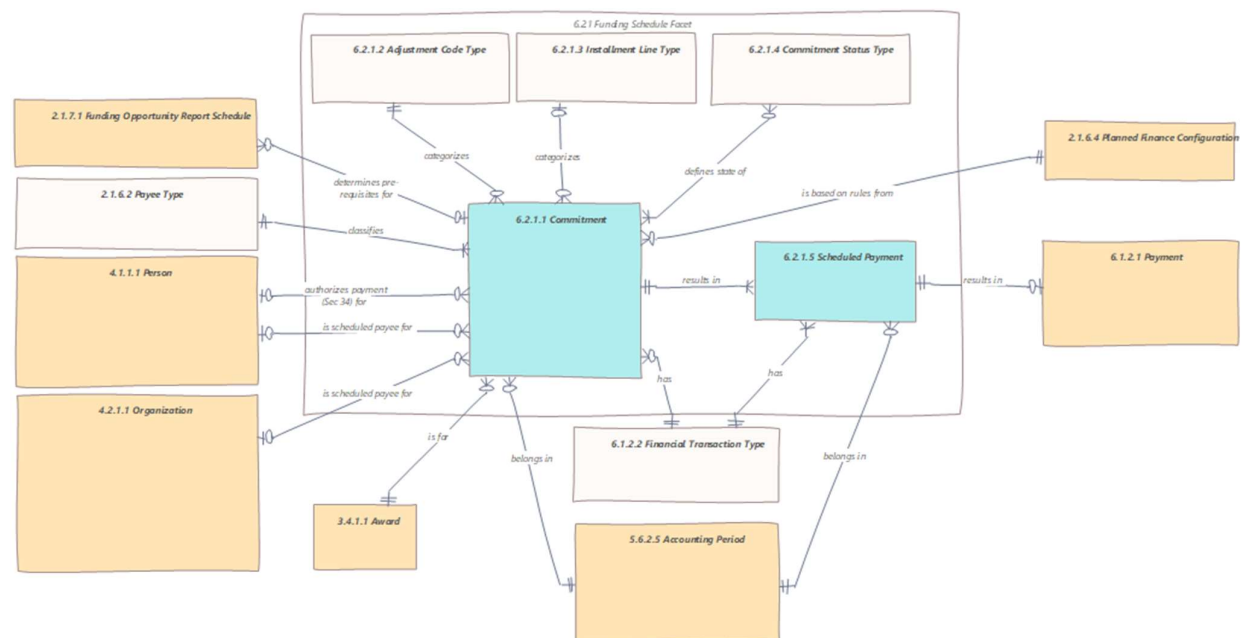
## 6.2 Funding

This Subject defines the information related to the funding of grants and awards. This includes:

- budgets
- funding schedules
- funds owed by the researchers
- reported funding (e.g., statements of account)

### 6.2.1 Funding Schedule

This facet manages all planned installments of an Award. Since each installment may be subsequently paid through one or many related payments, this facet manages a planned cash flow for the Award payments.



6.2.1 Funding Schedule - Simplified

#### 6.2.1.1 Commitment

Defines a "soft" or "encumbered" commitment. A commitment is a tracked component of a payment that is planned to be issued to a Person or an Organization. An awarded funding opportunity may have multiple installments in a given fiscal year.

**Note:** These commitments are compliant with financial constraints on funding flow timelines, as defined by the funding agency (e.g., FAA approvals of commitments are only valid for commitments within the current fiscal year).

#### 6.2.1.2 Adjustment Code Type

Defines the type of payment represented by the commitment, enabling the identification of scholarship supplement payments to the applicant. Example types are:

- Regular installments



- Parental leave
- Award upgrade
- Award increase
- Travel to
- Travel from

Note: this type table covers such NSERC categories such as SCH Installment Types, SCH Supplements. In RP2.0 it was called an "Installment Identifier"

#### **6.2.1.3 Installment Line Type**

Defines the specialized categorization of the installment line, for example:

- A - manually added installment (i.e., not a part of originally generated funding schedule)
- S - second (carryover) part of TBP yearly funding
- R - result of rollover (i.e., any other installment line)

Note: This is an NSERC-specified characteristic of an installment. It is not clear whether NSERC intends to continue using this designation.

#### **6.2.1.4 Commitment Status Type**

Defines the status of an installment, for example:

- Scheduled - Authorization to pay an installment is scheduled (but not yet authorized) to be sent for Payment.
- Authorized – The payment of an installment has been authorized for Finance to process the corresponding payment.
- Canceled - An installment has been canceled.
- On-Hold - An installment has been placed on hold.

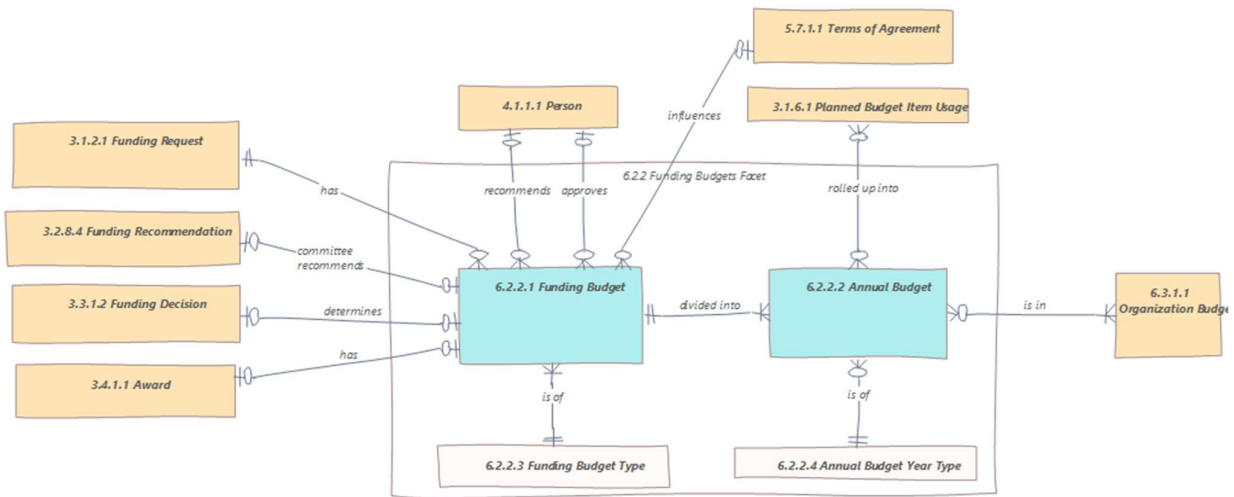
#### **6.2.1.5 Scheduled Payment**

Defines the payments that have been scheduled for payment to the payee. This is the "hard" or "outright" commitment.

The rules by which payments are defined and disbursed are predefined in the Funding Opportunity Funding Model.

### **6.2.2 Funding Budgets**

This facet describes the information required in order to define and manage the budgets that are defined in the life cycle of a Service Request.



**6.2.2 Funding Budgets - Simplified**

### 6.2.2.1 Funding Budget

Defines the total (start-to-finish) budget associated with a funding request, which includes:

- the total, multi-year allocation that is associated with an Award
- the dates at which the budget was defined and approved
- the complete history of changes to the budgets of each Award

Note: the funding budget type defines the nature of the funding budget recorded here.

### 6.2.2.2 Annual Budget

Defines the distribution of the Award's budget allocation by increments of year. Each annual budget refers to the budget allocated for a specific year (which can be defined as either a *calendar year*, or a *government fiscal year*).

### 6.2.2.3 Funding Budget Type

Defines the type of budget that has been entered, as either:

- requested budget (i.e., requested by the applicant in the funding request)
- recommended budget (i.e., the budget recommended by the assessment committee); or
- decided budget (i.e., the approved budget for this funding request)
- funding agreements budget (such as a Partner Agreement)

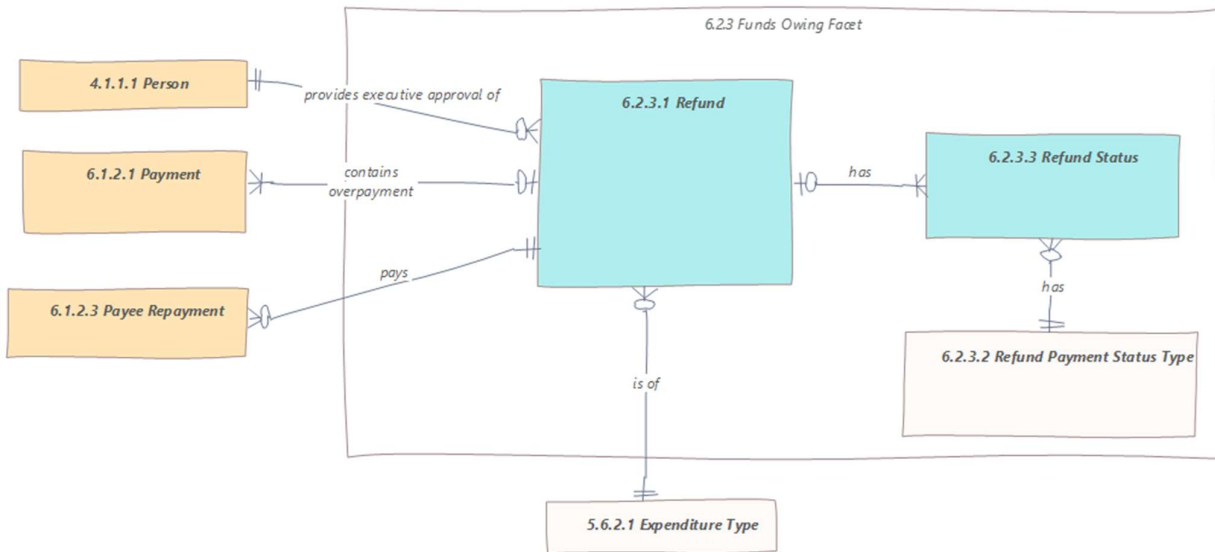
### 6.2.2.4 Annual Budget Year Type

Defines the type of budget year under consideration, as either:

- funding year (i.e., 'Year 1', 'Year 2', etc.)
- government fiscal year

## 6.2.3 Funds Owing

This facet manages data that describes the funds that a payee must return to the funding agency, as a result of an overpayment by the funding agency.



**6.2.3 Funds Owning - Simplified**

### 6.2.3.1 Refund

Defines the amount of funding that a payee (person or organization) owes the funding agency. Refunds may be a consequence of:

- a funding agency overpayment error; or
- a Recourse Action that mandated the payee refund an amount that was previously paid to the payee.

Note: Refunds may be subject to blackout periods that should be managed through automation.

### 6.2.3.2 Refund Payment Status Type

Defines the status of the refund. For example, Global Payment Awards may have the following associated status:

- Repayment Scheduled
- Repayment Received
- GGSF scheduled
- GGSF received
- Previous year scheduled
- Previous year received
- Uncollectable

Non-Global Payment Awards may have the following associated status:

- Repayment Scheduled
- Repayment Received
- Previous year scheduled
- Previous year received
- Uncollectable

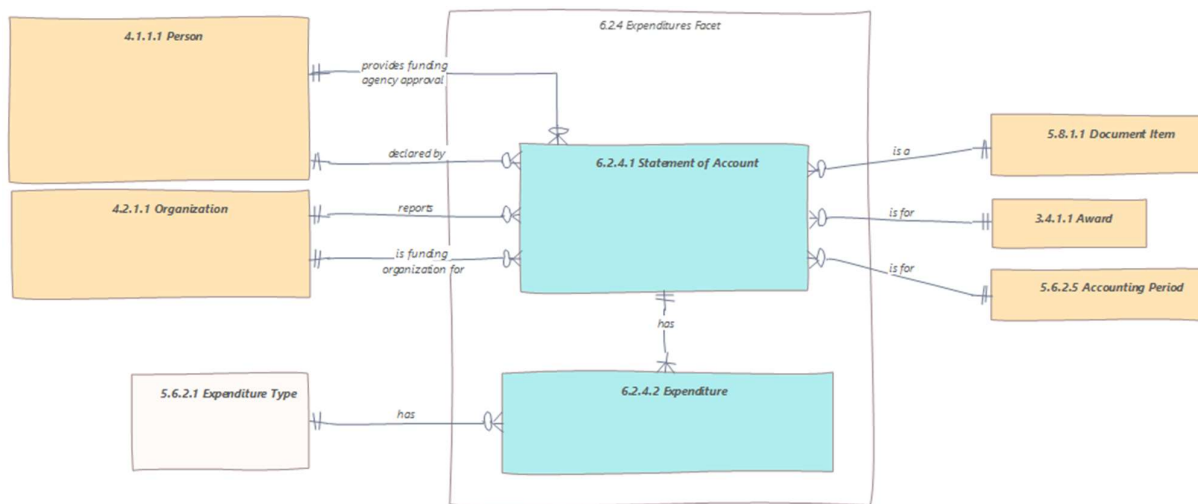
### 6.2.3.3 Refund Status

Defines the current status of a refund that is required from the payee.

## 6.2.4 Expenditures

This facet describes the expenditure information that institutions are required to submit (e.g., Statement of Account - Form 300 and/or Form 301), pursuant to the Treasury Board Policy on Transfer Payments.

The reporting of this information is described in detail in the Tri-Agency Guide on Financial Administration, which directs grant recipients and administering institutions to ensure understanding of the principles and directives that govern post-award administration of grants funded by CIHR, NSERC and SSHRC.



6.2.4 Expenditures - Simplified

### 6.2.4.1 Statement of Account

Defines the statement of account that an institution reports periodically. The statement of account provides the header information for the many expenditures that are declared for a given reporting period.

Each year, institutions are required to submit a Statement of Account (i.e. presently designated Form 300 and/or Form 301) to the Agency, signed by the designated official at the institution, for every NSERC, SSHRC, and/or CRC grant(s) they hold for the period ending March 31 of each year.

If there are errors in the statement of account, they are corrected through a resubmission by the institution or the grant holder.

This entity is based on the definition of expenditures and their reporting, as defined in the Annual Reconciliation of Active Awards [https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/ARAA-RASA\\_eng.asp](https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/ARAA-RASA_eng.asp) and the form, which resides at [https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/pdf/F300\\_e.pdf](https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/pdf/F300_e.pdf)

### 6.2.4.2 Expenditure

Describes the expenditures that an institution is reporting against an active award.

This entity is based on the Form 300/301 definition of expenditures and their reporting, as defined in the Annual Reconciliation of Active Awards [https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/ARAA-RASA\\_eng.asp](https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/ARAA-RASA_eng.asp) and the form, which resides at [https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/pdf/F300\\_e.pdf](https://www.nserc-crsng.gc.ca/OnlineServices-ServicesEnLigne/pdf/F300_e.pdf)

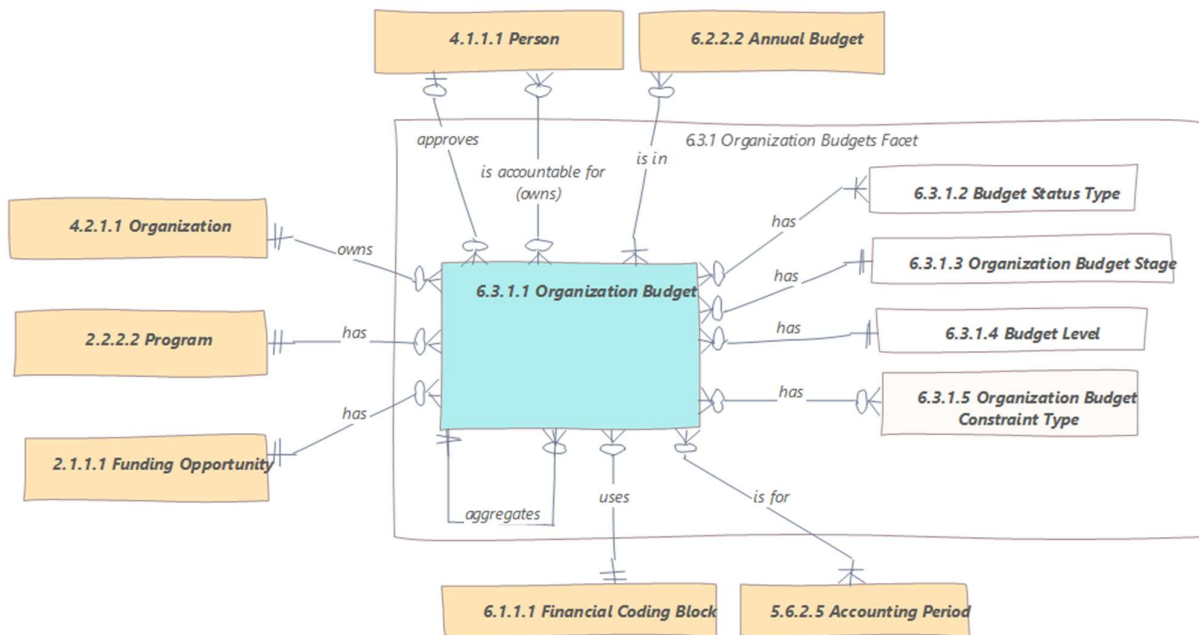
## 6.3 Budgets & Transfers

This Subject defines the information related to the definition of funding agency budgets for research, and the transfer of funding between budgets. These are the budgets that define the funding allocated for such TGMS business areas as:

- Programs
- Funding Opportunities
- Committees

### 6.3.1 Organization Budgets

This facet manages data related to the definition of the budgets that funding organizations (i.e. funding agencies) set for planning and delivering TGMS services.



6.3.1 Organization Budgets - Simplified

#### 6.3.1.1 Organization Budget

Defines the information required in order to structure a funding organization's TGMS-related budget in a given fiscal year.

#### 6.3.1.2 Budget Status Type

Defines the status codes that describe the current state of a budget, for example:

- Draft
- Approved

#### 6.3.1.3 Organization Budget Stage

Defines the incremental development status of a given budget. For example, a budget may be defined as:

- Current Budget - current accurate Budget Amount that is used to perform system validation and drives Financial Controls
- Initial Budget Amount - the initial amount defined for a budget

- Planned Budget Amount - a budget amount that is created for planning purposes, generally to represent what will likely be the budget at a certain point in time, but has not yet been realized.

#### 6.3.1.4 Budget Level

Defines the level for which a budget is applicable, for example:

- Strategic Objective
- Program Activity
- Funding Opportunity
- Committee
- Transfer Payment Program
- No Budget

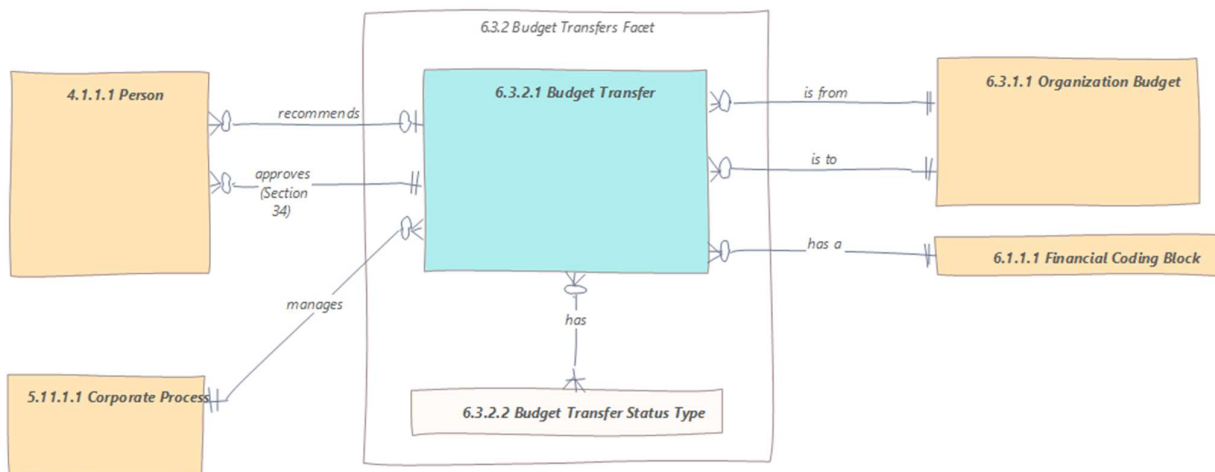
#### 6.3.1.5 Organization Budget Constraint Type

Defines the constraints applied to a particular organization budget, for example:

- Listed Grants Budget - the budget does not allow funds to be transferred out – unspent funds are either re-profiled or returned
- Non-Listed Budgets - the budget can have funds transferred out.

### 6.3.2 Budget Transfers

This facet manages data related to the definition of transfers of funding between budgets that were defined in a given funding organization (i.e. funding agency).



**6.3.2 Budget Transfers - Simplified**

#### 6.3.2.1 Budget Transfer

Defines the information required in order to transfer funds (e.g., adjustment) from one budget to another.

#### 6.3.2.2 Budget Transfer Status Type

Defines the status of the Budget Transfer, for example:

- Draft - Canceled

- Draft - Request Verification
- Request Verification - Draft
- Request Verification - Canceled
- Request Verification - Verified
- Verified - Draft
- Verified - Canceled
- Verified - Process Transfer
- Process Transfer - Completed
- Completed is FINAL - cannot be changed

## 7. Human Resources Domain

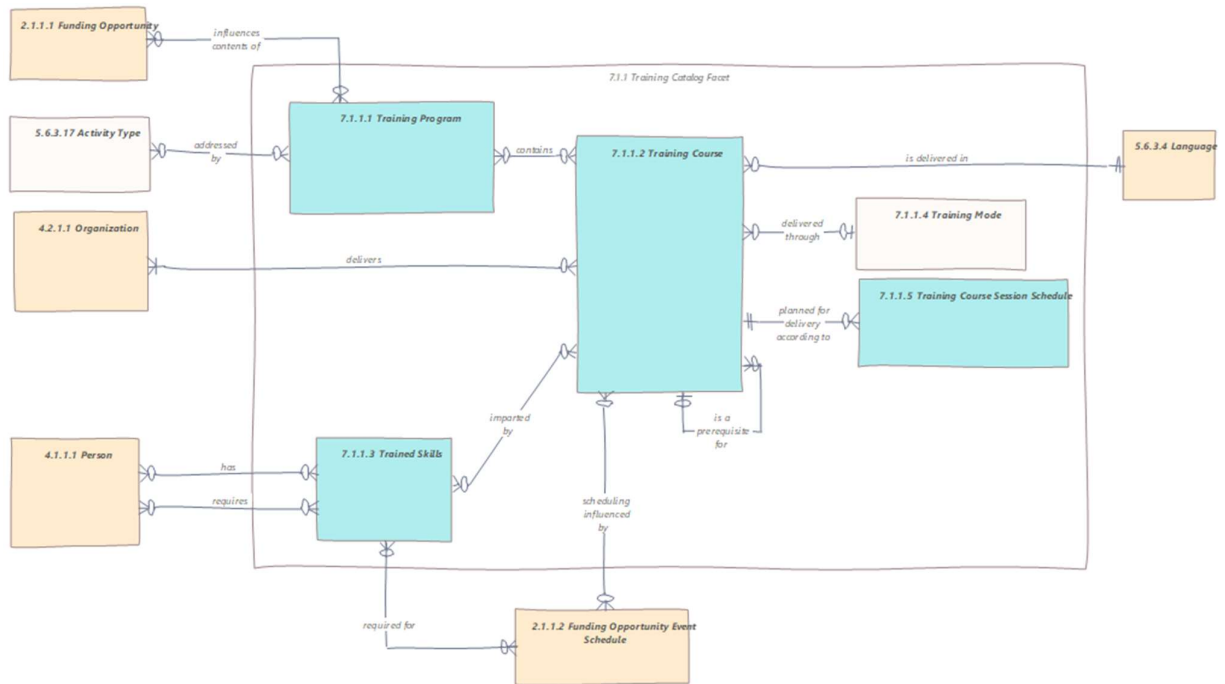
This Domain manages data specific to an organization's Employee Services (employee profiles (training, skills, and experience), recruitment, and career development).

### 7.1 Training

This Subject defines the data related to the definition of training courses, and their delivery to Persons.

#### 7.1.1 Training Catalog

This facet identifies the information required in order to build a syllabus of courses that can be delivered to Persons.



**7.1.1 Training Catalog - Simplified**

##### 7.1.1.1 Training Program

Defines a program of training events, which lead to a skill certification. Training Programs may be activity-specific (based on the Activity Type), or role-specific in general (e.g., aimed at researchers, or reviewers, or committee chairs), and may be further specialized to individual funding opportunities. Examples are:

- Lead reviewer
- Reviewer
- Applicant
- Committee chair or member

##### 7.1.1.2 Training Course

Defines training events (e.g., classroom courses, online courses, seminars or workshops) which are recognized as having an instructional goal.



### 7.1.1.3 Trained Skills

Defines a set of skills that are the desired outcome of a training course.

### 7.1.1.4 Training Mode

Defines the channels through which a training event is delivered, for example:

- classroom
- online
- individual instruction
- self instruction

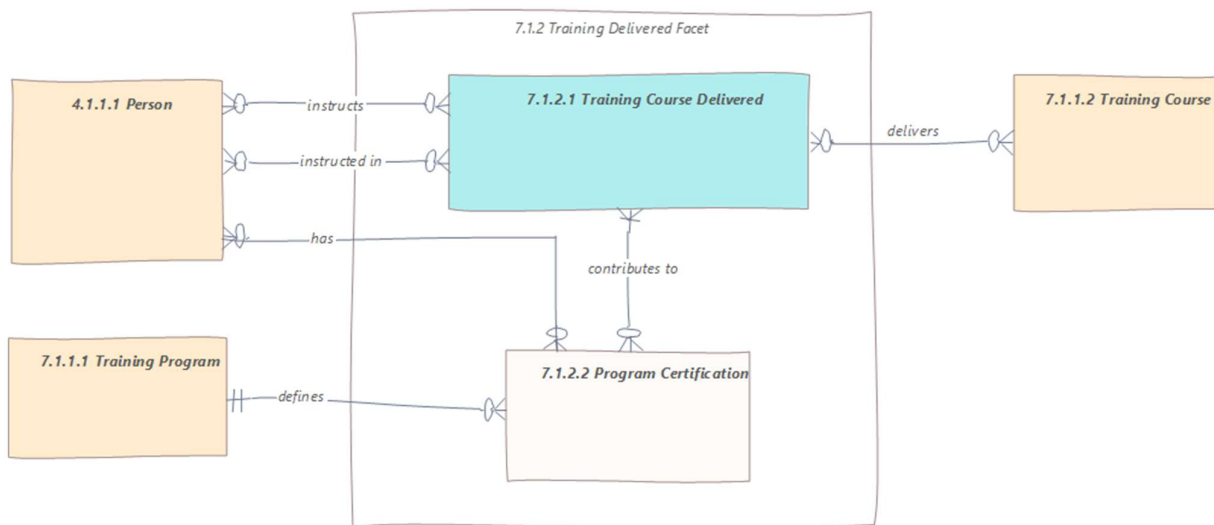
### 7.1.1.5 Training Course Session Schedule

Defines the timeslots at which a given Training Course is delivered, for example:

- Monday, 9AM to 2PM
- Wednesday, 10AM-4PM

## 7.1.2 Training Delivered

This facet manages the information required in order to track and report on training received by Persons, and training delivered by Persons.



**7.1.2 Training Delivered - Simplified**

### 7.1.2.1 Training Course Delivered

Defines a training event that has been delivered to a Person.

### 7.1.2.2 Program Certification

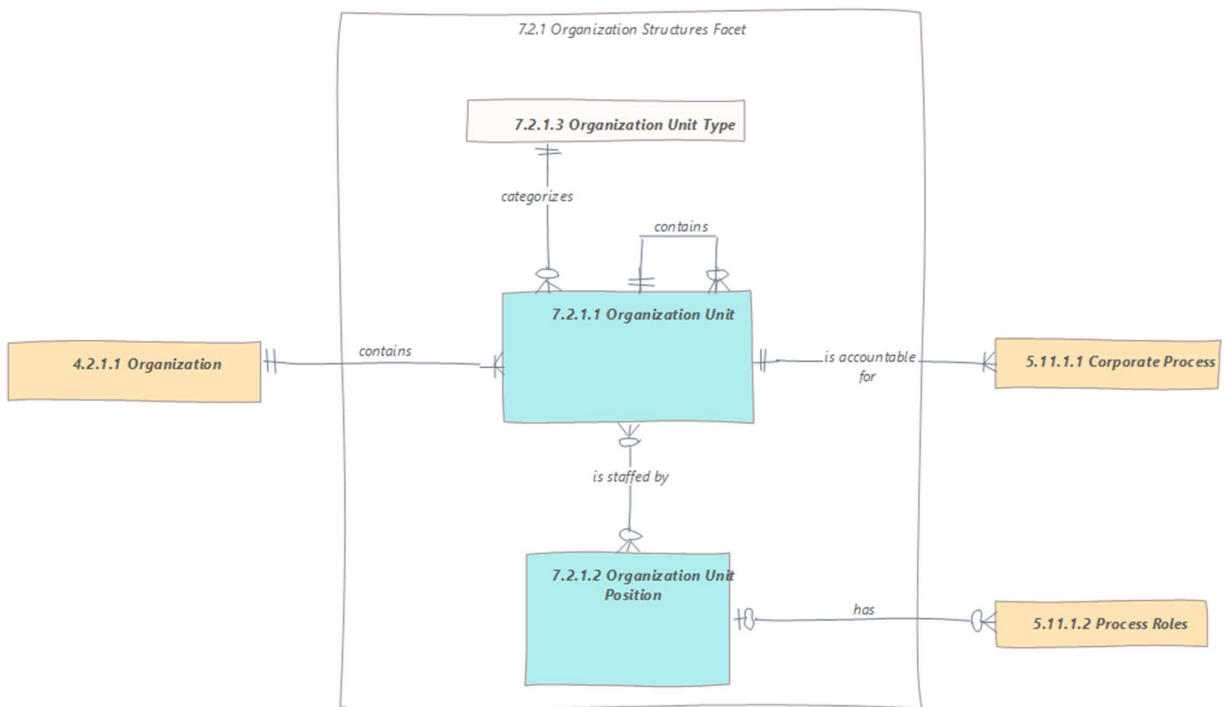
Defines that a Person has completed all the training required for a particular Training Program. A certification may expire based on policy reasons (e.g., a new policy supersedes an existing policy and demands a training update), or based on duration of certification (e.g., a certification should be renewed every 3 years).

## 7.2 Corporate Structure

This Subject defines the data related to the definition of the funding agency organizational structure that delivers the TGMS business.

**Note:** the intent of this subject is to focus on the data required in order to understand the organizational structure that the Tri-agency as a funding agency uses to manage the TGMS business line. As such, these data models accommodate the definition of organization structures of each of the three funding agencies of TGMS.

### 7.2.1 Organization Structures



**7.2.1 Organization Structures - Simplified**

#### 7.2.1.1 Organization Unit

Defines a unit within the organization, for example a Directorate, Division or Responsibility Center associated with:

- Corporate Services
- Governance and External Relations
- Strategic Planning
- Program Design and Delivery
- Initiative Management and Institute Support
- Science Policy
- Operations Support
- The College of Reviewers

- Science Council
- Institutes

#### *7.2.1.2 Organization Unit Position*

Defines the role that an employee or other person may play in an organization unit. Examples are:

- President
- Vice-President
- Director General
- Director
- Manager
- Officer

#### *7.2.1.3 Organization Unit Type*

Defines an organization unit, as either:

- Directorate
- Division
- Responsibility Centre

## 8. Information Resources Domain

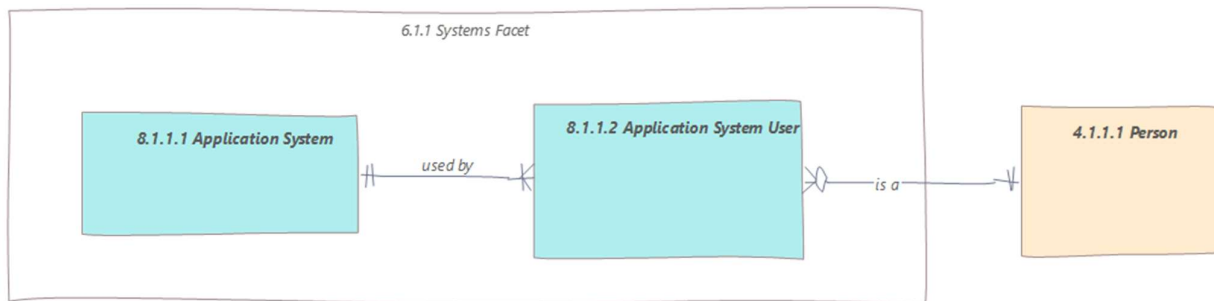
This Domain manages data related to an organization's Information Services (data warehouses, databases, application systems, networks, and IT infrastructure such as servers, mainframes and cloud components).

### 8.1 Application Systems

This Subject defines the data related to information management application systems that the TGMS organization uses, some of which are accessed by persons outside the Tri-Agency organization and are involved in the grants management business.

#### 8.1.1 Systems

This Facet defines the data that the TGMS business uses to identify application systems and the accessibility of the systems to persons.



**8.1.1 Systems - Simplified**

##### 8.1.1.1 Application System

Defines application systems that are used in the TGMS environment.

##### 8.1.1.2 Application System User

Defines a Person who has been granted login privileges to use an application system (i.e., has become a system user).

## 9. Physical Resources Domain

This Domain manages data specific to an organization's physical resources such as real property, and physical assets such as equipment, vehicles, and other such physical assets that are required in order to conduct TGMS business.

The scope of TGMS does not include any data from this Domain.

## Annex A: CDM Entity Summary

Domains	Subjects	Facets	Entities
1. Legislation & Regulations Domain	1.1 Policies	1.1.1 Policy Frameworks	1.1.1.1 Policy
			1.1.1.2 Policy Instrument
			1.1.1.3 Policy Instrument Type
		1.1.2 Breaches of Policy	1.1.2.1 Breach Type
			1.1.2.2 Breach Perpetrator Type
			1.1.2.3 Breach Category Type
	1.2 Governance and Controls	1.2.1 Control Points	1.2.1.1 Control Point
			1.2.1.3 Control Point Criticality Type
			1.2.1.4 Control Point Criterion
			1.2.1.5 Control Point Role
			1.2.1.6 Control Point Role Type
			1.2.1.7 Control Type
		1.2.2 Controls Monitored	1.2.2.1 Control Point Event
			1.2.2.2 Control Point Event Status Type
			1.2.2.3 Control Point Event Status
			1.2.2.4 Control Point Event Deliverable
			1.2.2.5 Control Point Event Participant
2. Services Offered Domain	2.1 Funding Opportunities	2.1.1 Funding Opportunity	2.1.1.1 Funding Opportunity
			2.1.1.2 Funding Opportunity Event Schedule
			2.1.1.3 External Partners
			2.1.1.4 Funding Opportunity Specified Applicant Type List
			2.1.1.5 Funding Opportunity Award Amendment Rules
			2.1.1.6 FO Team Specification
		2.1.2 Funding Opportunity Categories	2.1.2.2 Funding Opportunity Competitive Deadline Status
			2.1.2.3 FO Person Role Type
			2.1.2.4 Funding Opportunity Type
		2.1.3 Funding Opportunity Participation Model	2.1.3.1 Funding Opportunity Applicant Partnering Rules
			2.1.3.2 Funding Opportunity Applicant Supporting Organization Rules
			2.1.3.3 Funding Opportunity Participant Organization Rules
			2.1.3.4 Funding Opportunity Allowed Applicant Type
			2.1.3.6 Organization Role Type

		2.1.4 Funding Opportunity Award Model	2.1.4.1 Funding Opportunity Planned Award Amounts
			2.1.4.3 Award Start Criterion Type
			2.1.4.4 Award Amendment Rule Type
			2.1.4.5 Allowable Award Amendment Type
			2.1.4.6 Award Duration Extension Type
			2.1.4.7 Planned Award Installment Period
			2.1.4.8 Funding Opportunity Planned Award Disbursement
		2.1.5 Funding Opportunity Review and Assessment Model	2.1.5.1 Funding Opportunity Application Review Type
			2.1.5.2 Funding Opportunity Application Assessment Type
			2.1.5.3 Funding Opportunity Event Type
			2.1.5.4 Assessment Criteria
			2.1.5.5 Assessment Criteria Category
		2.1.6 Funding Opportunity Funding Model	2.1.6.1 Planned Payment Administration
			2.1.6.2 Payee Type
			2.1.6.3 Planned Payment Type
			2.1.6.4 Planned Finance Configuration
			2.1.6.5 Planned Statements of Account Type
			2.1.6.6 Residual Funds Planned Disposition Code
			2.1.6.7 Scholarships and Fellowships Funding Level Type
		2.1.7 Funding Opportunity Reporting Model	2.1.7.1 Funding Opportunity Report Schedule
		2.1.8 Funding Cycle	2.1.8.1 Funding Cycle
			2.1.8.2 Funding Cycle Event
		2.1.9 Funding Opportunity Quota Model	2.1.9.1 Quota
			2.1.9.2 Allocation Classification
			2.1.9.3 Allocation Type
			2.1.9.4 EDI Target
	2.2 Service Structure	2.2.1 Departmental Results Framework	2.2.1.1 Core Responsibility
			2.2.1.2 Departmental Result
			2.2.1.3 Departmental Result Indicator
			2.2.1.4 Indicator Type
			2.2.1.5 Program Target
			2.2.1.6 Program Result
		2.2.2 Program	2.2.2.1 Program Inventory

			2.2.2.2 Program
			2.2.2.3 Performance Indicator Plan
			2.2.2.4 Strategic Initiative Type
3. Services Delivered Domain	3.1 Service Request	3.1.1 Service Request	3.1.1.1 Service Request
			3.1.1.2 Service Request Type
			3.1.1.3 SR Person Role
			3.1.1.4 SR Person Role Type
			3.1.1.5 SR Org Role
		3.1.2 Funding Request	3.1.2.1 Funding Request
			3.1.2.2 Funding Request Keyword
			3.1.2.4 Funding Request Type
		3.1.3 Appeal	3.1.3.1 Appeal
			3.1.3.2 Appeal Reason Type
		3.1.4 Amendment	3.1.4.1 Amendment
			3.1.4.2 Amendment Type
			3.1.4.3 Deferral Reason Type
			3.1.4.4 Termination Reason Type
		3.1.5 Institutional Eligibility Request	3.1.5.1 Inst Eligibility Request
			3.1.5.2 Inst Eligibility Type
		3.1.6 Planned Budget Resource Items	3.1.6.1 Planned Budget Item Usage
			3.1.6.2 Budget Item
		3.1.7 CV Submission	3.1.7.1 CV Submission
			3.1.7.2 CV External Funding History
			3.1.7.3 CV Submission Type
			3.1.7.4 CV Person Membership
			3.1.7.5 CV Person Degree
			3.1.7.6 CV Person Employment
			3.1.7.7 CV Person Contribution
			3.1.7.8 CV Person Recognition
			3.1.7.10 CV Supervisor and Mentor Relationship
			3.1.7.11 CV Staff Supervision
			3.1.7.12 CV Person CRDC
			3.1.7.13 CV Person Keyword
			3.1.7.14 CV Person Visible Minority
			3.1.7.15 CV Person Disability
			3.1.7.16 CV Person Indigenous Identity
			3.1.7.17 CV Person Gender Identity
			3.1.7.18 CV Person Sexual Orientation



			3.1.7.19 CV Person Canadian Residency
			3.1.7.20 CV Person Citizenship
			3.1.7.21 CV Person Languages
			3.1.7.22 CV External Funding Source
			3.1.7.23 CV Significant Contribution Group
			3.1.7.24 CV Template
	3.2 Assessment	3.2.1 Assessment	3.2.1.1 Assessment
			3.2.1.2 Assessment Status Type
			3.2.1.3 Person Assessment Role
			3.2.1.4 Assessment Status
			3.2.1.5 Person Assessment Role Type
		3.2.3 Assessment Scoring	3.2.3.1 Score/Rating
			3.2.3.2 Score/Rating Scale Type
			3.2.3.4 Score/Rating Type
		3.2.5 Administrative Request Assessment	3.2.5.1 Administrative Request Assessment
			3.2.5.2 Administrative Request Type
			3.2.5.3 Administrative Request Assessment Response
		3.2.6 Eligibility Validation	3.2.6.1 Eligibility Assessment
			3.2.6.2 Eligibility Assessment Type
			3.2.6.3 Eligibility Assessment Status
			3.2.6.4 Eligibility Assessment Status Type
			3.2.6.5 Eligibility Assessment Response
		3.2.7 Funding Request Assessment	3.2.7.1 Merit Assessment
			3.2.7.2 Merit Assessment Response
		3.2.8 Assessment Recommendations	3.2.8.1 Assessment Recommendation
			3.2.8.4 Funding Recommendation
			3.2.8.5 Administrative Request Recommendation
			3.2.8.6 Administrative Request Type
	3.3 Decisions	3.3.1 Decision	3.3.1.1 Decision
			3.3.1.2 Funding Decision
			3.3.1.3 Decision Type
			3.3.1.5 Person Decision Role
			3.3.1.5 Status of Condition of Decision
			3.3.1.6 Person Decision Role Type

		3.3.2 Decision Bins and Ranks	3.3.2.1 Bin
			3.3.2.2 Bin Approach
			3.3.2.10 Ranking
			3.3.2.11 Ranking Approach
			3.3.2.12 Ranking Cutoff
		3.3.3 Conditions	3.3.3.1 Condition
			3.3.3.2 Special Attention Type
	3.4 Awards	3.4.1 Award	3.4.1.1 Award
			3.4.1.2 Award Status Type
			3.4.1.3 Award Status
			3.4.1.4 Award Person Role
			3.4.1.5 Award Org Role
			3.4.1.6 Award Date Type
			3.4.1.7 Award Dates
			3.4.1.8 Award Refusal Reason Type
	3.5 Reviewers	3.5.1 Eligible Reviewer	3.5.1.1 Eligible Reviewer
		3.5.2 Reviewer Assignment	3.5.2.1 Reviewer Assignment
			3.5.2.10 Review Assignment Status
			3.5.2.2 Reviewer Activity Type
			3.5.2.3 Review Assignment Status Type
			3.5.2.4 Reviewer Assignment Type
			3.5.2.5 Reviewer Viewpoint Type
			3.5.2.6 Reviewer Unavailability
			3.5.2.7 Reviewer Unavailability Reason Type
			3.5.2.8 Comfort Rating Evaluation
			3.5.2.9 Comfort Rating Type
	3.7 Performance Measurement	3.7.1 Research Benefits	3.7.1.1 Research Benefit
	3.8 Allegations	3.8.1 Allegation and Investigation	3.8.1.1 Allegation
			3.8.1.2 Investigation
			3.8.1.3 Investigation Conclusion Type
		3.8.2 Recourse	3.8.2.1 Recourse Action
			3.8.2.2 Recourse Action Type
			3.8.2.3 Exclusion
			3.8.2.4 Exclusion Reason Type
			3.8.2.5 Exclusion Duration Type
			3.8.2.6 Exclusion Type
			3.8.2.7 Monetary Recourse
			3.8.2.8 Monetary Recourse Type

4. People and Organizations Domain	4.1 People	4.1.1 Person Profile	4.1.1.1 Person
			4.1.1.2 Person Name
			4.1.1.6 Person Citizenship
			4.1.1.7 Person Canadian Residency
			4.1.1.8 Person Indigenous Identity
			4.1.1.9 Personal Salutation
			4.1.1.10 Person Consent
			4.1.1.12 Person Gender Identity
			4.1.1.13 Person Disability
			4.1.1.14 Person Visible Minority
			4.1.1.15 Person Sexual Orientation
			4.1.1.16 Person Languages
			4.1.1.17 Person Activities Language Preferences
		4.1.2 People Categories	4.1.2.1 Indigenous Identity
			4.1.2.2 Visible Minority
			4.1.2.3 Disability Type
			4.1.2.4 Canadian Residency Status
			4.1.2.5 Researcher Status Type
			4.1.2.6 EDI Target Categories
		4.1.4 External Funding History	4.1.4.1 External Funding History
			4.1.4.2 External Funding History Status Type
			4.1.4.3 Funding Type
			4.1.4.4 External Funding Source
			4.1.4.5 Person FH Role Type
		4.1.5 Person Membership	4.1.5.1 Person Membership
			4.1.5.2 Person Membership Role
			4.1.5.3 Person Membership Activities
		4.1.6 Person Education	4.1.6.1 Person Degree
			4.1.6.2 Degree Type
			4.1.6.3 Degree Status Type
			4.1.6.4 Degree Supervision
		4.1.7 Person Employment	4.1.7.1 Person Employment
			4.1.7.4 Academic Rank Type
			4.1.7.5 Tenure Status Type
		4.1.8 Person Contribution	4.1.8.1 Person Contribution
			4.1.8.2 Contribution Type
			4.1.8.3 Publishing Status Type
			4.1.8.5 Contribution Role Type
			4.1.8.6 Patent Status Type
			4.1.8.7 Presentation
			4.1.8.8 Interview

			4.1.8.9 Published Work
			4.1.8.10 Artistic Contribution
			4.1.8.11 Intellectual Property
			4.1.8.12 Intellectual Property Type
			4.1.8.13 Artistic Contribution Type
			4.1.8.14 Contribution Funding
			4.1.8.15 Interview Type
			4.1.8.16 Litigation Support
			4.1.8.17 Shared Materiel
			4.1.8.18 Shared Materiel Type
			4.1.8.20 Person Participation Activity
			4.1.8.21 Knowledge and Technology Translation Activity
			4.1.8.22 Knowledge and Technology Translation Type
			4.1.8.23 Activity Role Type
			4.1.8.24 Person Activity Role
		4.1.9 Person Recognition	4.1.9.1 Person Recognition
			4.1.9.2 Person Recognition Sources
		4.1.11 Person Supervision and Teaching	4.1.11.1 Supervisor and Mentor Relationship
			4.1.11.2 Supervision and Mentoring Role Type
			4.1.11.3 Staff Supervision
			4.1.11.4 Teaching Activity
			4.1.11.5 Teaching Activity Type
			4.1.11.6 Course Level Type
		4.1.12 Person Expertise	4.1.12.1 Person CRDC
			4.1.12.2 Person Keyword
		4.1.13 Career Interruptions	4.1.13.1 Person Career Interruptions
			4.1.13.2 Career Interruption Type
	4.2 Organizations	4.2.1 Organization Profile	4.2.1.1 Organization
			4.2.1.2 Organization Name Type
			4.2.1.3 Organization Alternate Name
			4.2.1.7 Organization Affiliation
			4.2.1.8 Organization Tier
		4.2.2 Organization Categories	4.2.2.1 Organization Type
			4.2.2.2 Organization Sub-Type
			4.2.2.3 Business Sector
			4.2.2.4 Ministerial Portfolio Type
			4.2.2.5 NAICS Code
			4.2.2.6 Organization Affiliation Type

			4.2.2.7 Line of Business
			4.2.2.8 Not-For-Profit Organization Funding and R&D Activity Type
			4.2.2.9 Revenue and Funding Sources Type
		4.2.3 Organization Finances & Financial Risk	4.2.3.1 Organization Financial Risk
			4.2.3.2 Financial Management Approach
			4.2.3.3 Financial Management Control Type
			4.2.3.4 Financial Management and Oversight
			4.2.3.6 Organization Financial Control Offices
			4.2.3.7 Organizational Governance Parameters
			4.2.3.8 Organizational Governance Parameter Types
			4.2.3.9 Organization Revenue Sources
			4.2.3.10 Organization Funding Sources
		4.2.4 Organization Locations	4.2.4.1 Organization Locations
			4.2.4.2 Location Type
			4.2.4.3 Location Usage Type
			4.2.4.4 Organization Administrative Contact
			4.2.4.5 Location Lines of Business
			4.2.4.6 Location Funding and R&D Activities
		4.2.5 Organization Resources	4.2.5.1 Organization Staff Activities
5. Management Information Domain	5.1 Communications	5.1.1 Communication Contact Information	5.1.1.1 Telephone Number
			5.1.1.2 Email Address
			5.1.1.3 Instant Messaging Address
			5.1.1.4 Email Address Type
			5.1.1.5 Telephone Number Type
			5.1.1.6 Organization Identifiers
			5.1.1.7 Websites
		5.1.2 Communications Privacy	5.1.2.1 Disclosure Consent Type
	5.2 Correspondence, Campaigns and Interactions	5.2.1 Campaigns & Content Distribution	5.2.1.1 Corporate Campaign
			5.2.1.2 Distribution Group
			5.2.1.3 Distribution Group Member

			5.2.1.4 Distribution Group Role Type
			5.2.1.5 Subscription Category
			5.2.1.6 Person Subscription List
		5.2.2 Correspondence Templates	5.2.2.1 Correspondence Template
		5.2.3 External Interactions	5.2.3.1 Communication Channel Type
			5.2.3.2 Interaction Event
			5.2.3.3 Interaction Media Record
	5.3 Geography	5.3.1 Address	5.3.1.1 Country
			5.3.1.2 Street Address
			5.3.1.3 Address Usage Type
			5.3.1.4 Address Validation Status Type
			5.3.1.4 Federal Riding
			5.3.1.5 Province or State
			5.3.1.6 City
	5.4 Academic Research and Institution Categories	5.4.1 Research Categorization	5.4.1.1 Canadian Research and Development Classifications
			5.4.1.2 Fields of Research
			5.4.1.3 Socio-Economic Objectives
			5.4.1.4 Types of Activity
			5.4.1.5 CRDC Assessment
			5.4.1.6 Research Characteristic Flag
			5.4.1.7 Research Characteristic Type
		5.4.3 Research Deliverable Categories	5.4.3.1 Report Types
			5.4.3.2 Life Cycle Reporting Item
		5.4.4 Academic Specialization Areas	5.4.4.1 Classification of Instructional Programs (CIP)
		5.4.5 Academic Institution Segmentation	5.4.5.1 Academic Institution Classification Approach
			5.4.5.2 Academic Institution Tier Category
			5.4.5.3 Academic Institution Categorization Criteria
			5.4.5.4 Classification Metric Type
		5.4.6 Researcher Career Stages	5.4.6.1 Researcher Career Stage
			5.4.6.2 Career Stage Type
			5.4.6.3 Career Stage Criteria
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7. Human Resources Domain	7.1 Training	7.1.1 Training Catalog	7.1.1.1 Training Program
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			7.1.2 Training Delivered
		7.1.2 Training Delivered	7.1.2.1 Training Course Delivered
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## Appendix G – Personas

The TGMS project team is committed to using a user-centric approach throughout its activities and conducted Client experience (CX) research activities to engage directly with primary users. The TGMS team has developed four user personas and their journey map based on a series of interviews and workshops with key internal Agency and external stakeholders. The primary users of the new solution are described through the following four personas:

- **Agency Personas (Administrators and Analysts):** Employees from the three agencies consulted to create the two agency personas include primary users of tri-agency systems working in front-line support, competition delivery/support, analytics/corporate reporting, finance, and system analytics. The agency administrator persona represents tasks pertaining to the direct development and delivery of funding opportunities. The agency analyst persona represents tasks pertaining to analysis to support the delivery of competitions, including financial administration.
- **Applicants:** The applicant personas represent early, mid-career or senior researchers who apply to one or more of the agencies' funding opportunities. There are two applicant personas, one of which represents the needs of applicants who are working on complex projects that require a lot of administrative support, and the second applicant persona represents the needs of applicants who are working on less complex projects that do not need as much administrative support.
- **Reviewer:** The reviewer persona represents members of the research community who volunteer their time to participate in the agencies review processes. Reviewers are assigned to applications in their area of expertise and experience, whereby they conduct an assessment and provide a recommendation for funding. The reviewer persona represents the needs of a variety of reviewer types at the agencies, including peer reviewers, external reviewers, readers, etc.
- **Research administrator:** The research administrator persona represents the needs of institution officials who provide administrative services to researchers, from offices such as the research grants office, research accounting office or scholarships liaison office, etc. Research administrators assist researchers with completing applications to submit to funding opportunities, keep those researchers updated on funding opportunity information, help them interpret requirements and policies and ensure compliance with these, and oversee the administration of research grant funds.

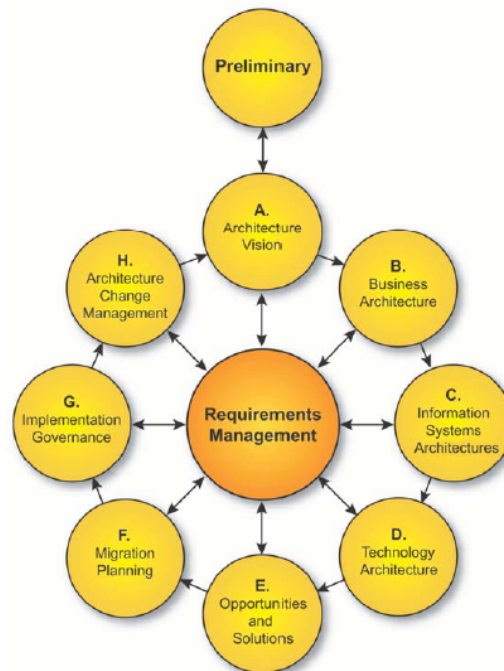
## Appendix H – Non-Functional Requirements

### Introduction

Functional and non-functional requirements are the centerpiece of most enterprise architecture frameworks including TOGAF™ Version 9<sup>1</sup>. All phases of the TOGAF 9 Architecture Development Method (ADM) relate to requirements and requirements management.

Quotes from TOGAF 9:

- “Every stage of a TOGAF project (architecture projects that comply with the TOGAF ADM) is based on and validates business requirements.”
- “Requirements are identified, stored, and fed into and out of the relevant ADM phases, which address, prioritize, validate, and dispose of these requirements”.



Non-Functional Requirements (NFR) impacts (and has potential benefits for):

- Enterprise architecture projects
- Enterprise technology domain architecture & design projects (such as enterprise storage architecture projects)
- Business service(s) architecture & design projects (for example, CRM service)
- IT service(s) architecture & design projects (for example, email service)

To provide a definition, NFR describe not what a system or software will do, but how they will do it, outlining performance requirements, external interface requirements, design constraints, and quality control attributes. Nonfunctional requirements are difficult to test; therefore, they are usually evaluated subjectively.

Functional vs. Non-Functional

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<sup>1</sup> The Open Group Architecture Framework (TOGAF), Version 9 is available at [www.opengroup.org/architecture/togaf](http://www.opengroup.org/architecture/togaf).

Functional requirements describe what the system should do:

- functions that can be captured in user scenarios
- behaviours that can be analyzed in business process diagrams
- replication of the output of specific programs (i.e. financial output)

Non-functional requirements are global constraints on a system and cannot usually be implemented in a single module of a program.

## Non-Functional Requirements

### 1. Security/Privacy Requirements

The NFR defining the needs for security revolve around the regulation of permissible information flows that defend information from unauthorized access, use, disclosure, disruption, modification, perusal, inspection, recording or destruction. We are planning to procure a solution hosted upon a Canadian Centre for Cyber Security (CCCS) accredited private cloud infrastructure via the established Government of Canada Cloud Brokering Services (CBS). The security requirements listed below are covered in depth under Annex A, schedule 1 of the CBS.

NFR	Definition	RECOMMENDED NFR for TGMS
1.1 Identity Management	The authorization given to users that enables them to access specific resources in the solution, such as files, reports, data, etc.	<p>Authorization given to users to login and access their user account. The system must prevent users from creating duplicate login/access.</p> <p>The system will allow access through approved credential services such as Sign-in Canada</p> <p>Multi-factor authentication capabilities must be available and enforceable based on user identity types.</p>
1.2 Data Classification	All data must be protectively marked and stored according to TBS policies.	<p>All data stored in the system must be evaluated and given a security classification according to this policy: <a href="https://www.tpsgc-pwgsc.gc.ca/esc-src/protection-safeguarding/niveaux-levels-eng.html">https://www.tpsgc-pwgsc.gc.ca/esc-src/protection-safeguarding/niveaux-levels-eng.html</a></p> <p>All data the agencies collect is Protected B or lower, as defined by the Statement of Sensitivity.</p> <p>Data must include the ability to assign metadata based on Security Classification as well as other tags to ensure proper data handling. Examples of other metadata labels include: ATIP, OpenGov, Proactive disclosure, Legal hold, Audit and Program Evaluation.</p>

1.3 GC Cloud Guardrails	The purpose of the guardrails is to ensure that departments and agencies are implementing a preliminary baseline set of controls within their cloud-based environments.	<p>As outlined here:  <a href="https://github.com/canada-ca/cloud-guardrails">https://github.com/canada-ca/cloud-guardrails</a></p> <p>The GC Cloud Guardrails implementation will follow a shared responsibility model between the vendor(s) and the agencies based on their respective service management scopes.</p>
1.4 GC Security Control Profile for Cloud-based GC Services	This document identifies the baseline security controls that must be implemented by CSPs and GC departments and agencies in order to appropriately protect cloud-based GC services and related information categorized as Protected B, medium integrity, and medium availability.	<p>As defined in:  Government of Canada  Security Control Profile for  Cloud-based GC Services</p> <p><a href="https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/cloud-services/government-canada-security-control-profile-cloud-based-it-services.html#toc4">https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/cloud-services/government-canada-security-control-profile-cloud-based-it-services.html#toc4</a></p>
1.5 Direction for Electronic Data Residency	GC wide directive on the geographical storage and transmittal of protected data.	<p>As detailed in ITPIN 2017-02,  <a href="https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-electronic-data-residency.html">https://www.canada.ca/en/government/system/digital-government/digital-government-innovations/cloud-services/direction-electronic-data-residency.html</a></p> <p>All sensitive electronic data under government control, that has been categorized as Protected B, Protected C or is Classified, will be stored in a GC-approved computing facility located within the geographic boundaries of Canada or within the premises of a GC department located abroad, such as a diplomatic or consular mission. This does not mean that the country of origin of IT service providers must be Canada, as long as these service providers can ensure storage of data within boundaries or premises as described above.</p> <p>All Protected B, Protected C and classified GC electronic data in transit must be encrypted when in transit outside of GC controlled Operations and Security Zones within Canada or internationally.</p>
1.6 Secure messaging	The ability for clients to send and receive secure communications within the solution.	Several interactions with clients rely on sharing protected information. The solution requires a way to receive and store messages securely, send new message notifications, manage replies, and apply access management rules and tracking.

## 2. Audit and Control Requirements

The NFR surrounding Audit and control define the level of traceability for transactions as well as the permissible information flows. Auditability refers to the ability of a system to maintain logs that record actions and access to information stored by a system. This can also encompass capturing information regarding who has created, updated or deleted information in the system, along with a time dimension in terms of how long audit information is stored, and when it can be accessed. Note that Audit and Control Requirements provide the foundation for the enablement of electronic signature.

NFR	Definition	RECOMMENDED NFR for TGMS
2.1 Audited Objects	The objects that require activity logging of read, modify, create and delete actions.	<p>The system will need to allow for auditing based on data classification (see 4.1.2 Data Classification) or based on other metadata tags. The system should allow for assigning automated actions based on specified activities (Eg. a modification of banking information could be tagged to send an automated notice to the funding recipient)</p> <p>Further examples of objects that will require activity logging: Application data, decision documents, adjudication documents, internal operational documents, financial data, funding opportunity definitions, corporate documents, and agreements.</p>
2.2 Version Control	Version control is a system that records changes to documents over time so that you can recall specific versions later.	<p>The system will provide versioning control for specified documents:</p> <ul style="list-style-type: none"> <li>• Applications</li> <li>• Records of Decision</li> <li>• Funding opportunity rules</li> </ul> <p>This version control should allow for viewing previous copies of the same file and, access controls permitting, potentially revert the document to that previous version.</p> <p>The system will provide the ability to tag documents with metadata including time stamps, change initiator, and categorization labels.</p>
2.3 Information Lifecycle Management	The retention, transfer and/or disposal of information based on its age, historic value and agency policy.	<p>The system will need fully automated disposal functionality with the data being permanently deleted and a log of the deletion must be retained.</p> <p>In certain cases, when the information has historical value, it must be transferred to</p>

NFR	Definition	RECOMMENDED NFR for TGMS
		<p>Library and Archives Canada instead of being destroyed. The system must allow for labelling historical data to prevent deletion.</p> <p>Retention and disposal rules will vary based on metadata tagging, and the system must be able dynamically to apply retention, transfer, and/or disposal activities based on those tags.</p>
2.4 Data Provenance	Data Provenance is the source through which the data was obtained.	Data elements must be capable of storing metadata related to the source from which the data were acquired, imported or otherwise obtained.

### 3. Capacity Requirements

Capacity NFR provide provisioning for the use of the solution in number of users, requests, data usage, as well as providing a path for scaling up the solution to meet future demand.

NFR	Definition	RECOMMENDED NFR for TGMS
3.1 Network Capacity	Defines the potential transaction load the solution will be required to handle during peak time.	The system has the capacity to process approximately 70,000 grant application submissions annually, with a projected annual growth rate of 10%. Each application submission can include upwards of 100 attached documents.
3.2 Data Storage Capacity	Defines the potential storage requirements of the solution.	Agencies' current GMS consume over 5 TB of storage. Projecting 10% growth per year.
3.3 Volumetrics	Define the number of users the system will support.	<p>Approximate current volumetric:</p> <p>Internal users in the National Capital Region (NCR): 1000.</p> <p>External users 250,000 plus 10% annual growth.</p>
3.4 Concurrent Users	Defines the number of active users sessions the system will support during peak periods.	<p>Accommodate 800 internal agency users per day.</p> <p>Accommodate 4000 external portal users during peak grant submission periods.</p> <p>Projected growth of 10% annually.</p>

### 4. Performance Requirements

Performance NFR constraints involve time/space bounds, such as workloads, response time, throughput and available storage space. E.g., “system must handle 100 transactions/second”. Application response time measures the performance of the system and assesses the elapsed time for an end user to receive a response to a business request to the system. Response time is commonly defined contractually as a Service Level Requirement (SLR).

NFR	Definition	RECOMMENDED NFR for TGMS
4.1 Response Times	This NFR stipulates parameters for how long the system will take to respond to user requests.	<p>The solution should have a latency between 200 milliseconds to 1.0 seconds for 95% of all transactions from user input during off-peak time.</p> <p>During peak usage periods, 95% of all transactions should have a latency of less than 2.0 seconds.</p>

## 5. Availability Requirements

Availability requirements typically measure factors of reliability and details the availability of components and integrity of information maintained and supplied to the system. E.g., “system must have less than 1hr downtime/3 months”. Availability defines expectations about when access to a system is required, and how well these expectations are met. Availability is commonly defined contractually as a Service Level Requirement (SLR). Planned availability is the expected time window in which the system must be available to users. Planned outages need to be accounted for in availability definitions. Actual availability calculates what portion of the planned availability is achieved in a measured period. A common approaches to developing availability SLRs is to define maximum outages that will be tolerated over the measurement period.

NFR	Definition	RECOMMENDED NFR for TGMS
5.1 Hours of Operation	Hours of operation define the time when the solution should be accessible.	The solution must plan to be accessible to internal and external users 24 hours a day, 7 days a week, 365 days a year.
5.2 Maintenance Times	Predetermined maintenance windows define when the system performance may be impacted due to standard maintenance.	The solution should be available during planned maintenance. Any performance impacts or reduced functionality must be communicated beforehand.



NFR	Definition	RECOMMENDED NFR for TGMS
5.3 Location of Operation	The Location of Operation define where the solution should be accessible from and what form of connection requirements will be needed to meet the performance metrics outlined in service level agreements. Specific service level agreement metrics will later be defined in resultant service contracts.	<p>The solution will be accessible globally from any secured internet access point.</p> <p>Performance based service level metrics should assume connection from within Canada with a download speed of 5 Mbps and upload of 1 Mbps.</p>

## 6. Recoverability Requirements

Recovery (service) requirements define system endurance under adverse conditions and specification of how the system must be restored in the event of failure. E.g., the frequency of digital backups, Recovery Time Objectives (RTO) indicate the timeframe for a recovery to avoid significant business impact.

NFR	Definition	RECOMMENDED NFR for TGMS
6.1 Backups	Data, application, and configuration copies stored for the purpose of restoration in the event of corruption	The solution must perform solution backups, including application, data and file backups, and provide restores per established procedures
6.2 Recoverability testing	Testing of the restore procedures utilizing previously stored backups	Periodic testing of the integrity and usability of backups and routine testing of the restore process and data

## 7. Robustness Requirements

Robustness NFR define the ability of the system to resist change without adapting its initial stable configuration and is a factor of flexibility. It is also a measure of software quality in that the software shows stable behavior in stressful conditions and when receiving faulty inputs.

NFR	Definition	RECOMMENDED NFR for TGMS
7.1 Capacity management	The system's ability to adjust to dynamic capacity needs	The system must include on-demand capacity and load balancing as required based on capacity and service level objectives
7.2 Change Management	Defined methods and manners in which change is introduced to internal and external processes and components	Document, distribute and adhere to change management processes for introducing change into the production Environment

## 8. Integrity Requirements

Consistency of events, values, methods, measures, expectations & outcomes, thereby defining the integrity of the data and the processes relying upon them.

NFR	Definition	RECOMMENDED NFR for TGMS
8.1 Data integrity	The degree to which the data maintained by the software system are accurate, authentic, and without corruption.	The solution must protect Canada's Data from unauthorized access, modification, or exfiltration. This includes implementing and maintaining appropriate technical and organizational security measures including information security policies, procedures, and security controls to preserve the confidentiality, integrity, and availability of Canada's Data.
8.2 Information Integrity	Information Integrity is the trustworthiness and dependability of information. More specifically, it is the accuracy, consistency and reliability of the information content, processes and systems.	Information content, processes and systems must adhere to NFR 2.2.1 Audited Objects

## 9. Operational Requirements

Parameters surround the maintenance requirements of the system and the level of support required. This includes physical constraints (size, weight), personnel availability, skill level considerations, system accessibility for maintenance, and the immediate and/or long-term costs of acquiring and maintaining the solution

NFR	Definition	RECOMMENDED NFR for TGMS
9.1 Personnel Availability	This defines the availability solution provider human resources available to support the solution	The solution should provide the ability to submit issue tickets 24x7, and receive support in adherence to an agreed upon SLA based on issue impact.
9.2 Skill-level Considerations	What are the skill level requirements of internal staff to support external users, and escalate technical issues to the vendor's support organization?	Internal staff should be capable of supporting business related support requests and gather information to escalate technical issues to the provider.
9.3 Interoperability	Interoperability defines requirements around how well the system integrates with and works with external systems.	The solution must: a) Provide services that use open, published, supported, and documented Application Programming Interfaces (API) to support activities such as interoperability between components and to facilitate migration of applications; b) Provide a means via API for applications to provision services, and extract reporting, billing and financial data pertaining to the cloud services consumed by the GC; and c) Take reasonable measures to protect both internal and external APIs through secure authentication methods. This includes ensuring that all externally exposed API queries require successful authentication before they can be called and providing the ability for the GC to meet the GC's standards on API ( <a href="https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/government-canada-standards-apis.html">https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/government-canada-standards-apis.html</a> ).

## 10. Interface/Accessibility Requirements

Interface requirements define how the system should interact with its environment, users and other systems, for example requiring the system to hold to the principle of "Ask me once" when asking for user information.

NFR	Definition	RECOMMENDED NFR for TGMS
10.1 Approved Standard Look and Feel	The interface used by the solution must adhere to all the GC regulations on standard look and feel.	<p>Adherence to Government standards on:</p> <ul style="list-style-type: none"> <li>• Web Accessibility  <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601</a>. The Government of Canada's web accessibility standard is an adoption of W3C's 5 conformance requirements for Web Content Accessibility Guidelines (WCAG) version 2.0</li> <li>• Web Usability  <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=24227">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=24227</a>. This standard outlines Government of Canada website address standards, user notice statements, branding, and user-centric design requirements</li> <li>• Web Interoperability  <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25875">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=25875</a>. This standard defines the web feed, character encoding, mark-up language, and HTML data requirements.</li> <li>• Optimizing Websites and Applications for Mobile Devices  <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27088">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27088</a>. This standard provides mobile device browser specific guidance to the implementation of web usability measures.</li> </ul>
10.2 Accessibility - Mobile Devices	The system should be optimized for mobile access according to industry best practices and in compliance with all government standards and regulations.	<p>Adherence to Government standards on:</p> <p><a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27088">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=27088</a></p>
10.3 Bilingual	The user is able to toggle between both official languages during a session and the solution is compatible with the desktop settings of the user with regard to official languages.	<p>The system adheres to the Directive on Official Languages for Communications and Services:</p> <p><a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26164">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=26164</a></p>
10.4 Advanced Character Set	The solution must be able to process and display specialized characters beyond both Official Languages	<p>These can include, but are not limited to:</p> <ul style="list-style-type: none"> <li>-Greek characters,</li> <li>-Mathematical symbols and equations</li> <li>-Unified Canadian Aboriginal syllabic characters</li> </ul>

NFR	Definition	RECOMMENDED NFR for TGMS
10.5 Search Function	The user has the capability to search the content / document management system using a variety of meta-data elements and other search criteria, with the ability to link to source information from search results.	Boolean search functions, the ability for the system to ignore case and control characters (including accents), the ability to search for advanced character sets.
10.6 Web Traffic	Web analytic insights.	The solution must be able to provide web analytics in order to understand and optimize user behaviour.
10.7 Browser Support	Define the browsers that should be supported by the solution	<p>The Respondent must demonstrate that the proposed solution is accessible across various form factors and context of use.</p> <p>The proposed solution must support the most common browsers, defined as the top 5 browsers by market share as determined by NetMarketShare.</p>
10.8 Accessibility	The Government of Canada Standard on Web Accessibility ensures the uniform application of a high level of web accessibility across Government of Canada websites and web applications.	<p>As defined but the following accessibility standards:</p> <p><a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601</a></p>

## 11. GC Standards

GC Standards indicate the specific regulations put into effect by Government of Canada governing bodies.

NFR	Definition	RECOMMENDED NFR for TGMS
11.1 Information Management	Information is managed to meet requirements for the government as a whole, including official languages	<p>As outlined by the GC Policy on Service and Digital section 4.3</p> <p><a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32601">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32601</a></p>

NFR	Definition	RECOMMENDED NFR for TGMS
	legislation and policies, what information is used, how it is organized, described, etc., as well as the specific requirements determined by departmental operational needs and accountabilities.	
11.2 Record Keeping	Recordkeeping is a resource management function through which information resources of business value are created, acquired, captured, managed in departmental repositories and used as a strategic asset to support effective decision making and facilitate ongoing operations and the delivery of programs and services.	As outlined by the GC Policy on Service and Digital section 4.3.1 <a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32601">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32601</a>
11.3 Open Government	The objective of Open Government is to maximize the release of government information and data of business value to support transparency, accountability, citizen engagement, and socio-economic benefits through reuse, subject to applicable restrictions associated with privacy, confidentiality, and security.	Data destined to be published openly must do so in an open format as outlined in the GC Directive on Open Government <a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=28108">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=28108</a>
11.4 Accessible Canada Act	The purpose of this Act is to ensure those disabilities, have equal access to information and communication technologies, the	As outlined by the Accessible Canada Act <a href="https://laws-lois.justice.gc.ca/eng/acts/A-0.6/page-1.html#h-1153395">https://laws-lois.justice.gc.ca/eng/acts/A-0.6/page-1.html#h-1153395</a>

NFR	Definition	RECOMMENDED NFR for TGMS
	procurement of services, and the design and delivery of programs; without the prevention of barriers.	
11.5 GC Digital Standards	The Government of Canada's Digital Standards form the foundation of the government's shift to becoming more agile, open, and user focused.	As outlined by the GC Digital Standards <a href="https://www.canada.ca/en/government/system/digital-government/government-canada-digital-standards.html">https://www.canada.ca/en/government/system/digital-government/government-canada-digital-standards.html</a>
11.6 Policy on Service and Digital	The Policy on Service and Digital and supporting instruments serve as an integrated set of rules that articulate how Government of Canada organizations manage service delivery, information and data, information technology, and cyber security in the digital era.	As outlined here: <a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32603">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32603</a>
11.7 Directive on the Management of Projects and Programmes	The directive ensures that government projects and programmes are effectively planned, implemented, monitored, controlled, and closed, so that the expected benefits and results are realized for Canadians.	As outlined here: <a href="https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32594">https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32594</a>

### ***Introduction***

The TGMS service architecture focuses on detailing the end-to-end inventory of business services required to support the target business solution, which will deliver the TGMS business capabilities.

Note: The services architecture is not limited to only those services that will be enabled directly by the procured solution. Rather, it reflects the totality of required core business services.

### ***A. Profile Services Suite***

This service suite is accountable for managing the collection, delivery, management, and quality assurance of Bio-Profiles, as well as their related stakeholder Consents.

#### ***A.1 Bio-Profiles Management Service***

This service manages the delivery of Bio-Profiles for use in the grants management process. A bio-profile contains the baseline definition of a person. Each person has one bio-profile, which describes the core attributes of that person. The bio-profile can be used to create one or more curriculum vitae (CV) that contains a ‘purpose-built’, tailored description of that person that is targeted for the specific purpose of a given Funding Opportunity.

#### ***A.2 Stakeholder Bio-Profile Definition Service***

This service provides people (e.g., grant applicants and co-applicants, reviewers, research administrators, funding agency staff) with the ability to create and edit their individual bio-profiles.

#### ***A.3 Bio-Profiles Review and Reporting Service***

This service conducts quality assurance reviews of bio-profile information, reports on the relative completion of the funding agencies’ bio-profiles and determines the overall quality of the bio-profile information managed by the funding agencies.

#### ***A.4 Bio-Profile User Support Service***

This service delivers business and IT support to people entering their bio-profile, such as addressing questions and problems regarding business rules and IT.

#### ***A.5 Bio-Profile Continual Improvement Service***

This service periodically reviews the performance and usability of bio-profile policy, procedures, and tools, and recommends improvements.

#### ***A.6 Bio-Profile Tools Promotion and Familiarization Service***

This service manages the promotion of tools that make stakeholders aware of, and capable of leveraging facilities to manage the creation, editing, validation, and review of bio-profiles.

#### ***A.7 Bio-Profile Policy and Operations Coordination Service***

This service coordinates between the areas of bio-profile management and the funding agencies’ policy making organizations.

#### ***A.8 Consents Management Service***

This service manages the collection and usage of consents that people (e.g., applicants, co-applicants, reviewers, agency staff) and organizations (e.g., funding agency partners, co-applicants or applicant partners) grant to a funding agency. These consents are largely intended to enable the funding agencies to collect and disclose information related to a person or organization, however consents may also involve other business areas.



### *A.9 Consent Rule Definition Service*

This service defines the rules that determine the kinds of consents that people (e.g., applicants, co-applicants, reviewers, agency staff) or organizations (e.g., funding agency partners, co-applicants or applicant partners) need to provide, in order to enable the funding agencies to collect and disclose information related to that person or organization.

Funding agency governance guidelines define the consents that must be solicited from people and organizations.

### *A.10 Consents Compliance Monitoring Service*

This service monitors the adherence of the funding agency to the consent-based information management rules that are applicable in a given time period.

### *A.11 Personal Access Definition Service*

This service determines the accesses that a person will require in order to perform their grants management business role and initiates the granting of the appropriate access privileges.

## **B. Funding Opportunity Services Suite**

This service suite is accountable for managing the lifecycle of a Funding Opportunity, from its creation through to its retirement. This includes:

- Defining requirements;
- Defining budgets and funding;
- Defining performance targets; and
- Defining approvals.

### *B.1 FO Management Service*

This service manages the delivery of Funding Opportunities.

### *B.2 FO Requirements Definition Service*

This service designs a funding opportunity, establishing the scope, rules, and requirements for the FO.

### *B.3 FO Budgeting and Funding Definition Service*

This service defines budgets for Funding Opportunities, including defining budgets for the overall Funding Opportunity.

### *B.4 FO Performance Definition Service*

This service defines the expected performance measurement properties at all levels of a funding structure that relate to a funding opportunity.

### *B.5 FO Definition Approval Service*

This service manages the solicitation and receipt of approval for Funding Opportunity designs and changes.

## **C. Funding Cycle Services Suite**

This service suite is accountable for managing the lifecycle of a Funding Cycle (i.e., a competition), from its initial definition, through to its launch and execution, including monitoring the orderly progress of the Funding Cycle.

### *C.1 Funding Cycle Management Service*

This service manages the definition and execution of Funding Cycles (i.e., competitions).

### *C.2 Funding Cycle Definition Service*

This service defines the Funding Cycles (i.e., competitions), that will be executed from a given Funding Opportunity. This includes defining the attributes of a Funding Cycle (e.g. funding cycle dates, and changes to Funding Opportunity requirements).

### *C.3 Funding Cycle Monitoring Service*

This service monitors the events related to an active Funding Cycle.

### *C.4 Funding Cycle Approval Service*

This service manages the solicitation and receipt of approval for Funding Cycle designs, changes, and operational decisions.

## **D. Committee Services Suite**

This service suite is accountable for managing the lifecycle of the funding agency's Committees, including each Committee's creation (and definition), membership recruitment, assignment to specific taskings, planning and logistics for meetings, and recording of meeting notes and decisions.

### *D.1 Committees Management Service*

This service manages the delivery of services related that leverage committees.

### *D.2 Committees Definition Service*

This service defines the committees that the funding agencies will employ to manage and review applications to Funding Opportunities.

### *D.3 Committee Membership Definition Service*

This service staffs a committee, based on the direction provided in the definition of the Funding Opportunity requirements, and based on direction from senior management.

### *D.4 Committee Meetings Planning Service*

This service plans committee meetings, based on requirements defined by the Funding Opportunity and the Funding Cycle, as well as ad-hoc requirements defined by funding agency senior management.

### *D.5 Committee Meeting Logistics Definition Service*

This service provides logistical support to the conduct of committee meetings.

### *D.6 Committee Activities Monitoring Service*

This service provides support to the conduct of committee meetings.

### *D.7 Committee Activity Approval Service*

This service manages the solicitation and receipt of approval for committee-related activities and decisions such as:

- Defining committees;
- Defining committee memberships;
- Planning committee meetings;
- Defining committee meeting logistics; and
- Monitoring committee activities.

### *D.8 Committee Assignment Definition Service*

This service assigns service requests to a committee who will conduct their assessment. This includes:

- Determining the most suitable committee, given the subject matter of the service request, and the workload of the committees;
- Addition of the service request to the committee's workload;
- Providing direction to the committee on schedules and deadlines related to the service request;
- Transferring service requests from one committee to another;

- Soliciting governance approval for the recommended committee assignment; and
- Handling senior management demands regarding the management of committee assignment and scheduling.

## ***E. Program Literature Services Suite***

This service suite is accountable for managing the lifecycle of the funding agency's Program Literature, including the planning, preparation and distribution of Program Literature to the research community.

### ***E.1 Program Literature Management Service***

This service manages the overall production and distribution of program literature.

### ***E.2 Program Literature Planning Service***

This service plans the preparation (creation and editing) of program literature for every level of the funding structure, including Funding Opportunities, Funding Cycles, and committees.

### ***E.3 Program Literature Preparation Service***

This service creates and edits program literature for Funding Opportunities and Funding Cycles.

### ***E.4 Program Literature Distribution Service***

This service manages the distribution of approved program literature to people, organizations, publications, and websites. Distribution of program literature follows the distribution plans defined in advance during Funding Opportunity design and program literature planning.

### ***E.5 Program Literature Approval Service***

This service manages the solicitation and receipt of approval for program literature for release and distribution.

## ***F. Partnership Services Suite***

This service suite is accountable for managing the lifecycle of the funding agency's relationship with internal and external partners, who participate in enabling research and realizing funding opportunities. This includes the creation of partnerships through solicitation of partners for funding agency Funding Opportunities, the definition of partnership roles and responsibilities, and the monitoring of the efficacy of the partner relationship.

### ***F.1 Partnerships Management Service***

This service manages the creation and maintenance of research-enabling partnerships between the funding agency and individuals, and/or other public and private sector organizations.

### ***F.2 Partners Solicitation Service***

This service manages the efforts of the funding agency to identify potential partners.

### ***F.3 Partner Onboarding/Offboarding Service***

This service completes the process of establishing or dissolving a partnership between the funding agency and an external partner, for the purposes of delivering support to one or more Funding Opportunities.

### ***F.4 Partnership Monitoring Service***

This service monitors the events related to a partnership.

### ***F.5 Partner Approval Service***

This service manages the solicitation and receipt of approval for forming a partnership between the funding agency and an external partner, for the purposes of delivering support to one or more Funding Opportunities.

## G. Application Services Suite

This service suite is accountable for providing the research community with the ability to create and submit Curriculum Vitae (CVs) and service requests to the funding agency. Service requests include such submissions as funding applications, appeals, amendments, application nominations, allegations, intents to apply, and institutional eligibility.

### G.1 Service Request Preparation and Submission Service

This service provides the ability for applicants, co-applicants, collaborators, partner organizations, and research administrators to capture and submit their service request information and supporting documents. A service request application may be in collaboration with one or many participants. This service includes support for such service requests as:

- Funding application: an applicant creates a funding request to be sent to the educational institution for review and/or the agency to be assessed.
- Appeal: an appeal provides the applicant the opportunity to seek reconsideration of a funding decision where evidence suggests that a procedural error occurred during the review of the application.
- Amendment: any change made to an approved application is considered an amendment. Requests to make application amendments after the competition deadline are only permitted under exceptional circumstances or when explicitly permitted by the funding opportunity.
- Application nomination: the research administrator may nominate an applicant, and request that the applicant complete an application.
- Allegation: Allegations of misconduct in research and scholarship may arise from anonymous or identified sources within or outside the research institution.
- Intent to apply: in the case when registration is required, the applicant must submit a letter of intent in order to apply.
- Institutional Eligibility: which establishes an organizations' (i.e., a research institution's) conformance to the governance criteria that enable the organization to administer funds.

### G.2 CV Preparation Service

This service provides the ability for people to create a CV that describes their identification and qualification information. The CV is a subset of the bio-profile and is created as a tailored view of the person's bio-profile information. It is intended to serve in the submission of a particular funding opportunity's service request or illustrate a reviewer's expertise for peer review. The relevant funding opportunity's governance determines whether a CV is required for a particular service request, and what categories of information are required.

The CV is a private document that is not available for funding agency staff to view until such time as it is formally submitted as part of a service request, or for advisory committees.

The person authors the CV, based on their bio-profile information, and:

- Selects only the bio-profile information that the person considers germane to the specific service request;
- Creates and edits the content of the CV, modifying the bio-profile information to meet the service request requirements, and adding additional information sections as necessary (i.e., information that is not otherwise found in the bio-profile); and
- Attaches the CV as part of the service request.

## H. Assessment Services Suite

This service suite is accountable for managing the assessment of a Service Request. This includes assessment of a submitted application's completeness and eligibility, managing the assignment of assessments to Committees and individual Reviewers, collection of assessments and funding recommendations from Reviewers, Committees, and Institutions (e.g., institutions' independent

assessments), and definition of recommended funding scenarios (as required) for the assessed service request application.

### *H.1 Assessment Management Service*

This service manages the delivery of service request assessments.

### *H.2 Service Request Completeness Assessment Service*

This service manages the initial review of a service request. The initial review of the service request application is intended to verify that the information provided by the applicant is complete (i.e., complies with the applicable governance guidelines) and usable (e.g., the information is not corrupted or otherwise unusable), and suited for the subsequent assessment processes.

### *H.3 Service Request Remediation Service*

This service manages the funding agency's interaction with the service request applicant to remediate problems identified in the assessment of the submitted service request.

The degree to which corrections to problematic applications can be performed, is defined by the applicable governance guidelines (e.g., funding agency governance rules, and associated governance rules such as those established by the applicable funding opportunity or funding cycle).

### *H.4 Service Request Eligibility Assessment Service*

This service determines the eligibility of the submitted service request, against the governance rules that are applicable to the service request. This includes validation of the service request against the funding agency governance rules, as well as against rules defined by the specific funding opportunity or funding cycle (e.g., rules related to amendments).

Eligibility assessment may include one or more of the following examinations:

- Applicant eligibility
- Subject matter eligibility
- Participant eligibility
- Partner organization eligibility
- Institutional eligibility
- Regulatory eligibility
- Funding opportunity specific eligibility
- Appeal eligibility

### *H.5 Individual Review Service*

This service conducts an individual reviewer's assessment of a service request, whether the service request is assessed as a staff review (i.e., the review is conducted by funding agency staff) or by reviewers of a funding agency committee.

### *H.6 Institution Review and Recommendation Service*

This service conducts the assessment of service requests where the review process is handled at the institution level (e.g., funding opportunities such as the Canada Graduate Scholarships – Masters - CGSM). The review process is completed at the institution level, and the funding agency receives the results of the institution's review.

### *H.7 Committee Adjudication Service*

This service manages a committee's assessment and recommendation of a service request.

### *H.8 Funding Scenarios Definition Service*

This service manages the definition and adjustment of funding scenarios for the recommended service requests, which defines the final list of awards, their funding, and their conditions.

## ***I. Reviewer Services Suite***

This service suite is accountable for managing the lifecycle of a Reviewer, including recruitment, assignment, and stakeholders' approval of assessment tasks. This service suite is also accountable for managing the pool of Reviewer resources used by the funding agency.

### ***I.1 Reviewer Assignment Confirmation Service***

This service manages the funding agency's interaction with the reviewer who is being invited to assess a service request.

### ***I.2 Reviewer Resource Pool Management Service***

This service manages the community of reviewers who can be deployed to review submitted service requests. Reviewers may be agency staff who perform reviews, as well as non-employee reviewers and international reviewers. Similarly, some reviewers are 'External Reviewers' (also termed 'External Referees', or 'Readers') who are not committee members, and who may only be engaged for special cases.

### ***I.3 Reviewer Recruitment Service***

This service recruits new reviewers for the funding agency's reviewer resource pool (e.g., the College of Reviewers).

### ***I.4 Reviewer Onboarding/Offboarding Service***

This service manages the process of adding a person to the funding agency's reviewer resource pool (onboarding) or removing a reviewer from the reviewer resource pool (offboarding). A reviewer may be an employee of the funding agency, or a non-employee resource who conducts reviews at the behest of the funding agency.

### ***I.5 Reviewers Decision Approval Service***

This service manages the solicitation and receipt of approval for recommended decisions regarding the selection and management of reviewers.

### ***I.6 Reviewer Assignment Definition Service***

This service matches reviewers from the reviewer resource pool to a specific application assessment activity.

### ***I.7 Stakeholder Approval of Reviewer Service***

This service provides a channel for the stakeholder who submitted a service request (e.g., grant applicants and co-applicants, reviewers, research administrators, funding agency staff), to approve the funding agency's assignment of a reviewer for their service request.

## ***J. Awards Granting Services Suite***

This service suite is accountable for managing the granting of an Award, including making and approving award decisions (based on assessment results), defining the special conditions and funding allocations for each award, confirming the willingness of the applicant to receive the award, communicating the granting of the award to all stakeholders, and tracking the performance of award granting services.

### ***J.1 Awards Management Service***

This service manages the delivery of Awards.

### ***J.2 Awards Funding Allocations Service***

This service manages the division of funding for Awards, including defining funding schedules and payment schedules for individual Awards.

### ***J.3 Awards Options and Conditions Recommendations Service***

This service makes recommendations to applicants regarding opportunities (such as joint initiatives and supplemental awards) and special conditions that will apply to an Award that they have been granted.

#### *J.4 Awards Decision Service*

This service manages the decision-making process that finalizes the selection of an application for granting of an Award.

#### *J.5 Awards Acceptance Service*

This service solicits and secures the applicant's response to an Award decision document.

#### *J.6 Award Results Communication Service*

This service provides the Notice of Decision to the relevant stakeholders, provides the public announcements that follow the acceptance of an Award by the successful applicant, and makes the information concerning the decisions available for online browsing and reporting (by relevant stakeholders).

#### *J.7 Awards Ministerial Approval Service*

This service manages the solicitation and receipt of ministerial approval for Awards.

#### *J.8 Awards Performance Definition Service*

This service defines the expected performance measurement properties of Awards management.

#### *J.9 Awards Decision Approval Service*

This service manages the solicitation and receipt of approval for decisions regarding Awards.

### **K. Payment Services Suite**

This service suite is accountable for managing the information required in order to direct the financial systems to issue and receive payments related to a granted Award. This includes definition and approval of outgoing payments for disbursement, and incoming payments for refunds, as well as provision of payment-related support to stakeholders.

#### *K.1 Payment Instructions Definition Service*

This service manages payment instructions that direct the funding agency's financial organization to plan and execute payment transactions (both incoming and outgoing payments).

#### *K.2 Payment Support Service*

This service manages support-interactions between outside parties and the funding agency, on inquiries regarding payments.

#### *K.3 Payment Refund Administration Service*

This service manages the planning and tracking of refund payments that are issued by external parties to the funding agency.

#### *K.4 Payment Approval Service*

This service manages the solicitation and receipt of approval for decisions regarding payments, including Financial Administration Act (FAA) Sections 33, and 34.

### **L. Administrative Services Suite**

This service suite is accountable for administering active Awards. This includes managing the processing of such actions as Amendments, which can potentially necessitate changes to the operational parameters of an active Award. The required adjustments to active awards are identified, approved and actioned as changes to the award, as well as changes to the agreements that govern the Award.

#### *L.2 Award Adjustment Service*

This service performs adjustments to the active awards. Such adjustments include changes such as alterations to research team, or changes to terms and conditions that the funding agency applied to the award (e.g., changing end of award date).



### *L.3 Amendment Management Service*

This service manages the work associated with the processing of amendments to awards that have been granted by a funding agency.

### *L.4 Amendment Approval Service*

This service manages the solicitation and receipt of approval for amendment decisions.

### *L.5 Amendment Request Submission Service*

This service provides people (e.g., grant applicants and co-applicants, research administrators, funding agency staff) with the ability to create, edit and submit requests for amendments to active awards.

### *L.6 Amendment Assessment Service*

This service conducts the assessment of amendments.

## **M. Tracking and Monitoring Services Suite**

This service suite is accountable for the ongoing review of the progress performed on an active award, during the course of the award, as well as at end-of-award. This includes performing progress and financial reviews (based on reports submitted by the Research Participant), and monitoring the fulfillment of the conditions of award.

### *M.1 Progress Review Service*

This service performs periodic reviews of the progress performed on an active award, as well as end-of-award reviews. The required reporting is defined as part of the requirements of the Funding Opportunity.

### *M.2 Financial Review Service*

This service performs periodic reviews of the financial status of an active award, as well conducting financial reviews at end-of-award.

### *M.3 Progress and Financial Report Submission Service*

This service provides people (e.g., researchers and research administrators) with the ability to create, edit and submit periodic progress and financial reports to the funding agency. This includes reports defined in the Funding Opportunity requirements and governance framework.

### *M.4 Monitor Conditional Awards Service*

This service monitors the compliance of Award grantees to the conditions that were imposed on their Award. Conditions imposed on an Award may need to be resolved prior to the start of funding, or alternatively, may extend throughout the lifecycle of the Award (e.g., a requirement for deliverables to be produced periodically). Compliance is therefore monitored throughout the lifecycle of the Award.

## **N. Allegation Services Suite**

This service suite is accountable for the handling of allegations of impropriety, that are submitted to the funding agency by external parties. This includes receiving allegations submissions from external parties, investigating them, making and approving decisions related to each allegation, and initiating the required action in response to the allegation.

### *N.1 Allegations Management Service*

This service manages the ability of the funding agency to handle allegations that are submitted to the funding agency by external parties.

### *N.2 Allegation Submission Service*

This service provides people (e.g., researchers and research administrators) with the ability to create, edit and submit allegations of funding agency policy (and other) breaches to the funding agency.



### *N.3 Allegation Investigation Service*

This service investigates allegations that have been submitted to the funding agency. Activities performed by this service follow the established funding agency governance framework for managing Allegations.

### *N.4 Allegation Decision Service*

This service manages the recommendation of resolution actions for allegations that have been investigated.

### *N.5 Allegation Approval Service*

This service manages the solicitation and receipt of approval for allegation decisions.

## **O. Audit and Evaluation Services Suite**

This service suite is accountable for the inspection and analysis of the activities and outcomes of the grant management business. This includes definition and approval of audit and evaluation plans, as well as conducting the audits and evaluations, gaining approval for their findings, and approving the distribution of the related audit and evaluation documentation.

### *O.1 Audit and Evaluation Management Service*

This service manages the execution of audit and evaluation work.

### *O.2 Audit and Evaluation Definition Service*

This service defines the intent of an audit and evaluation activity.

### *O.3 Conduct Audit and Evaluation Service*

This service analyzes the business, based on the established scope of the audit and evaluation, generates reports to evaluate the effectiveness of the conducted business, and releases reports that describe the findings and recommendations.

### *O.4 Audit and Evaluation Approval Service*

This service manages the solicitation and receipt of approval for audit and evaluation designs and changes.

## **P. External Consultation Services Suite**

This service suite is accountable for conducting structured consultations of external and internal stakeholders (e.g., as carried out through surveys and direct contacts). This includes planning the consultations, preparation of materiel required to conduct the consultation, and managing the collection, validation, and analysis/interpretation of the received responses.

### *P.1 External Consultation Preparation Service*

This service prepares the material that is needed in order to conduct structured consultations of external stakeholders. External consultation is carried out using surveys and direct contacts, and is used to collect information (including, in order to analyze the effectiveness and efficiency of funding agency business processes such as those related to Funding Opportunities and Funding Cycles).

### *P.2 External Consultation Planning Service*

This service plans reports and surveys, based on requirements defined in the audit and evaluation plan, as well as ad-hoc requirements defined by funding agency senior management.

### *P.3 Conduct External Consultation Service*

This service executes external consultations and provides the completed reports and surveys to the funding agency.

## **Q. Analytics Services Suite**

This service suite is accountable for providing sophisticated analytics products related to the conduct of the grants management business. This includes management of tools and enablers for analytics management, as well as the production of advanced analytics reports which comply with the prevailing data privacy requirements.

### **Q.1 Analytics Management Service**

This service manages the production of analytics services for grants management data and monitors the delivery of advanced analytics services to funding agency management.

### **Q.2 Data Query Permissions Management Service**

This service defines and configures the data permissions and access privileges of funding agency staff, in order to enable them to define and execute allowable analytics on grants management data. This service provides customizable safeguards for the data that is being reported and supports compliance to security and privacy governance.

### **Q.3 Analytics Tools and Interface Management Service**

This service provides technical and governance support to the access of analytics information from funding agency data sources, as well as from external data sources.

### **Q.4 Advanced Analysis Service**

This service provides advanced analytical reports to funding agency requestors, using specialized expert resources and tools.

## **R. Communications Services Suite**

This service suite is accountable for providing information sharing and interactions with stakeholders, using the communications channels available to the funding agencies (e.g., email, telephone, chat services, or instant messaging). This includes preparation of templates for formalized communication across communication channels, creation, and translation of content for communication items, and the approvals required in order to send communication items to stakeholders. Included is also the management of distribution lists for sending communications, as well as the management of subscription lists, which stakeholders may join ('subscribe').

### **R.1 Communications Management Service**

This service manages the information sharing and interactions with stakeholders.

### **R.2 Communication Item Preparation Service**

This service creates and edits a communication item.

### **R.3 Communication Approval Service**

This service manages the solicitation and receipt of approval for communication designs and changes.

### **R.4 Distribution Groups and Subscriptions Management Service**

This service manages the administrative and planning work related to distribution groups and subscriptions. Distribution groups and subscriptions are two types of correspondence lists:

- Distribution groups are correspondence lists that are created *by the funding agency* for the purposes of communicating with groups of people (or business roles) who are engaged in business with the funding agency (e.g., researchers, research administrators, reviewers, partners).
- Subscriptions are correspondence lists that are correspondence lists that people voluntarily join. They are created by people who are interested in keeping abreast of topics that are communicated by the funding agency.

### *R.5 Distribution Group Definition Service*

This service manages the creation, modification, and deactivation of distribution groups. Distribution groups are correspondence lists that are created *by the funding agency* for the purposes of communicating with groups of people who are engaged in business with the funding agency (e.g., researchers, research administrators, reviewers, partners).

### *R.6 Subscription Categories Definition Service*

This service manages the creation, modification, and deactivation of subscription categories. Subscription categories are common-interest topics that people can join in order to keep abreast of topics that are communicated by the funding agency.

### *R.7 Distribution Groups and Subscriptions Approval Service*

This service manages the solicitation and receipt of approval for decisions relating to distribution groups and subscription categories.

## **S. Service Support Services Suite**

This service suite is accountable for delivering service desk support to internal and external stakeholders of the grants management business. This includes conducting multi-channel contacts with stakeholders who require support, promoting the support capabilities of the funding agencies, and continual assessment of the quality and performance of the support service.

### *S.1 Service Desk Performance Assessment Service*

This service assesses the evaluated performance of the service desk, and collaborates with stakeholders in developing executive reports that reflect the results of the service desk.

### *S.2 Promote Service Desk Service*

This service plans and executes stakeholder-targeted initiatives that promote the capability, and the availability of the service desk. Such initiatives may include familiarity campaigns, or awareness campaigns for available support capabilities.

### *S.3 Service Desk Resources Management Service*

This service manages the allocation of resources (human resources, and physical resources) required in order to deliver work related to supporting the service desk in business and technical support of internal and external stakeholders.

### *S.4 Conduct Service Desk Interactions Service*

This service provides assistance/support to internal and external stakeholders for tasks that they are attempting to complete (based on their roles).

## **T. Learning Services Suite**

This service suite is accountable for providing structured learning services to grants management business stakeholders. This includes definition and approval of Training Programs to meet the needs of the funding agencies and their external stakeholders, the preparation and delivery of multi-channel training courses and learning materials, tracking the training status of trainees, and the assessment of the performance of training programs and learning events.

### *T.1 Learning Activities Management Service*

This service manages the delivery of learning activities.

### *T.2 Training Program Definition Service*

This service creates and modifies a training program, which contains a set of learning events that may lead to a skill certification (e.g., certification to work as a research administrator, or reviewer). Training Programs may be activity-specific (e.g., teaching, editing, mentoring, expert witness review), or role-specific (e.g., targeted to train applicants, research administrators, reviewers, committee chairs,

committee members), and may be further specialized to specific requirements of individual funding opportunities.

### *T.3 Learning Event Preparation Service*

This service creates and modifies learning events (i.e., training courses) for one or more training programs.

### *T.4 Conduct Training Service*

This service manages the delivery of training to trainees.

### *T.5 Learning Material Approval Service*

This service approves the learning material in preparation for its distribution.

### *T.6 Training Monitoring Service*

This service monitors the delivery of training to individuals.

## **U. Budget Services Suite**

This service suite is accountable for defining and approving funding agency budgets for Awards (i.e., budgets for funding opportunities and funding cycles), and monitoring the consumption of the budgeted funds.

### *U.1 Budget Management Service*

This service manages funding agency budgets for awards (i.e., budgets for funding opportunities and funding cycles), and monitors the consumption of the budgeted funds.

### *U.2 Budget Definition Service*

This service defines and manages award budgets.

### *U.3 Budget Approval Service*

This service manages the solicitation and receipt of approval for budget decisions.

## **V. Standards and Integration Services Suite**

This service suite is accountable for defining, approving and adopting standards (e.g., technical and business standards) that the funding agencies establish for the grants management business. Included is the definition of the standards, as well as the establishment of compliance monitoring for the standards. Also included is the standards-building interaction ('liaison') with external organizations (e.g., ORCID, PubMed, CRA) who provide information to the funding agencies, and whose standards-based interoperability is critical to the funding agencies.

### *V.1 Information Provider Liaison Service*

This service creates and manages the relationships between the funding agency and its information-providers (such as ORCID, PubMed, or other Canadian federal government agencies such as CRA or SSC).

### *V.2 Standards Management Service*

This service manages the definition and usage of standards across the funding agencies. This service enables the funding agencies to research, define, implement, and enforce standards that ensure the agencies can interoperate consistently from a business process and business data perspective.

### *V.3 Standards Definition Service*

This service defines, updates, and maintains standards that are used in managing grants management data.

*V.4 Standards Compliance Monitoring Service*

This service monitors the adherence of the funding agency to the standards defined for the grants management business.

# Appendix A: Alignment of Service Suites to the TGMS Business Capabilities

The following table maps the TGMS service suites to the TGMS level 2 business capabilities.

Service suites	TGMS Business capabilities (level 2)
A. Profile Services	1.1 Bio-Profile Management 1.2 Bio-Profile Examination 12.1 Consent Management 12.3 Access Management 12.5 Identity Management
B. Funding Opportunity Services	2.1 Funding Structure (FS) Management 2.2 Funding Opportunity (FO) Management 2.7 Key Performance Indicator (KPI) Management 2.9 Node Closing (Acquit)
C. Funding Cycle Services	2.6 Funding Cycle Management
D. Committee Services	2.1 Funding Structure (FS) Management 2.4 Committee Management 2.5 Committee Meetings Management
E. Program Literature Services	2.3 Program Literature Management
F. Partnership Services	2.8 Partner Management
G. Application Services	3.1 Application Completion 3.2 Application Contribution 3.3 Application Management 3.4 Application Administration
H. Assessment Services	3.1 Application Completion 3.2 Application Contribution 3.3 Application Management 3.4 Application Administration 4.1 Application Completeness Validation 4.2 Application Eligibility Validation 4.3 Reviewer Management 4.4 Application Merit Assessment 4.5 Application Results Preparation
I. Reviewer Services	4.3 Reviewer Management
J. Awards Granting Services	5.2 Award Management 5.3 Notice of Decision Management 5.1 Recommendation Management
K. Payment Services	6.1 Payment Management
L. Administrative Services	5.2 Award Management 6.3 Award Monitoring 6.2 Award Amendment Management
M. Tracking and Monitoring Services	6.3 Award Monitoring
N. Allegation Services	6.5 Allegation Management
O. Audit and Evaluation Services	7.1 Reporting Requirements Management 7.2 Funding Structure Node Monitoring 7.3 Report Generation 7.4 External Reporting
P. External Consultation Services	7.4 External Reporting
Q. Analytics Services	8.1 Advanced Data Querying 8.2 Advanced Analysis 8.3 Data Visualization 8.4 Results Sharing
R. Communications Services	9.1 Communications Management 9.4 Group Management 9.5 Subscription Management
S. Service Support Services	9.6 Help Management
T. Learning Services	10.2 Learning Completion 10.3 Learning Monitoring 10.1 Learning Management
U. Budget Services	11.1 Budget Management
V. Standards and Integration Services	12.5 Identity Management 12.1 Consent Management 12.4 Data Management

Appendix J: TGMS Conceptual Application Architecture

Architecture Vision

The TGMS architecture vision is a comprehensive, end-to-end schematic of the functional application architecture components, which are envisioned to satisfy the business requirements of the TGMS business. Figure 1 depicts the *end-state* conceptual target architecture, and the subsequent subsections further describe the characteristics of each application component.

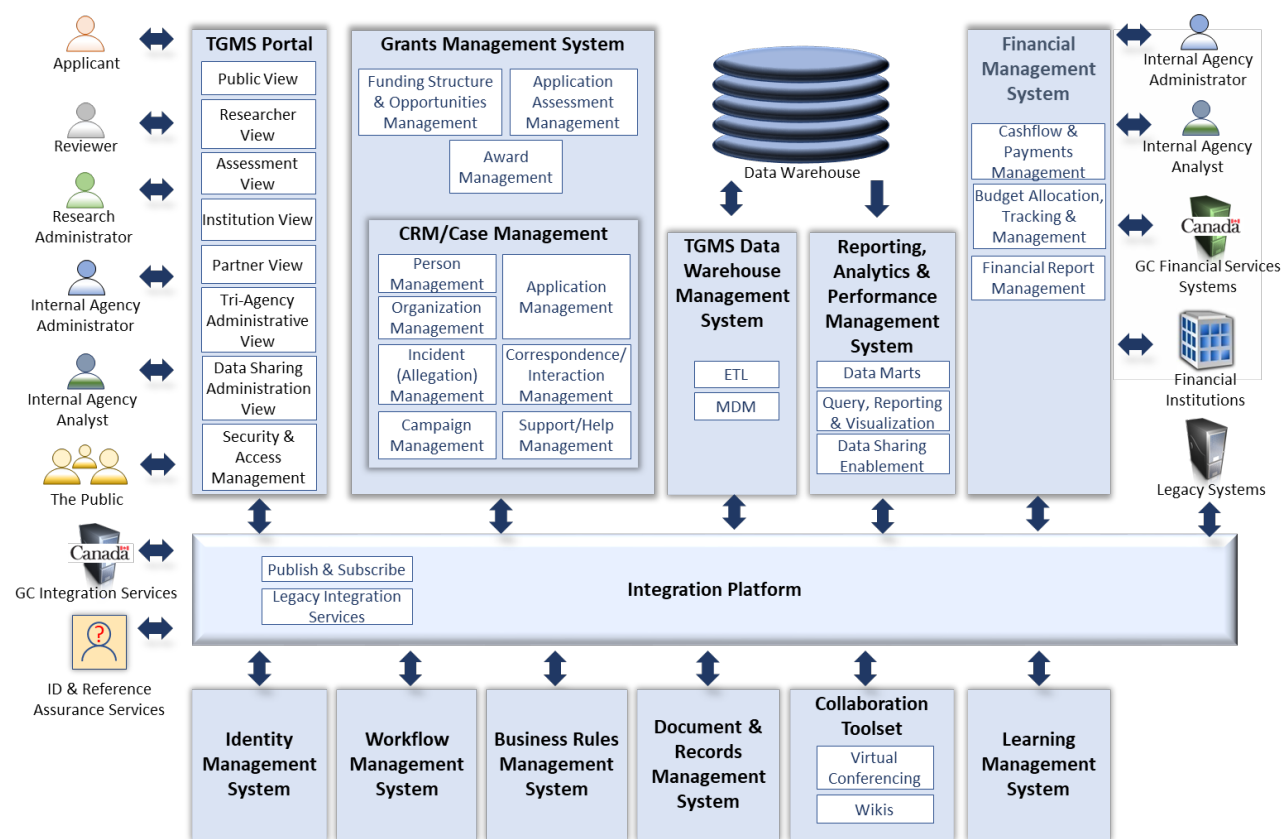


Figure 1 - TGMS conceptual target architecture (end-state)

Application Architecture Components

TGMS Portal

The TGMS Portal is the application component that provides the TGMS Solution with an electronic gateway for users to access TGMS services. It is a user-facing environment, optimized for user experience, which presents the Tri-agencies as a single grants management business environment. The TGMS Portal provides a single point of access through which internal and external users can:



- access TGMS services in a secure and scalable way, using a single, common and authoritative identity management and access management framework, which includes:
  - rules, policies, permissions and access levels are centrally defined, applied and enforced;
  - identity management - each user has a single user identifier/name and password across the TGMS landscape (through the integrated services of the Identity Management Services); and
  - user access is centrally tracked;
- experience a unified TGMS experience, interacting with the whole of the Tri-agencies, through the portal’s standardized look-and-feel presentation and accessibility layer;
- interact with the Tri-agency business through role-specific views (also called ‘targeted portlets’), which enable extensive user self-service functionality, and can be personally customizable by each user. These include views such as:
  - Public View – targeted to support the public. This view allows access to TGMS public information such as open funding opportunities or reports on funding decisions and awards without the requirement for a TGMS account;



- Researcher View – targeted to support the roles of the Applicant/Researcher and the Research Administrators. This view also allows them to access TGMS directly, in order to perform their activities;
- Assessment View – targeted to support the roles of Reviewers and the committee members tasked with assessment roles. This view also allows them to access TGMS directly, in order to perform their activities;
- Institution View – targeted to support the roles of the Research Administrators. This view also allows them to access TGMS directly, in order to perform their activities;
- Partner View - targeted to support the roles of the Research Administrators in partner organizations. Partner organizations include:
  - organizations who partner with the Tri-agencies to fund funding opportunities; or
  - organizations who partner with researchers and institutions in applying for research funding and conducting research.

This view also allows them to access TGMS directly, in order to perform their activities;

- Tri-Agencies’ Administrative View - targeted to support the roles of the Internal Agency Administrators and Internal Agency Analysts. This view also allows them to access TGMS directly, in order to perform their administrative activities;
- Data Sharing Administration View– targeted to support the roles of:
  - Internal Agency Administrators and Internal Agency Analysts, who setup data sharing permissions, as well as access and review TGMS data and reports; and
  - The Public, who access and review TGMS data and reports that have been published for public consumption as part of the Open Government initiative.
- explore and leverage available TGMS self-service functionalities across the TGMS business capabilities (including delegation of access and tasks to other users to promote collaboration);
- allow authorized users of the Institution View and Partner View, to manage their organization’s users, creating new users, configuring user permissions and removing existing users;
- search, find and view (allowable) TGMS information sources (content and documentation);
- view TGMS-related bulletins, notices and news feeds, and use common collaboration tools and social networking tools to improve communication and collaboration within the TGMS community. This improves the transparency of the TGMS process journey by:
  - clarifying and informing users on deadlines, requirements, processes, and procedures;
  - providing visibility throughout the grants management life cycle; and
- access TGMS seamlessly from a variety of end-user platforms, such as desktop/laptop computers, and mobile devices such as tablets and smartphones.

The TGMS Portal provides a ‘flow through’ access to other TGMS application components and processes, using portal integration tools. Individual portal users have appropriately configured permissions that provides the user with cross-agency access, and offers the Tri-agencies’ grant management services within a ‘single door’ access and business process path.

The TGMS Portal interacts with the other TGMS application components through the Integration Platform. Information is forwarded to the Integration Platform for interfacing with other TGMS application components. Similarly, the Integration Platform provides the TGMS Portal with user-required information from the other TGMS applications.

### *Grants Management System*

The Grants Management System (GMS) is the application component that supports the entire life cycle of grants management, from the launch of funding opportunities to the end-of-grant reporting. The GMS supports a harmonized, streamlined experience for application, assessment, decision-making, result dissemination and post-award administrative processes across all three agencies.



The GMS application component provides TGMS users with the functionality for:

- Funding Structure & Opportunities Management – which defines funding structures and funding opportunities (i.e., grant programs and competitions, their performance measurement, operational activities, benefits delivery and operational outcomes), including:
  - design and modify funding opportunity attributes (e.g., eligibility requirements, assessment requirements, scoring model, terms and conditions) and award related



- requirements (e.g., periodic reporting, financial rules, amendment rules, appeal rules), and define program literature requirements;
  - create and manage the committees that perform mission-critical activities (e.g., funding opportunity design and management, research application assessments), manage committee memberships, committee schedules, and view committee-related information;
  - configure, launch and manage funding cycles (i.e., competitions within a funding opportunity);
  - create and manage key performance indicators (KPIs) to report against agencies' Departmental Results Framework (DRF), and define the internal reporting requirements for any level of the funding structure;
  - close funding opportunities and reallocate their unused budgets; and
  - manage the governance and approval processes for the Funding Structure & Opportunities Management processes, including online requests for approval and electronic signature-enabled approvals.
- Application Assessment Management – which enables agencies to conduct multiple concurrent assessments, each of which may differ significantly in procedure, subject matter and governance authorities:
  - automated and manual validations of completeness for each submitted form (or attachment), in order to confirm that it is ready for subsequent assessment processes. This includes automated and manual assessments of eligibility that determine whether the application is eligible for its corresponding funding opportunity (e.g., eligibility of applicants, subject matter, participants, partner organizations, institutions and regulatory constraints), as well as submission document constraints (e.g., rules for page limits, fonts, margins);
  - assign or re-assign applications to merit review committees, while maintaining records that audit the history of transfers;
  - manage a pool of accredited grant application reviewers for merit reviews, select reviewers for specific grant applications (e.g., matching reviewers to grant applications based on availability, expertise, conflict of interest, language conflicts, nominations), and manage the reviewer's task acceptance, formal assignment process;
  - manage the process of scheduling, tracking and collecting written reviewer assessments, providing online facilities for reviewers to enter, update, score, review and submit their assessments. Provide agency administrators with tracking tools and reviewing tools to manage the status of the overall assessment process, as well as access to completed assessments for preparation of committee distribution materials;
  - manage the process of capturing and collecting committee deliberations on grant applications, sharing it with relevant stakeholders, and providing automated and manual facilities for scores to be aggregated into rankings and binned lists for decision-making;
  - automatically and manually create funding scenarios that explore opportunities and various configurations in established budgets, and consider diverse factors (e.g., success rates, equity groups, average grant sizes, budget amounts, budget envelopes, and/or pools). Funding scenarios can then be manually fine-tuned and approved for implementation; and
  - manage the governance and approval processes for the Application Assessment Management processes, including online requests for approval and electronic signature-enabled approvals.
- Award Management – which includes functionality to manage the decision-making process, the granting of awards to successful applicants, and the launching of the post-award activities. This includes:
  - managing information related to the decision-making process for applications to be recommended for funding, while managing the definition and handling of such constraints as conditional awards and validated institutional eligibility;
  - managing the process of issuing award offers, and processing their acceptance by researchers and organizations;
  - creating awards and updating existing awards (e.g., adjust award amounts, rescind or close the award, interrupt or reinstate the award), and viewing awards and their partner information;

- creating and managing budgets for each award, and reallocating unused budget amounts as necessary;
- automated and manual generation of communications for competition results (e.g., notices of decisions), and managing the response to notice documents (such as a notice of decision);
- creating and managing funding and payment schedules (including such transactions as refunds from institutions, or deferral of payment installments), reconciling payment data and providing the Financial Management System (FMS) with information that directs the FMS in properly executing financial transactions;
- managing amendments to existing awards and communicating amendment decisions to recipients;
- supporting the progress monitoring of awarded projects, the conduct of financial reviews, validation of ongoing eligibility, management of missing deliverables; and
- managing the governance and approval processes for the Award Management processes, including online requests for approval and electronic signature-enabled approvals.

The GMS interacts with the other TGMS application components through the Integration Platform. Information is forwarded to the Integration Platform for interfacing with other TGMS application components. Similarly, the Integration Platform provides the GMS with required information from the other TGMS applications.

### *CRM/Case Management*

The CRM/Case Management System (CRM) is the application component that manages information and processes related to:



- identities and profiles of people and organizations involved in the conduct of TGMS business processes;
- supporting and managing:
  - ongoing communications between the Tri-Agencies and their TGMS actors;
  - campaigns launched by the Tri-agencies in support of the TGMS business; and
- handling of cases (e.g., business problems, allegations) which require actioning by the Tri-agencies.

The CRM application component provides TGMS users with the functionality for:

- Person Management – which includes functionality to create and manage profiles for people:
  - Profiles for persons includes creating and managing one or more bio-profiles (which comprise a person’s curriculum vitae, as well as other essential personal profile information). The bio-profile is essential to TGMS users such as researchers/applicants, their research staff, research administrators or reviewers. This includes:
    - creating and managing a person’s profile information, which includes ‘tombstone’ profile information, self-identification information (e.g., such population group information as citizenship, visible minority, gender, language skills and language preferences), as well as role specific information (e.g., researcher-specific characteristics, or reviewer-specific characteristics);
    - creating and managing additional bio-profiles that are tailored to a given grant application, but are based on the person’s profile information;
    - providing user-friendly online and offline facilities for capture of bio-profile information;
    - providing automated capture and validation of bio-profile details from external sources (e.g., extraction of a person’s publications data from such sources as PubMed or ORCID);
    - preventing the Tri-agencies from accessing the bio-profile information until such time as it is formally submitted to TGMS by the owner – allowing access only to the institution’s application preparation team (e.g., applicants, co-applicants, the institutions’ Research Grants Offices) until the application is formally submitted;
    - soliciting and enforcing owner-specific consents for distribution and usage of the bio-profile information;

- soliciting and securing electronic signatures for agreements between the person and the Tri-agencies (e.g., non-disclosure agreements);
    - providing read access of bio-profiles' selected information, in order to enable:
      - reviewers to assess eligibility of application participants;
      - administrative staff to perform such roles as reviewer recruitment, eligibility validation; and
    - managing the governance and approval processes for the Person Management processes, including online requests for approval and electronic signature-enabled approvals.
  - Organization Management – which includes functionality to create and manage profiles for organizations:
    - Profiles for organizations includes:
      - creating and managing an organization's core profile information, which includes 'tombstone' profile information, (e.g., organization names, CRA business number, lines of business, affiliations, locations, industry classifications such as business sectors or North American Industry Classification System, ministerial portfolio, contacts, resource counts, human resource management policies);
      - capturing and managing information related to an organization's governance and administration practices (e.g., management and oversight of grants and awards, financial controls, financial management approach, financial risk profile, sources of revenue and funding);
      - soliciting and securing electronic signatures for agreements between the organization and the Tri-agencies (e.g., non-disclosure agreements);
      - conducting periodic Tri-agencies' reviews of organizations, as well as assuring the eligibility of the organization (e.g., institutional eligibility, regulatory eligibility) to participate in the Tri-agencies' funding activities – assuring appropriate continued compliance of organizations to applicable Tri-agencies policies;
      - ongoing monitoring of organization funding accounts for research and researcher accounts;
    - managing the governance and approval processes for the Organization Management processes, including online requests for approval and electronic signature-enabled approvals.
  - Application Management – which enables the capture, review and validation of grant applications and administrative service requests (e.g., amendments and appeals). This includes:
    - providing facilities for the research community (application participants, including administrators, co-applicants, collaborators, partner organizations) to prepare, edit, review, submit or withdraw applications and capture their related information (e.g., research proposals, CVs, budget information, sponsor letters, eligibility forms). This also includes facilities to transfer applications to another funding opportunity;
    - application administration and management facilities that allow applicants (or their research administrators) to review and endorse applications, request supplementary information, approve participation of applicants;
    - application administration and management facilities that enable management of, and validation of, information related to partnering arrangements that may underlie grant applications (e.g., associated collaborative agreements, eligibility, fund-matching requirements);
    - issuing decision notices (e.g., notices of decision, award offers, requests for supplementary information, requests for a revised application, proof of enrolment); and
    - managing the governance and approval processes for the Application Management processes, including online requests for approval and electronic signature-enabled approvals.
  - Incident (Allegation) Management – which enables the management of allegations of misconduct against researchers and institutions. This includes:
    - capturing and managing information related to the report of an allegation (e.g., documents, emails, and other materials), as well as information related to the Tri-agencies' processes to investigate, track and resolve the allegation;

- capture and management of information related to the resolution of an allegation's investigation (e.g., decision, recourse actions against researchers or institutions), and provision of reports related to the allegation; and
- managing the governance and approval processes for the Incident (Allegation) Management processes.
- Correspondence/ Interaction Management – which manages the processes and information that enable the TGMS business to manage the interaction with its target group communities through a variety of interaction channels. These interaction channels include telephone, email, online chat, instant messaging, person-to-person conversations, and third party communications platforms. Communications and interactions span activities ranging from consultation regarding funding opportunities and financial management, to business support and technical support. Correspondence/ Interaction Management functionality includes:
  - managing contact information that identifies people and organizations with whom the granting agencies maintain communications. The centralized management of TGMS contacts enables the Tri-agencies to leverage a single (unified) trusted source of communication contact approaches, and ensures the timeliness of the Tri-agencies' contact information;
  - conducting business communications with the TGMS community, using their individually preferred channels, their preferred contact coordinates, and their preferred language;
  - managing the collection and implementation of the consents required in order to protect individuals and organizations from disclosure of private information in the course of TGMS public communications;
  - creating and managing distribution lists that are prepared for the purpose of targeted communications. Distribution lists are collated and managed for either a one-time targeted communication (e.g., a reminder email to a set of applicants who presently share a commonality), or a long-term recurring purpose (e.g., a list of people who have applied in the past to a particular funding opportunity, or are reviewers for a particular area of research). Distribution lists may be compiled manually by Tri-agencies' staff, or may be created automatically based on contact activities and heuristically determined preferences;
  - creating and managing subscription lists that people in the TGMS community join in order to receive official notifications and content related to their particular area of interest (e.g., funding opportunities in particular research areas, research or reviewer expertise categories, or financial regulation management guidance and tips);
  - creating and managing communications templates that standardize specific types of communications sent to external parties. Each template is customized for the use of a given business purpose (e.g., Notice of Decision). Templates may include document and letter mail templates (including email or fax messages), telephone conversation templates (e.g., scripts such as help desk scripts, or outgoing message scripts), instant message or web chat templates;
  - recording and tracking details of all the various types of internal and external client interactions, for use in follow-up activities, as well as analysis of interactions and their outcomes; and
  - managing the governance and approval processes for the Correspondence/ Interaction Management processes.
- Campaign Management – which manages the processes and information that enable the Tri-agencies to send targeted mass communications to internal and/or external persons and organizations, for the purpose of informing them of developments in the business, or in order to initiate action from the recipients. Campaigns include such communications as ministerial announcements, program literature, reports, documents, funding opportunity closings, reviewer recruitment initiatives, and surveys. Campaign Management functionality includes:
  - preparing and managing the content to be used in the campaign or survey;
  - collating and managing the distribution lists to be used in the campaign or survey;
  - aggregating and presenting the campaign or survey results, and providing reports through which the agency staff can analyze the results; and
  - managing the governance and approval processes for the Campaign Management processes.

- Support/Help Management – which manages the processes and information that enable the Tri-agencies to provide the TGMS community with support that is tailored to their roles and the tasks that they are attempting to complete. Support is delivered through multiple communication channels, including email, telephone, and chat. Support/Help Management functionality uses IT Service Management (ITSM) processes to deliver support services, and includes:
  - capturing of support requests from multiple channels, generation of incident tickets to launch and track support actions, triage and escalation of issues as they arise, incident resolution, and follow-up;
  - comprehensive periodic reporting to assess the level of issues that TGMS users are experiencing (as measured by business and technical issues that have resulted in opened support tickets), and the degree and success of responsiveness of the Tri-agencies in resolving the issues and preventing them from recurring;
  - using such collaboration and support tools as co-browsing and proxy access to provide real-time assistance to TGMS users; and
  - managing the governance and approval processes for the Support/Help Management processes.

The CRM interacts with the other TGMS application components through the Integration Platform. Information is forwarded to the Integration Platform for interfacing with other TGMS application components. Similarly, the Integration Platform provides the CRM with user-required information from the other TGMS applications.

### *TGMS Data Warehouse Management System*

The TGMS Data Warehouse Management System (DWMS) is a single data warehouse facility, intended to service TGMS (as is therefore distinct from any data warehouses built by the separate agencies). The TGMS DWMS provides TGMS with the technical foundation for collecting and storing data for complex and enterprise-wide analysis.



It provides tools and facilities for data collection, preparation/standardization, cleansing, storage of the data, and its management. This includes supporting the logical segregation of TGMS data by agency, in order to protect the privacy of each agency's data.

- ETL (Extract Transform & Load) tools enable Tri-agencies' data analysts to extract data from one or more sources, format the data based on existing standards, and load it into the data into the data warehouse. They are also used to extract data from the data warehouse and load them into data marts. ETL tools are used to extract and convert data into formats appropriate for:
  - validation and cleansing (e.g., identifying and removing redundant or duplicate data, standardizing reference data, disambiguating identities of people or organizations, resolution of data integrity issues);
  - aggregation or disaggregation of data;
  - anonymization of data for use across the Tri-agencies', or for release to the public (e.g., open government, open data);
  - loading of data into the data warehouse;
  - loading of data into data marts for specialized analytics and reporting; and
  - preparation of data for forwarding to other application systems that require timely updates of clean data.
- MDM (Master Data Management) – which enables Tri-agencies' users to keep a closer watch on their data, providing automated tools to enhance and support data governance and data stewardship:
  - standardize and centralize data management;
  - ensure semantic consistency in data, and improve quality of data through consistent classification and identification of data, and data-reconciliation needs;
  - apply and enforce stewardship and governance controls, thereby enhancing accountability for the data;
  - accelerate data flow and data sharing among different organizational units within each of the Tri-agencies' funding agencies, or between the Tri-agencies; and
  - facilitate maintaining a 'single source of truth' when multiple systems contain copies of the same data, and assists in keeping data values aligned across all copies.

The DWMS interacts with the other TGMS application components through the Integration Platform. Information is forwarded to the Integration Platform for interfacing with other TGMS application components.

### *Reporting, Analytics & Performance Management System*

The Reporting, Analytics & Performance Management System (RAPMS) provides Business Intelligence tools and processes that allow end users to identify actionable information from raw data from within a single funding agency, or across all the Tri-agencies. The RAPMS provides self-service analytics data for actionable insights and improved decision making through three core components:



- Data Marts – which are repositories that are created and curated for specific business goals of specific TGMS user communities. Data marts contain information that is selectively drawn from the data warehouse, and can contain aggregated or detailed information. They are created for Tri-agencies’ users to perform self-service analysis, visualization and reporting. Specific data marts are also created for use as information distribution databases that feed open government information to public users. Data marts are specified, created and released for user consumption based on specific governance and approval processes.
- Query, Reporting & Visualization – which provides the ability for TGMS users to create reports, documents or messages for a variety of functions and audiences. This includes:
  - Business intelligence reporting, which helps focus users on *what’s* happening in the TGMS business and *why* it’s happening (e.g., performance measurement, data mining, audits). Business intelligence uses descriptive analytics to formulate conclusions about historical and current performance, providing context around changes in key performance indicators.
  - Business analytics, which leverages business intelligence reporting to produce insights for future planning (e.g., forecasting, what-if scenario analysis, predictive analytics). Business analytics and business intelligence help advise decision-makers on potential future outcomes, and enable stakeholders to make better decisions. Business analytics focuses on discovering information to improve business decision-making.
  - providing facilities for TGMS users to run complex self-service queries on large datasets (such as those resident in data marts) quickly and in real-time using multiple fields. This includes the ability to export the data for use in other tools. Privacy constraints are automatically provided through:
    - TGMS user roles; and
    - data-driven privacy rules that determine the contents of the data marts that are made available to each user role.
  - supporting Tri-agencies’ staff in conducting data analyses using inferential statistics and predictive analytics. This includes:
    - ‘native’ modeling or machine-driven techniques that are provided ‘out-of-the-box’ by the analytics software. This includes the facilities to create, modify and customize data visualization analyses, and present advanced graphics (e.g., graphs, maps, animations) using advanced queries and data analyses; and
    - provision of data for users to use when they build customized analytics software using such environments as R or Python.
  - providing the essential reporting that has been specified for the Tri-agencies’ individual funding structures, from such perspectives as:
    - a retrospective perspective (e.g., how has this funding structure component performed this past year);
    - a monitoring perspective (e.g., what’s the ongoing effectiveness of a given funding structure component, based on KPIs or application data); or
    - what would best serve the purpose of proactive disclosure; and
  - managing the governance and approval processes for Query, Reporting & Visualization processes.
- Data Sharing Enablement – which provides the Tri-agencies’ staff with the ability to share valuable operational information across the Tri-agencies (based on strict privacy and confidentiality rules), and perform better business intelligence and analytics. Data Sharing Enablement includes facilities that specify and ensure compliance to such data privacy

protection tools as aggregation and anonymization of detailed data, or definition of appropriate distribution parameters for shared data (e.g., user communities, user roles, protection levels of distribution channels). Data Sharing Enablement includes:

- supporting Tri-agencies’ staff in sharing the results of their analyses with internal and external stakeholders, thereby providing the TGMS community with the ability to explore and conduct further analysis of data in such areas as funded research, or funding decisions. This includes:
  - sharing structured and unstructured information using data marts that are created for the express purpose of enabling self-service reporting by the TGMS community, or by the public; and
  - sharing generated reports in the form of dynamic visualizations that the TGMS community can use to further analyze TGMS business aspects, or as static reports that the TGMS community can read;
- supporting the processes involved in Tri-agencies’ staff applying rules-based corrections to reports; and
- managing the governance and approval processes for Data Sharing Enablement processes.

The RAPMS interacts with the other TGMS application components through the Integration Platform. Reporting and analytical information as well as access to analytical tools are forwarded to the Integration Platform for interfacing with other TGMS application components.

### *Financial Management System*

The Financial Management System (FMS) is the platform through which financial transactions are exercised, and through which the financial management ledgers are maintained. The FMS manages TGMS financial transactions based on direction provided by information provided by the GMS, and provides the GMS with reports and near-real-time information on financial transactions and position information:



- Budget Allocation, Tracking & Management – which supports the GMS in managing research budgets:
  - receiving direction from the GMS on the management of budgets (e.g., budget creation, changes, deactivation, funds transfer between budgets); and
  - reporting and providing timely information on FMS budgets (as defined to the FMS by the GMS) for each of the Tri-agencies’ cost centres (previously termed ‘funding nodes’) (e.g., program, funding opportunity, award), including description of changes and updates;
- Cashflow & Payments Management – which includes:
  - managing scheduled payments (financial commitments) and their due dates;
  - executing payments to the Tri-agencies’ payees through a direct interface to the financial institution. The FMS also receives confirmations from the financial institution on payment receipts, and forwards such information to the GMS for business tracking purposes; and
  - receiving payments from Tri-agencies’ partner organizations (e.g., public sector or private sector research funding partners), or refund payments from payees who owe money to the Tri-agencies;
- Financial Report Management – which includes provision of financial reports that describe the status of TGMS finances.

The FMS interacts with the other TGMS application components through the Integration Platform. FMS information as well as access to FMS tools are forwarded to the Integration Platform for interfacing with other TGMS application components.

The FMS is outside the scope of TGMS, however it is critical that there be a bi-directional information exchange integrating the GMS and the FMS. The GMS and FMS application components are integrated through the Integration Platform.



### Integration Platform

The Integration Platform provides an enterprise application integration capability to the TGMS architecture, enabling the integration of multiple application components in a scalable, evolvable and distributed computing service landscape. The Integration Platform provides a general-purpose facility (i.e., structured, standard-based, and extendable) for implementing loosely coupled software components.



The Integration Platform will enable the multiple, and diverse TGMS application components to work in a closely integrated manner by:

- routing information between application components' services, to:
  - enable exchange of information, and trigger business processes in application components using such message exchange patterns as 'publish & subscribe'. In 'publish & subscribe' interchanges, systems (called 'publishers') send messages to the Interface Platform rather than directly to other specific systems. The Integration Platform in turn forwards these messages to the systems to which they are intended (called 'subscribers') based on the class of the message. This exchange pattern 'future-proofs' the solution by reducing the complexity and cost of interfaces between diverse systems, simplifies maintenance, and increases scalability and evolvability of the solution;
  - resolve contentions between service components that are similar, but reside in different application components (also termed 'marshalling the use of redundant services');
- monitoring, controlling and reporting on the routing of information exchanged between application component services;
- providing commodity technical services (e.g., event handling, data transformation and mapping, message or event queuing/sequencing, exception handling) as well as implementing quality communication services across the TGMS landscape; and
- integrating with GC Integration Services (e.g., Canada's Digital Exchange Platform (CDXP), GC API Store, GC Bus) to provide GC services to TGMS.

This combination of Integration Platform services enables TGMS to integrate multiple physical systems, including new and legacy components, and operate a single, strongly governed integrated environment.

### Identity Management System

The Identity Management System (IMS) provides TGMS with a centralized facility for securing the TGMS environment, intended to meet the challenge of a complex multi-agency, multi-stakeholder, and diverse infrastructure (e.g., on-premises, multi-cloud and mobile applications) environment. The IMS is targeted to deliver a modern identity management solution that enables a digital services environment that leverages a single uniform authentication framework to provide a seamless (frictionless) and secure experience for Tri-agencies users and external stakeholders:



- integrates with GC Credential Services to authoritatively identify a person and determine their TGMS role and access privileges;
- grants access rights to users, providing such facilities as single sign-on from any device, enhanced security with multifactor authentication, thereby enabling:
  - users' access to resources and applications, whether in the cloud, on premises, or in a hybrid cloud;
  - centrally managed access certifications
  - facilitated on-boarding and off-boarding of users;
- enables centralized user information lifecycle management, protecting privileged accounts;
- provides centralized reporting on user access activities, and on identity and access management rules and configuration; and
- supports the governance and approval processes for user management and access management processes.

The IMS interacts with the other TGMS application components through the Integration Platform. Information concerning user identity and access privileges is forwarded to the IMS from other TGMS application components using the Integration Platform. The IMS responds through the Integration Platform, providing the requesting TGMS application component with the required user security information.



### *Workflow Management System*

The Workflow Management System (WMS) provides the TGMS solution with a dynamic facility that automates TGMS business processes, and supports manual business processes. The WMS integrates and coordinates business process execution across the TGMS application component landscape, creating an environment where multiple TGMS application components can collaborate seamlessly in the completion of a business process.



The WMS facilitates business processes by automating the flow of work: work items and their associated documents and are queued, tracked, and managed as they progress from arrival, through the various individuals or organization units, until the business process is fully completed. The WMS integrates with other TGMS application components to automatically manage the sequence of work activities and the invocation of appropriate human and/or IT resources associated with each activity step:

- analyze each incoming document or work item;
- establish the sequence of tasks and target dates/times for work completion;
- assemble and attach data and electronic documents to the item;
- assign the tasks to the appropriate people in the organization and maintain a task list for each individual;
- support auditing of processes;
- facilitate completion of the work item, via automatic interfaces with required application systems; and
- monitor the flow of work and the work item queues to ensure timely processing.

The WMS interacts with the other TGMS application components through the Integration Platform. Information concerning business processing events is forwarded to the WMS from other TGMS application components using the Integration Platform. The WMS then applies the applicable workflow rules, forwards business process triggers to other TGMS application components, or to individuals for manual intervention, and monitors the timely completion of the workflow (e.g., issuing reminders to workflow participants, and generating tracking information and status reports).

### *Business Rules Management System*

The Business Rules Management System (BRMS) provides the TGMS solution with a repository of business rules to automate evaluation and decision making, and reduce the manual intervention required in the TGMS business. The BRMS also centralizes the specification and implementation of critical and complex processing rules that would otherwise be dispersed and individually duplicated across the TGMS application landscape. The BRMS can be used as part of a decision-making process (i.e., as providing automated information for a final manual decision), or may be used to fully automate the decision-making.



The BRMS manages a repository of rules, which are executed upon request by an application that has been integrated with the BRMS. Data from specific business transactions are forwarded to the BRMS (using the Integration Platform), which uses the data to execute pre-defined rules, and provide decision results back to the requesting application. When the business rules need to be changed, they are modified in the BRMS (rather than in the integrated applications), and can be rolled out consistently to all applications that are affected by the change. Such rules may include automation that supports:

- validation of submitted application information (e.g., validation of the completeness of applications or reviews, amount of text allowed in different fields based on language and other criteria);
- decision-making in such areas as individual eligibility, organizational eligibility;
- defining TGMS governance approval paths across the Tri-agencies, facilitating the approvals process, and enforcing governance rules;
- automating the triggering of business processes (whether manual or automated) that are supported by more than one application component; and
- providing an overall operational picture of the TGMS workflow, its operational statuses, and performance metrics.

The BRMS interacts with the other TGMS application components through the Integration Platform. Information concerning required decision-making parameters is forwarded to the BRMS from other TGMS application components using the Integration Platform. The BRMS then applies the applicable automated business rules, and forwards a decision response to the originator of the request.

*Document & Records Management System*

The Document & Records Management System (DRMS) provides the TGMS solution with a centralized, integrated repository for business documents and corporate records. The DRMS manages the documents and records throughout their life-cycle, from creation to final disposition, thereby facilitating effective service delivery and public accountability. The DRMS manages the repository of TGMS-critical documents, which may be received from external parties (e.g., applicants, external reviewers, organizations, regulators) or internal Tri-agencies’ users (e.g., internal reviewers, decision makers, committees, internal auditors). DRMS documents are then stored centrally, and are accessible for use by all TGMS application components and TGMS users.



In the course of conducting TGMS-related business processes, documents from specific business transactions are forwarded to the DRMS (using the Integration Platform), which:

- uniquely defines the document and provides the originating TGMS application component with a persistent identifier for future access to the document;
- manages the end-to-end document lifecycle, including records file plans, document reviews, approvals, distribution, and document disposition rules, and protects documents marked as ‘corporate records’ from changes;
- provides central management of document privacy and confidentiality, ensuring that documents are only accessible by individuals who have the proper authorizations;
- provides online accessibility and comprehensive search facilities, using audit trails and policy-based security to reduce risk; and
- manages the governance and approval processes for document and records management.

The DRMS interacts with the other TGMS application components through the Integration Platform:

- new documents, received or created by TGMS business processes, are forwarded to the DRMS from other TGMS application components using the Integration Platform. The DRMS categorizes, indexes and stores new documents based on their accompanying metadata, and applies the appropriate document management rules;
- queries for access to repository documents are received by individuals and other TGMS application components, and the corresponding documents are forwarded by the DRMS to the requesting individual or TGMS application component

*Collaboration Toolset*

The Collaboration Toolset is the application component that enables TGMS users to use a secure channel for sharing information, managing knowledge, jointly resolving operational issues and conducting ongoing communications. The capabilities and potential of collaborative toolsets are steadily growing, however at the minimum this application component includes:



- Virtual Conferencing – which enables TGMS business processes that depend on meetings between participants who are geographically dispersed (e.g., meetings of researchers or reviewers from across Canada, external international reviewers);
- Wikis – which enable the TGMS community to create communities of practice, collaboratively manage business-process related knowledge, tips, techniques, write documents collaboratively, as well as publish guidelines for applicants and reviewers. The TGMS wiki environment is intended to provide forums to:
  - support Tri-agencies internal resources in:
    - the best practices of conducting TGMS business processes and using TGMS resources to best advantage;
    - exploring methods of optimizing service to such external stakeholders as partner organizations, researchers, research administrators; and

- support external resources in:
  - more effectively and efficiently responding to the demands of the Tri-agencies; and
  - exploring methods of optimizing the interaction and processes between the Tri-agencies and researchers and research administrators; and
- Support tools such as co-browsing and proxy access tools which allow support analysts to remediate a user's problem by interacting with users in real-time, receiving user permission to view the users' screen, and temporarily controlling the user's screens remotely.

The Collaboration Toolset application components are integrated with the other TGMS application components through the Integration Platform, which provides other TGMS application components with access to collaboration tools.

### *Learning Management System*

The Learning Management System (LMS) is the application component through which TGMS-related learning is defined, planned, delivered and tracked. Additionally, the LMS provides TGMS with information regarding the completed TGMS training and TGMS qualifications of resources upon whom TGMS relies (e.g., reviewers, research administrators, as well as internal Tri-agencies' staff).



The LMS application component provides TGMS with the functionality for:

- defining learning requirements, creating and modifying training programs, courses (also known as learning events), and learning materials for one or more learning audiences (e.g., for applicants, reviewers, committee members, student liaison officers, research administrators);
- defining training calendars, scheduling delivery of training across all training modes (e.g., online, in-class, individual instruction, self-instruction);
- assigning instructors and other training resources to scheduled courses;
- defining training catalog rules that define course pre-requisites, learning equivalents, and program and course accreditations;
- delivering online training, and enabling or supporting self-instruction and individual instruction;
- supporting electronic distribution of learning materials, including information on training program and course requirements, learning events, and such resources as course material for specific learning events;
- monitoring the delivery of training events, as well as tracking the individual completion of people's learning activities;
- managing the governance and approval processes for the learning management processes.

The LMS interacts with the other TGMS application components through the Integration Platform. LMS information is forwarded to the Integration Platform for interfacing with other TGMS application components. Similarly, the Integration Platform provides the LMS with user-required information from the other TGMS applications and legacy applications (such as legacy software that tracks learning events).

## Mapping of Vendor Application Components to the Architecture

As part of the TGMS Discovery Phase, the project team conducted a series of discussions with vendors, to determine the degree to which their solutions could comply with a preliminary version of the TGMS Conceptual Application Architecture.

An initial mapping was performed by the vendors, as part of the Proof of Concept (POC) exercise and shared with the TGMS project. The next phase of the procurement was the Requirements Confirmation Request (RCR), which focused on the selection of the Cloud Service Provider and their solution. The bidding vendors proposed a high-level mapping of their solution's application components with the TGMS Conceptual Application Architecture components. Multiple responses were received, and Microsoft was selected as the winning bidder.

The following table represents a preliminary, informal mapping of Microsoft’s solution, to the TGMS Conceptual Application Architecture.

<i>TGMS Application Component</i>	<i>Microsoft Cloud Solution Component</i>
<i>TGMS Portal</i>	Power Platform: Power Apps Portals
<i>Grants Management System</i>	Power Platform: Configure & Extend
<i>CRM/Case Management</i>	Dynamics 365: Customer Service, and Marketing
<i>Reporting, Analytics &amp; Performance Management System</i>	Power Platform: Power BI
<i>Integration Platform</i>	Power Platform
<i>Identity Management System</i>	Microsoft Azure
<i>Workflow Management System</i>	Power Automate
<i>Business Rules Management System</i>	Power Automate
<i>Collaboration Toolset</i>	Microsoft 365 - Teams, Outlook, and SharePoint
<i>Learning Management System</i>	Microsoft 365: Viva Learning

Tableau 1 – Preliminary mapping of Microsoft’s solution, to the TGMS Conceptual Application Architecture

Figure 2 presents a graphic view of the architectural mapping presented in the table above.



Figure 2 - Mapping of vendors' solutions, to the TGMS Conceptual Application Architecture

The following provides a brief description of the capabilities of each vendor component presented above.

**Omnichannel:** Omnichannel for Customer Service is an application that extends Dynamics 365 Customer Service to enable the agencies to instantly connect and engage with their stakeholders via channels like Live Chat, voice, and SMS.

**Power Apps Portals:** Microsoft Power Apps provides a rapid low code development environment for building custom apps for business needs. It has services, connectors, and a scalable data service and app platform (Microsoft Dataverse) to allow simple integration and interaction with existing data. Power Apps enables the creation of web and mobile applications that run on all devices.

Power Apps Portals, which is part of the Microsoft Power Platform, is an application to create low-code, responsive, personalized websites. It can easily match websites to the look and feel of TGMS branding with customizable portal templates and responsive themes. Power Apps Portals creates and manages the content external users and partners can access using an intuitive interface and step-by-step guidance with no code required. It empowers anyone—either inside or outside the agencies—to interact with Microsoft Dataverse data using portals.

**Dynamics 365 Customer Service:** Dynamics 365 Customer Service is a customer relationship management application, which serves as a backbone for enhancing user experience and provide frictionless access to agencies resources. This is achieved by streamlining case and knowledge management, enabling personalized customer service with a 360-degree customer view, and providing visibility into customer service department performance with dashboards and reports.

[Dynamics 365 Marketing](#): Dynamics 365 Marketing is a customer relationship management software package, which engages users through campaigns, no matter how complex the targeting criteria. It delivers a seamless experience across digital and physical channels, and creates email content easily and efficiently with the AI-powered email editor.

[Dynamics 365 Sales](#): Microsoft Dynamics 365 Sales is a customer relationship management software package, which accelerates and supports stakeholder management. It improves client calls through feedback by getting in-the-moment insights about user emotion, sentiment, and priorities in phone calls.

[Dataverse](#): Microsoft Dataverse is a cloud-based storage space that organizations use to store business data securely. Power Apps and Microsoft Dynamics 365 applications, including Sales and Customer Service modules, sit on Dataverse and use this to store their data. By enabling apps to be built directly against this data, Dataverse avoids third-party integration to unify data and maintain a single source of truth across each workflow. Previously called the Common Data Service, Dataverse allows structured and unstructured data to be integrated from multiple sources into a single store used in Dynamics 365 and other model-driven apps.

[Power BI](#): Power BI (Business Intelligence) is a business analytics service that delivers insights for analyzing data. It can share those insights through data visualizations which make up reports and dashboards to enable fast, informed decisions. Power BI would scale across the three agencies, and it has built-in governance and security allowing the agencies to focus on using data more than managing it. Power BI can be considered as the analysis and insights leg of Microsoft Power Platform. It takes business data and displays it in ways that makes the most sense to users.

[Power Automate](#): Microsoft Power Automate is a software for automation of recurring tasks. Power Automate uses low-code, drag-and-drop tools and hundreds of pre-built connectors that automate repetitive, mundane tasks such as communication, data collections, and decision approvals. With the assistance of [Process Advisor](#), which allows the recording and visualizing of end-to-end processes, Power Automate will boost efficiency by providing guided recommendations for creating flows and deep insights of what to automate. Automation will be even smarter with the help of [AI Builder](#) allowing users to quickly process forms using document automation, process approvals, detect images and text, or create with prebuilt models.

[Microsoft 365](#): Microsoft 365, formerly Office 365, is a line of subscription services which adds to and includes the Microsoft Office product line. Microsoft 365 includes tools to help secure the three agencies from targeted cyberattacks and empower IT security teams to be more impactful. It also coordinates with stakeholders across departments in a shared workspace. These tools include:

- [Teams](#) - Microsoft Teams is a proprietary business communication platform. It virtually connects one on one, leads a team training, or hosts an interactive webinar for up to 1,000 attendees.
- [Viva Learning](#) – Viva Learning is a centralized learning hub in Microsoft Teams that lets you seamlessly integrate learning and building skills. It allows users to discover training resources and track learning progress.
- [Outlook](#) - Microsoft Outlook is a personal information manager software system, available as a part of the Microsoft Office suite. Though primarily an email client, Outlook also includes such functions as calendaring, task managing, contact managing, note-taking, journal logging and web browsing.
- [SharePoint](#) - SharePoint is a web-based collaborative platform that integrates with Microsoft Office. SharePoint is primarily a document management and storage system, but the product is highly configurable and its usage varies substantially among organizations. It shares files, data, news, and resources.

[Microsoft Azure](#): Microsoft Azure is a cloud computing service for application management via Microsoft-managed data centers. Microsoft Azure implements remote government access, empower cross-agency collaboration, and deliver secure services. It helps protect business assets and data against evolving threats with built-in multi-layered security and intelligent threat protection. Azure provides data centers in more global regions and is the largest compliance portfolio of any cloud provider.



# Internal Agency Journey Maps

Internal Agency Administrator (Pre-Application & Submission)

Internal Agency Administrator (Grant / Award Allocation & Post-administration)

Internal Agency Analyst

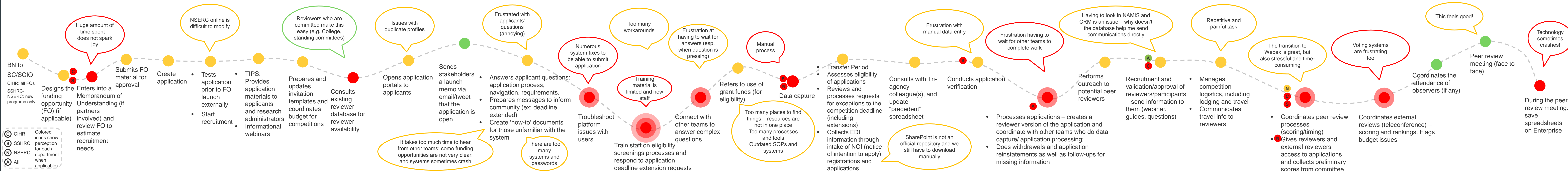
Pre-application

Submission and peer review process

JOURNEY

PEOPLE

TOUCH POINTS



KEY:  
CUSTOMER EXPERIENCE:  
Positive Neutral Negative



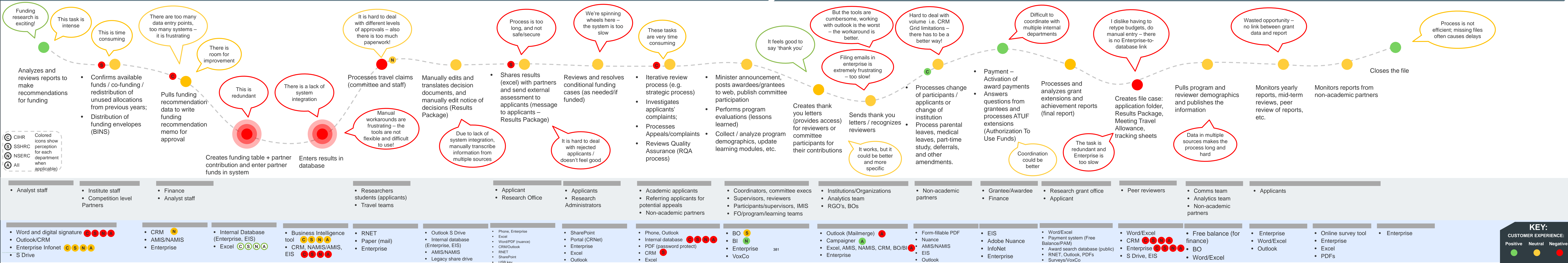
Grant / Award Allocation

Post-administration

JOURNEY

PEOPLE

TOUCH POINTS





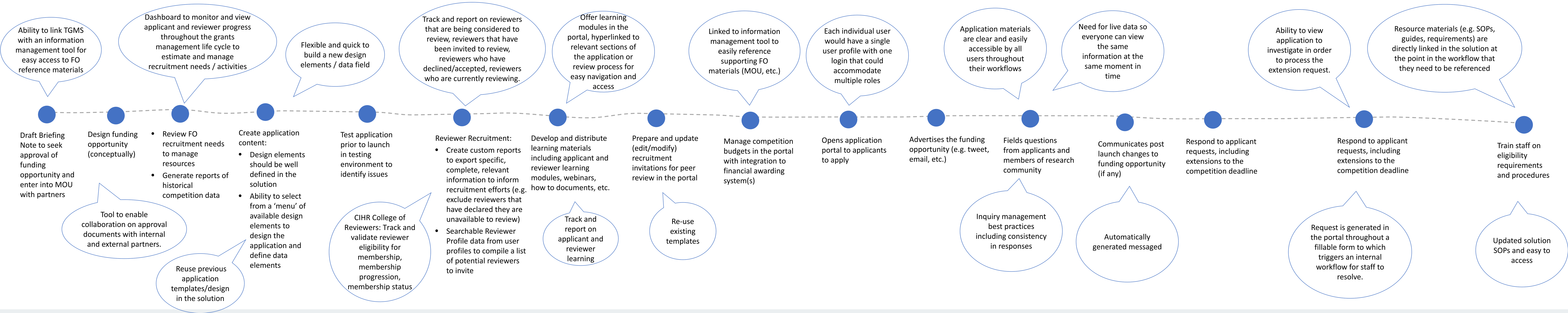
# Future State Journey

## Pre-application

JOURNEY

PEOPLE

TOUCH POINTS



Funding partners Executive management Agency Analysts Tri-Agency staff	Applicant Applicant partners Reviewers Research administrators Tri-Agency staff including Agency analysts Funding partners
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Outlook CRM Information Management tool	TGMS Portal	TGMS Portal Testing Environment	Outlook Google Docs TGMS Portal	TGMS Portal
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# Future State Journey

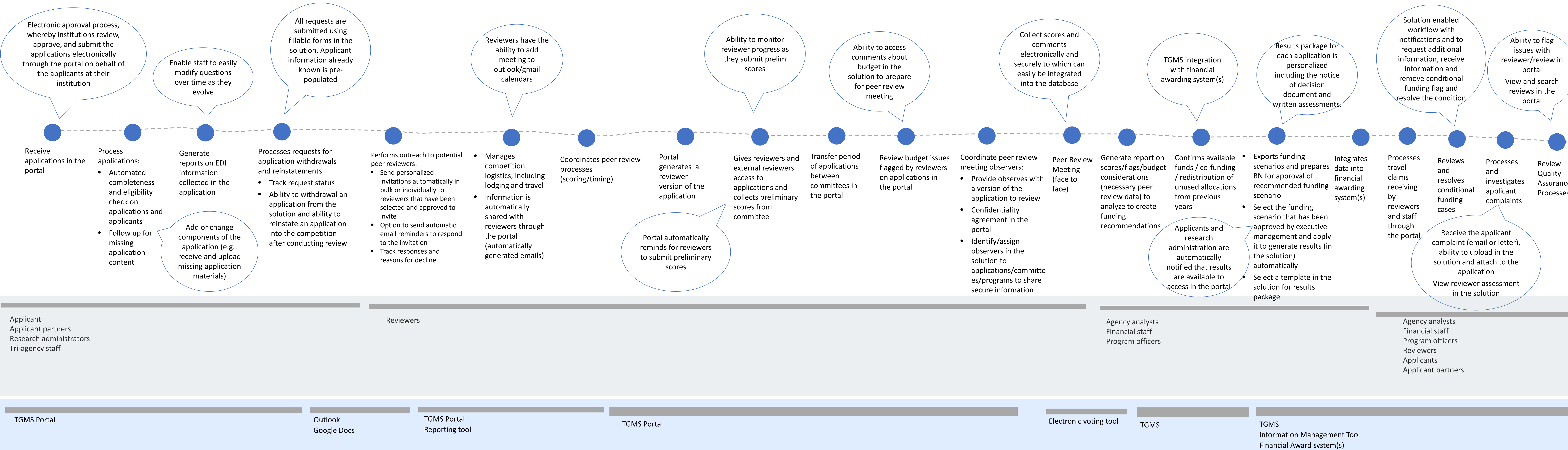
## Submission and Peer Review

## Grant & Award Allocation

JOURNEY

PEOPLE

TOUCH POINTS

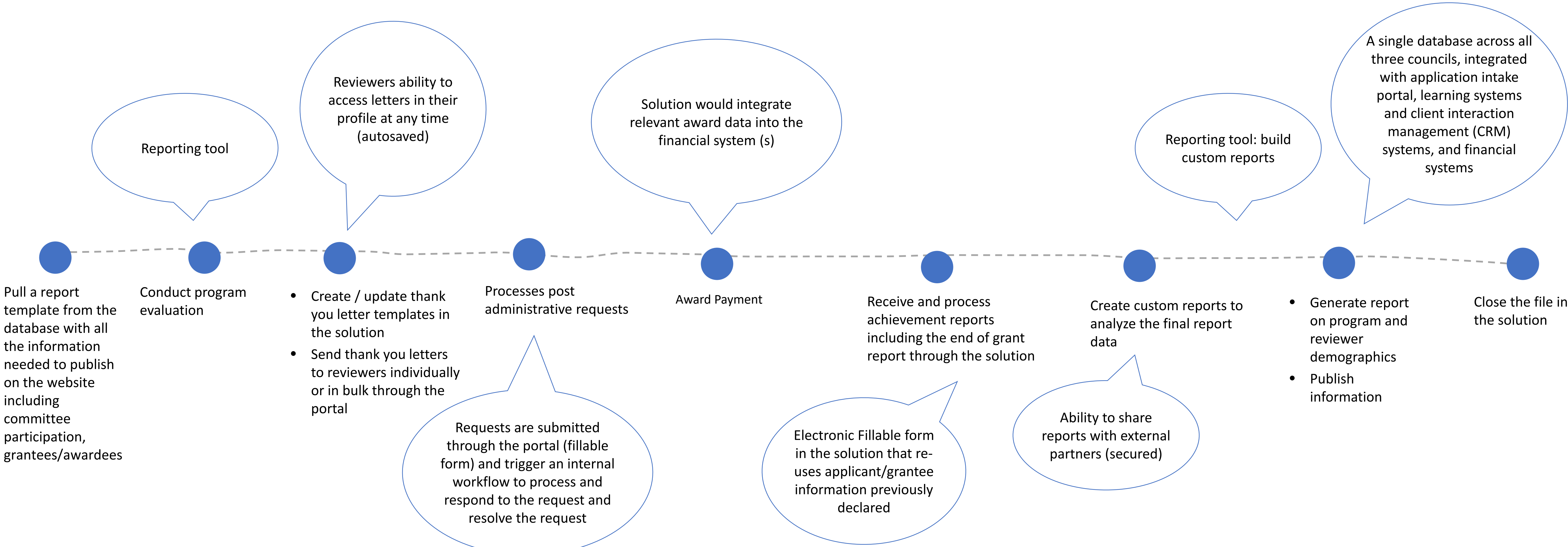




# Future State Journey

## Post Award Administration

JOURNEY



PEOPLE

Communications Translation

Agency analysts

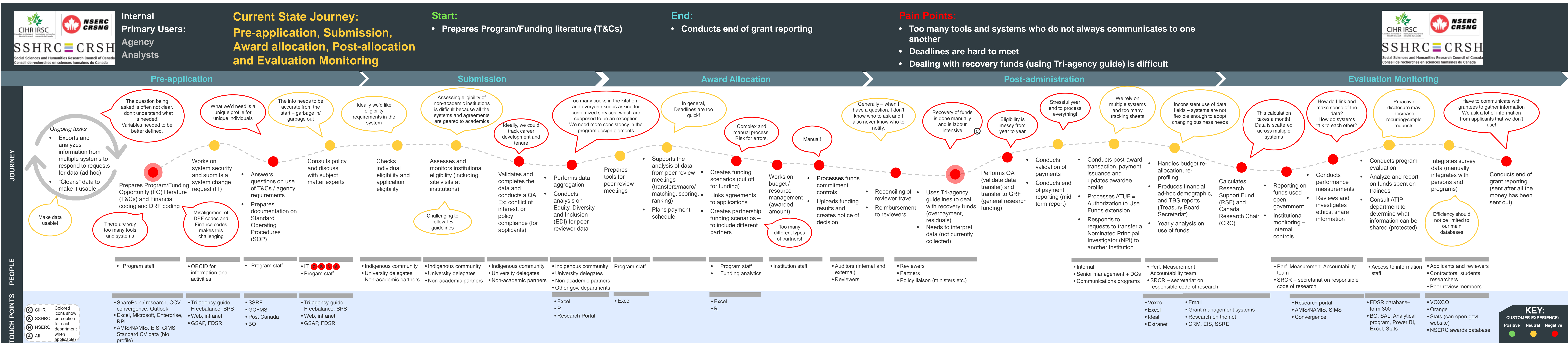
Reviewers

Grantees / Awardees  
Applicants  
Research administrators

TOUCH POINTS

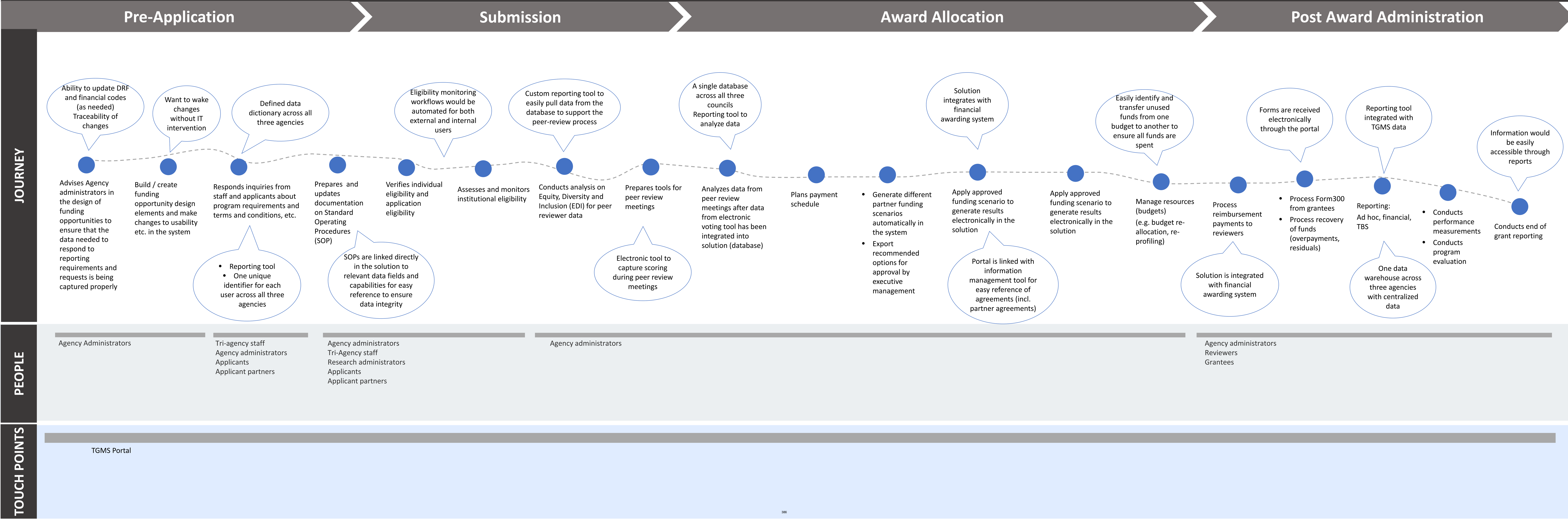
TGMS Portal







# Future State Journey



# External Journey Maps

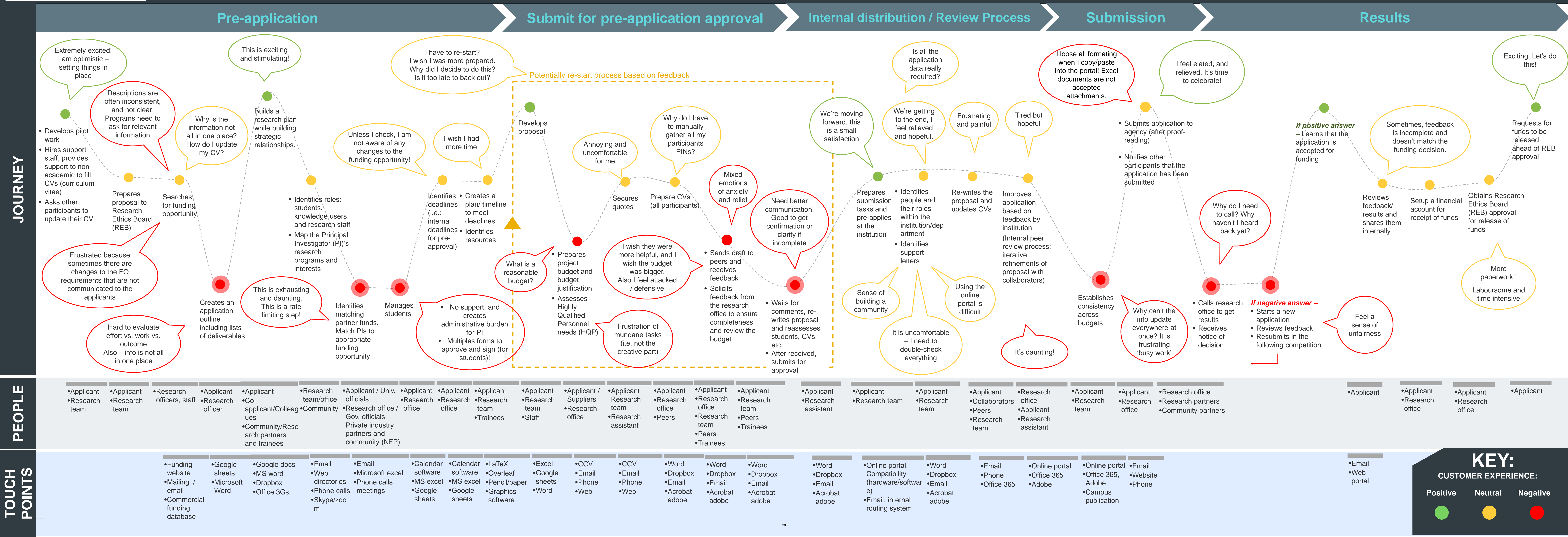
Applicant 1: Complex application that requires a lot of collaborative work; applicant has access to support.

Applicant 2: Simple application that requires less collaborative work and less support.

Reviewer

Research administrator





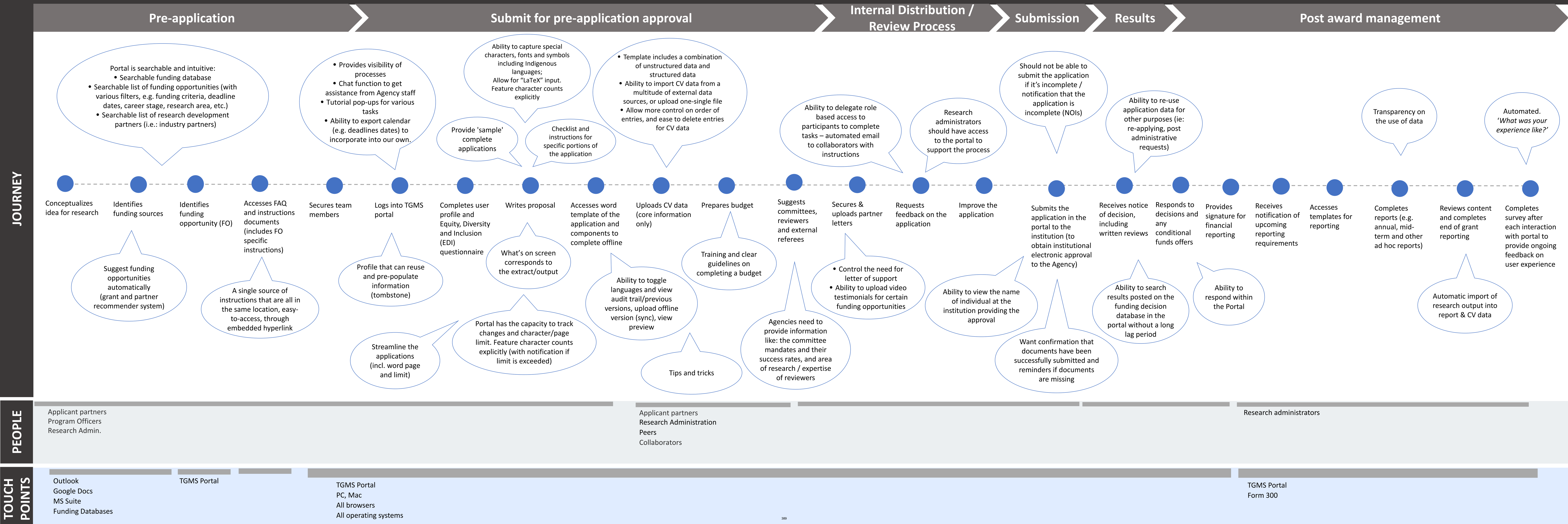


External Primary Users:

Applicant 1

Future State Journey

- Key principles:
- One single portal for all three agencies, with one username and one password
  - One unique identifier (across the agencies) for each user
  - Bilingual portal that is accessible and compatible with PC/MAC, multiple browsers and mobile devices
  - Ability of importing/exporting data
  - Ability to reuse and pre-populate data, including CV data and previous applications
- More aggregated CV data
  - Ability to delegate and revoke tasks and/or access (at the user's discretion)
  - Automated notifications and reminders
  - Auto-Save function
  - Integrated templates, workflows and dashboards
  - Default settings management according to best practices









External Primary Users:

Applicant 2

Future State Journey

Key principles:

- One single portal for all three agencies, with one username and one password
- One unique identifier (across the agencies) for each user
- Bilingual portal that is accessible
- Compatible with PC/Mac, multiple browsers and mobile devices
- Ability of importing/exporting data

- More aggregated CV data
- Ability to reuse and pre-populate data, including CV data and previous applications
- Ability to delegate & revoke tasks and/or access at the user’s discretion
- Automated notifications and reminders
- Auto-Save function
- Integrated templates, workflows and dashboards
- Default settings management according to best practices

JOURNEY

PEOPLE

TOUCH POINTS

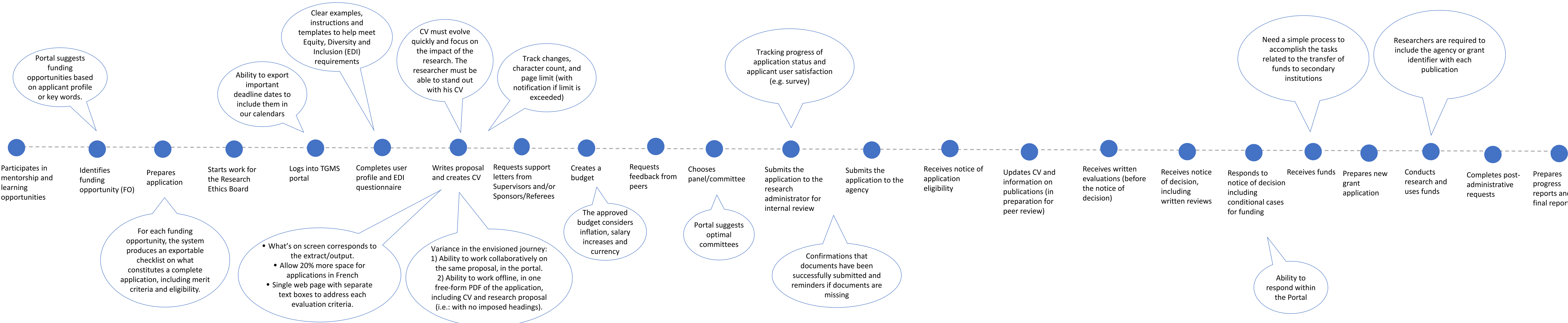
Pre-application

Submits for pre-application approval

Submission

Results / Award Allocation

Post-Administration Management (Evaluation & Monitoring)



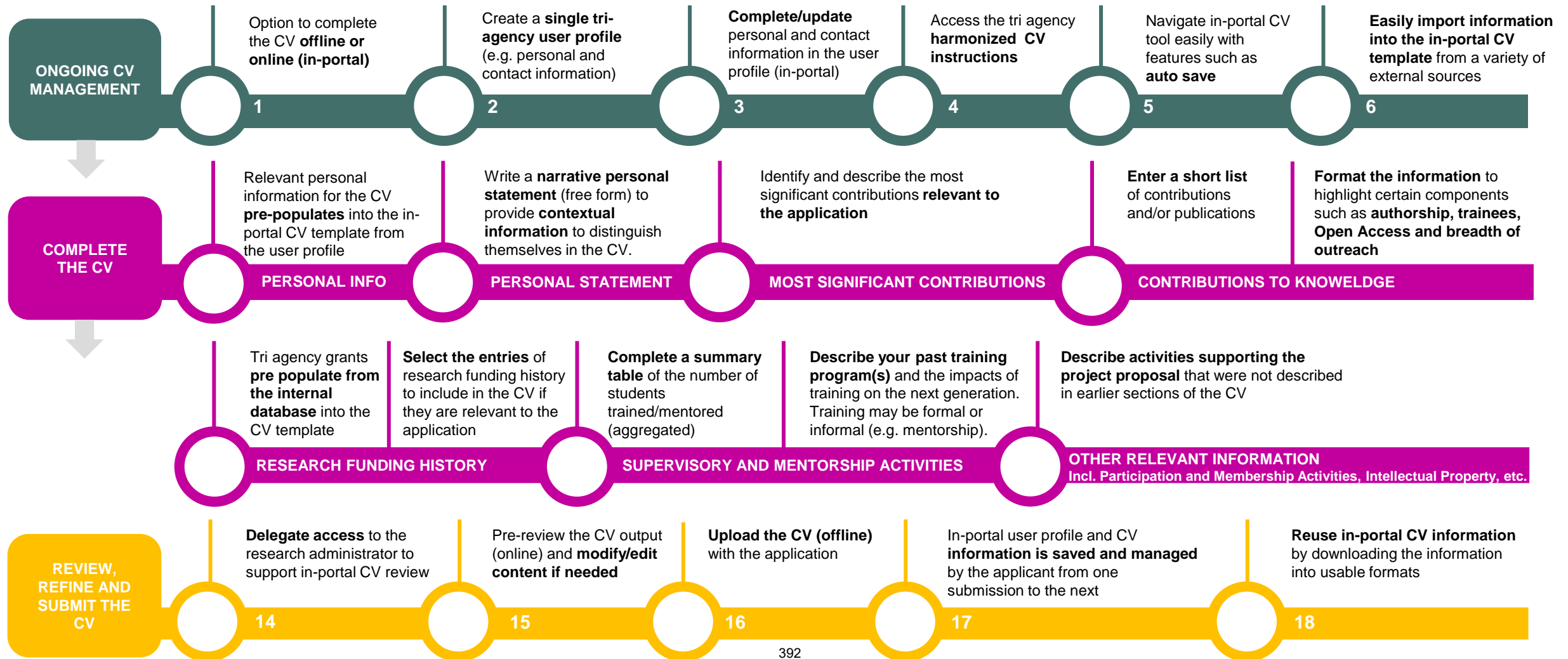
Research Administrators (for support and accessibility)  
Agency

Trainees  
Colleagues (Peers)  
Mentors  
Research Administrators

Research Ethics Board (REB)  
Compliance Officers  
Institution/Research Agency

TGMS Bilingual Portal

# Applicants – Desired CV management experience

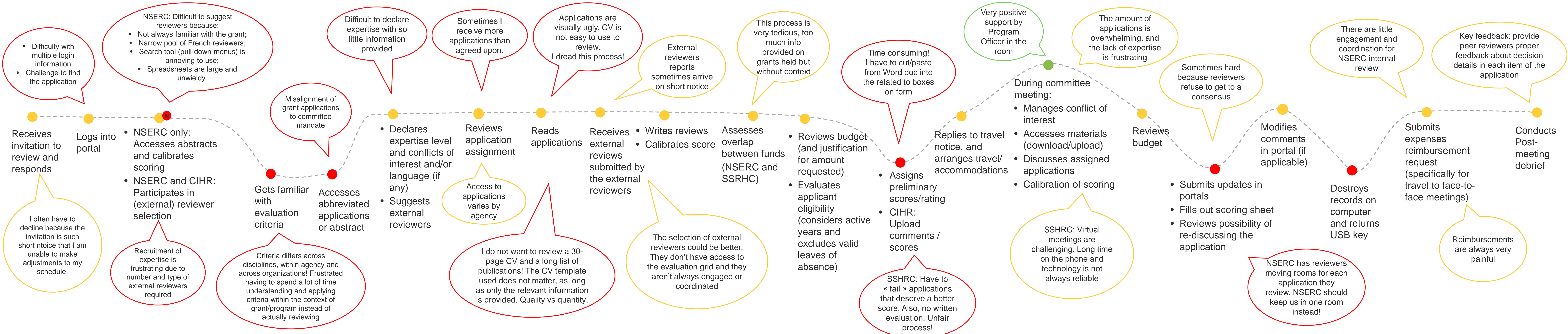




Pre-application

Peer Review

Post Peer Review



•Program Officer •Grants Office/Dean	•Program Officer •External reviewers	•Committee members	•Program Officers	•Vision (Travel)	•Committee members •Program staff	•Chairs, Agency Staff •Committee members	•Agency staff •Committee members	•Committee member	•Agency staff •Committee Chairs
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•Email (outlook, google mail)	•Agency website •Webex	•ResearchNet (Rnet) •CV •Extranet	•Excel uploaded to intranet •RNet (CIHR), Email (NSERC)	•RNet (CHIR) •PDF •Research portal •Extranet	•Intranet (SSHRC/ NSERC) •Research Portal	•Intranet (SSHRC/ INSERC) •Research Portal	•Word (SSHRC) •RNet (CIHR) •Email •Excel •Paper	•RNet (CIHR) Excel (SSHRC) •Email (to coordinate with SSHRC)	•Phone, email •Fillable PDF	•PDF (CHIR) •Excel (SSHRC) •Online portal (TBC – NSERC)	•Excel •PDF •Word •Paper	•Excel •PDF •Paper form	•RNet (CIHR)	•Excel	•Email •Paper form
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External Primary Users:

Reviewer

Future State Journey

Key principles:

- One single portal for all three agencies, with one username and one password
  - One unique identifier (across the agencies) for each user
  - Bilingual portal that is accessible
  - Compatibility with PC/Mac, multiple browsers and mobile devices
  - Ability of importing/exporting data
  - More aggregated CV data
- Ability to reuse and pre-populate data, including CV data and previous applications
  - Ability to delegate/revoke tasks and/or access (at the user's discretion)
  - Automated notifications and reminders
  - Auto-Save function
  - Integrated templates, workflows and dashboards
  - Default settings management according to best practices

JOURNEY

PEOPLE

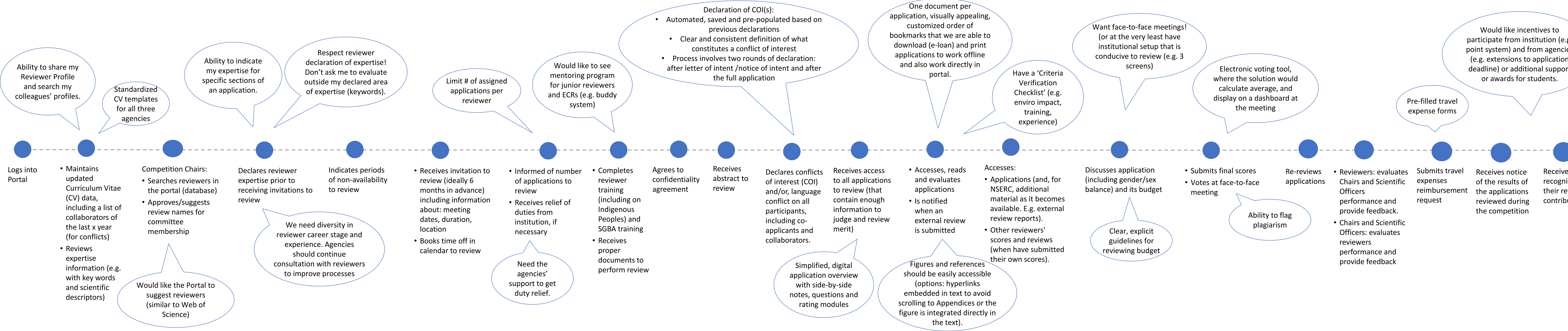
TOUCH POINTS

Profile Maintenance

Pre-Peer Review

Peer Review

Post Peer Review

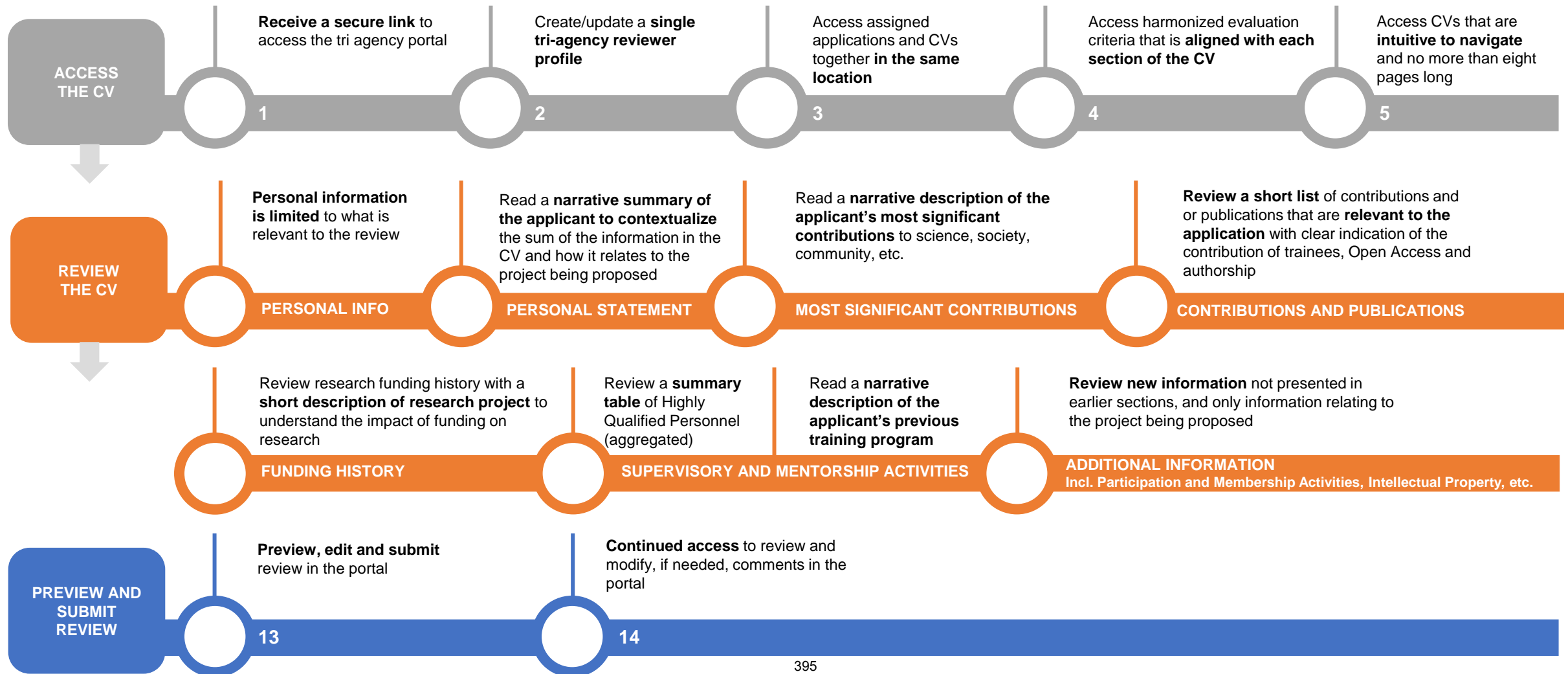


Committee Chair Program Staff at the Agency	Program staff at the Agency	Program staff at the Agency Reviewers	Program staff at the Agency VP/Dean/President Chairs, Scientific Officers and reviewers
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TGMS Portal, including Search functionality (for searching for reviewers) and Calendar to enter availability	Outlook (email) TGMS Portal, includes chat function for external reviewers to chat with internal committee members Dashboard with tasks and important dates Calendar	TGMS Portal Videoconferencing	TGMS Portal Email Travel Expense Forms
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# Reviewers – Desired CV management experience





## Awards Management





External Primary Users:  
Research Administrator

Future State Journey

Key principles:

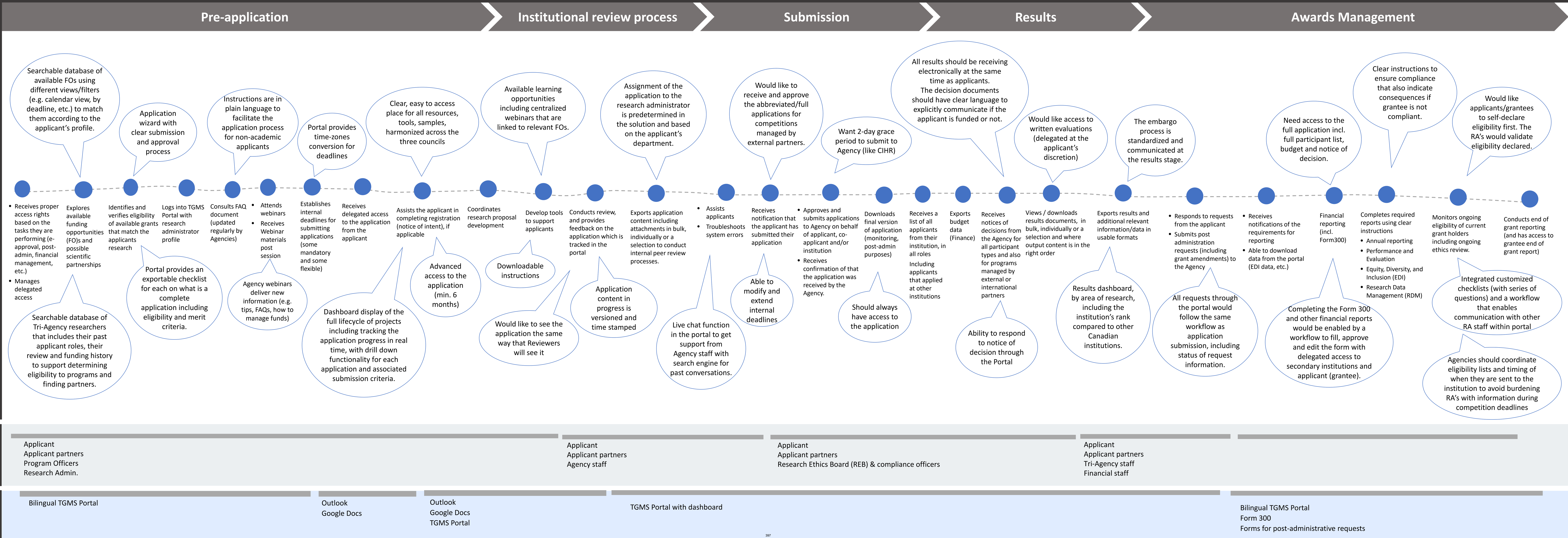
- One single portal for all three agencies, with one username and one password
- One unique identifier (across the agencies) for each user
- Bilingual portal that is accessible and compatible with PC/MAC, multiple browsers and mobile devices
- Ability of importing/exporting data
- More aggregated CV data

- Ability to reuse and pre-populate data, incl. CV data and previous applications
- Ability to delegate/remove access and tasks (at the user's discretion)
- Automated notifications and reminders
- Auto-Save function
- Integrated templates, workflows and dashboards
- Default settings management according to best practices

JOURNEY

PEOPLE

TOUCH POINTS





## **APPENDIX A TO ANNEX A**

### **TASKING ASSESSMENT PROCEDURE**

1. Where a requirement for a specific task is identified, a draft Task Authorization Form (TA Form) as attached at Appendix B to Annex A will be provided to the Contractor. Once a draft TA Form is received, the Contractor must submit to the Technical Authority a quotation of rates to supply the requested Resource Categories based on the information identified in the TA Form, as well as its corresponding proposed resource(s). The quotation must be signed and submitted to Canada within the time for response identified in the TA Form. The Contractor will be given a minimum of 2 working days (or any longer time period specified in the draft TA) turnaround time to submit a quotation.
  2. With each quotation the Contractor must propose the required number of resources and for each proposed resource the Contractor must supply a résumé, the requested security clearance information and must complete the Response Tables at Appendix C of Annex A applicable to the Resource Categories identified in the draft TA. The same individual must not be proposed for more than one Resource Category. The résumés must demonstrate that each proposed individual meets the qualification requirements described (including any educational requirements, work experience requirements, and professional designation or membership requirements). With respect to the proposed resources:
    - (i) Proposed resources may be employees of the Contractor or employees of a subcontractor, or these individuals may be independent contractors to whom the Contractor would subcontract a portion of the Work. (Refer to Appendix D to Annex A, Certifications).
    - (ii) For educational requirements for a particular degree, designation or certificate, Canada will only consider educational programmes that were successfully completed by the resource before the date the draft TA was first issued to the Contractor.
    - (iii) For requirements relating to professional designation or membership, the resource must have the required designation or membership by the time of draft TA issuance and must continue, where applicable, to be a member in good standing of the profession or membership throughout the assessment period and Contract Period. Where the designation or membership must be demonstrated through a certification, diploma or degree, such document must be current, valid and issued by the entity specified in this Contract or if the entity is not specified, the issuer must have been an accredited or otherwise recognized body, institution or entity at the time the document was issued.
    - (iv) For work experience, Canada will not consider experience gained as part of an educational programme, except for experience gained through a formal co-operative programme at a post-secondary institution.
    - (v) For any requirements that specify a particular time period (e.g., 2 years) of work experience, Canada will disregard any information about experience if the résumé does not include the relevant dates (month and year) for the experience claimed (i.e., the start date and end date). Canada will evaluate only the duration that the resource actually worked on a project or projects (from his or her start date to end date), instead of the overall start and end date of a project or a combination of projects in which a resource has participated.
    - (vi) A résumé must not simply indicate the title of the individual's position, but must demonstrate that the resource has the required work experience by explaining the responsibilities and work performed by the individual while in that position. Only listing experience without providing any supporting data to describe responsibilities, duties and relevance to the requirement, or reusing the same wording as the TA Form, will not be considered "demonstrated" for the purposes of the assessment. The Contractor should provide complete details as to where, when, month and year, and how, through which activities/responsibilities, the stated qualifications / experience were obtained. In
-

situations in which a proposed resource worked at the same time on more than one project, the duration of any overlapping time period will be counted only once toward any requirements that relate to the individual's length of experience.

3. The qualifications and experience of the proposed resources will be assessed against the requirements set out in Appendix C to Annex A to determine each proposed resource's compliance with the mandatory and rated criteria. Canada may request proof of successful completion of formal training, as well as reference information. Canada may conduct reference checks to verify the accuracy of the information provided. If reference checks are done, they will be conducted in writing by e-mail (unless the contact at the reference is only available by telephone). Canada will not assess any points or consider a mandatory criterion met unless the response is received within 5 working days. On the third working day after sending out the e-mails, if Canada has not received a response, Canada will notify the Contractor by e-mail, to allow the Contractor to contact its reference directly to ensure that it responds to Canada within 5 working days. Wherever information provided by a reference differs from the information supplied by the Contractor, the information supplied by the reference will be the information assessed. Points will not be allocated or a mandatory criteria considered as met if the reference customer is not a customer of the Contractor itself (for example, the customer cannot be the customer of an affiliate of the Contractor). Nor will points be allocated or a mandatory criteria considered as met if the customer is itself an affiliate or other entity that does not deal at arm's length with the Contractor. Crown references will be accepted.
4. During the assessment of the resources proposed, should the references for two or more resources required under that TA either be unavailable or fail to substantiate the required qualifications of the proposed resources to perform the required services, the Contractor's quotation may be found to be non-responsive.
5. Only quotations that meet all of the mandatory criteria will be considered for assessment of the point rated criteria. Each resource proposed must attain the required minimum score for the point rated criteria for the applicable Resource Category. If the minimum score for any proposed resource is less than what is required, the Contractor's quotation will be found to be non-responsive.
6. Once the quotation has been accepted by the Technical Authority, the TA Form will be signed by Canada and provided to the Contractor for signature. The TA Form must be appropriately signed by Canada prior to commencement of any work. The Contractor must not commence work until a validly issued TA Form (the Task Authorization) has been received, and any work performed in its absence is done at the Contractor's own risk.

Solicitation No. – N° de l'invitation  
A0156-162605/A

Amd. No – N° de la modif.

Buyer ID – Id de l'acheteur  
384ZM

Client Ref. No. – N° de réf. De client  
A0156-162605

File No. – N° du dossier  
384ZM. A0156-162605

CCC No./ N° CCC – FMS No/ N° VME

## APPENDIX B TO ANNEX A TASK AUTHORIZATION FORM

<b>TASK AUTHORIZATION (TA) FORM</b>				
<b>CONTRACTOR</b>		<b>CONTRACT NUMBER:</b>		
<b>COMMITMENT #</b>		<b>FINANCIAL CODING:</b>		
<b>TASK NUMBER</b>		<b>ISSUE DATE:</b>	<b>RESPONSE REQUIRED BY:</b>	
<b>1. STATEMENT OF WORK (WORK ACTIVITIES, CERTIFICATIONS AND DELIVERABLES)</b>				
SEE ATTACHED FOR STATEMENT OF WORK AND CERTIFICATIONS REQUIRED.				
<b>2. PERIOD OF SERVICES:</b>	<b>FROM (DATE):</b>		<b>To (DATE):</b>	
<b>3. WORK LOCATION:</b>				
<b>4. TRAVEL REQUIREMENTS:</b>				
<b>5. LANGUAGE REQUIREMENTS:</b>				
<b>6. OTHER</b>				
<b>7. LEVEL OF SECURITY</b>				
<b>CLEARANCE REQUIRED FOR THE</b>				
<b>8. CONTRACTOR'S RESPONSE:</b>				
<b>CATEGORY AND NAME OF PROPOSED</b>	<b>PWGSC SECURITY FILE NUMBER</b>	<b>PER DIEM RATE</b>	<b>ESTIMATED # OF DAYS</b>	<b>TOTAL COST</b>
	<b>ESTIMATED COST</b>			
	<b>GST/HST</b>			
	<b>TOTAL LABOUR COST</b>			
	<b>TOTAL TRAVEL &amp; LIVING COST</b>			
	<b>FIRM PRICE OR MAXIMUM TA PRICE</b>			

<b>Solicitation No. – N° de l'invitation</b> A0156-162605/A	<b>Amd. No – N° de la modif.</b>	<b>Buyer ID – Id de l'acheteur</b> 384ZM
<b>Client Ref. No. – N° de réf. De client</b> A0156-162605	<b>File No. – N° du dossier</b> 384ZM. A0156-162605	<b>CCC No./ N° CCC – FMS No/ N° VME</b>

<b>CONTRACTOR'S SIGNATURE</b>			
Name, Title and Signature of Individual Authorized to Sign on behalf of <b>Contractor</b> (type or print)		Signature: _____  Date: _____	
<b>TASK AUTHORIZATION (TA) FORM</b>			
<b>CONTRACTOR</b>		<b>CONTRACT NUMBER:</b>	
<b>COMMITMENT #</b>		<b>FINANCIAL CODING:</b>	
<b>TASK NUMBER</b>		<b>ISSUE DATE:</b>	<b>RESPONSE REQUIRED BY:</b>
<b>7. APPROVAL - SIGNING AUTHORITY</b>			
<b>Signatures (Client)</b>  Name, Title and Signature of Individual Authorized to sign:   Technical Authority: _____		<b>Signatures (PWGSC)</b>   Contracting Authority : _____	
You are requested to sell to her Majesty the Queen in Right of Canada, in accordance with the terms and conditions set out herein, referred to herein, or attached hereto, the services listed herein and in any attached sheets at the price set out there of.			

## APPENDIX C TO ANNEX A

To facilitate resource assessment, Contractors must prepare and submit a response to a draft Task Authorization using the tables provided in this Annex. When completing the resource grids, the specific information which demonstrates the requested criteria and reference to the page number of the résumé should be incorporated so that Canada can verify this information. The tables should not contain all the project information from the resume. Only the specific answer should be provided.

### 1.0 Mandatory Resource Assessment Criteria:

### 2.0 Point Rated Resource Assessment Criteria:

<p><b>Note to Bidders:</b> Attachment 4.1 – Mandatory Technical Criteria and Point-Rated Technical Criteria will be inserted and will form part of the resulting contract.</p>
--

## **APPENDIX D TO ANNEX A**

### **CERTIFICATIONS AT THE TA STAGE**

The following Certifications are to be used, as applicable. If they apply, they must be signed and attached to the Contractor's quotation when it is submitted to Canada.

#### **1. CERTIFICATION OF EDUCATION AND EXPERIENCE**

The Contractor certifies that all the information provided in the résumés and supporting material proposed for completing the subject work, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Contractor to be true and accurate. Furthermore, the Contractor warrants that every individual proposed by the Contractor for the requirement is capable of performing the Work described in the Task Authorization.

---

Print name of authorized individual & sign above

---

Date

#### **2. CERTIFICATION OF AVAILABILITY OF PERSONNEL**

The Contractor certifies that, should it be authorized to provide services under this Task Authorization, the persons proposed in the quotation will be available to commence performance of the work within a reasonable time from the date of issuance of the valid Task Authorization, or within the time specified in the TA Form, and will remain available to perform the work in relation to the fulfillment of the requirement.

---

Print name of authorized individual & sign above

---

Date

#### **3. CERTIFICATION OF STATUS OF PERSONNEL**

If the Contractor has proposed any individual who is not an employee of the Contractor, the Contractor certifies that it has permission from that individual to propose his/her services in relation to the Work to be performed under this TA and to submit his/her résumé to Canada. At any time during the Contract Period the Contractor must, upon request from the Contracting Authority, provide the written confirmation, signed by the individual, of the permission that was given to the Contractor of his/her availability. Failure to comply with the request may result in a default under the Contract in accordance with the General Conditions.

---

Print name of authorized individual & sign above

---

Date

#### **4. CERTIFICATION OF LANGUAGE - English**

The Contractor certifies that the proposed resource(s) in response to this draft Task Authorization is/are fluent in English. The individual(s) proposed must be able to communicate orally and in writing in English without any assistance and with minimal errors.

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\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Print name of authorized individual & sign above

Date



## ANNEX B Basis of Payment

TABLE 1 LICENSED SOFTWARE				
Item No.	Grants management templates or platform configuration accelerators Enterprise License	Perpetual Enterprise License Cost Year 1	Perpetual Enterprise License Cost Year 2	Perpetual Enterprise License Cost Year 3
	<b><u>FIRM PRICE OF PERPETUAL ENTERPRISE LICENSE:</u></b> This cost should cover a perpetual license for all out of the box functionalities as well as licenses for any additional software to assist with delivery.			
1		\$	\$	\$
2		\$	\$	\$
3		\$	\$	\$
4		\$	\$	\$
5		\$	\$	\$

TABLE 2 ANNUAL MAINTENANCE AND SOFTWARE SUPPORT			
Item No.	Optional Deliverables Description	Option Year 1	Option Year 2
1	Annual Maintenance and Software Support	\$	\$

**TABLE 3**  
**BUSINESS CAPABILITIES**

Item No.	Business capabilities	Definition	Delivery Cost
1	Bio-Profile	Access TGMS, complete a Bio-Profile containing personal information (e.g., name, date of birth, etc.) and professional information (e.g., field of study, affiliated institutions, etc.) and update this information as required.	\$
2	Arrange and Acquit	Design, implement, manage and close funding structure nodes	\$
3	Apply	Manage and submit one or multiple applications for various purposes (e.g., funding submission, appeals submission, continuing institutional eligibility submission, amendment of an award, etc.)	\$
4	Assess	Assess an application, including administrative assessments (eligibility and compliance), relevance and merit reviews, appeals, etc.	\$
5	Award	Examine the results of the assessment process and create funding recommendations and the associated agreements, and create awards for the successful applications	\$
6	Administration	Monitor awards and administering organizations, process amendments, process allegations, and manage the funds to recipients	\$
7	Audit & Evaluation	Perform and publish audits and evaluations of management practices and activities, perform corporate reporting, and provide proactive disclosure	\$
8	Analytics	Supports the creation and usage of advanced data queries to facilitate the advanced analysis of TGMS data	\$
9	Stakeholder Management	Encompasses Agency Administrators, Agency Analysts, Reviewers, Applicants interactions and self-service that support sharing and recording of information within and outside of the agencies	\$
10	Program Budget Management	Manage and allocate budgets across the Agencies' funding structures	\$
11	Common Services	Supporting capabilities that contribute to all other capabilities.	\$

**TABLE 4**  
**ROADMAP AND PLANNING DOCUMENT**

Item No.	Deliverables	Delivery Cost
1	<p><b>Solution implementation roadmap</b></p> <p>High level plan that enables the planning, design, configuration, testing, and development of any other materials required for the implementation of the Solution. The Solution implementation roadmap will be co-developed by the agencies and the contractor and updated as the product vision is refined.</p>	\$
2	<p><b>Deployment and operation plan</b></p> <p>Addresses all stages in the deployment of the Solution through the stages of the development lifecycle to deployment in a production context. This includes deployment of integrated and tested incremental releases from the testing environment through staging to operational production. This plan will also include details on involvement, knowledge sharing, and knowledge transfer with Agency staff to support empowerment of the Agencies to support future granting opportunities beyond the contract engagement. The Deployment and operation plan will be delivered by the contractor, with input from the agencies, prior to the commencement of development activities.</p>	\$
3	<p><b>Master test plan</b></p> <p>Plan that outlines an automation centric approach to unit, integration, and acceptance testing. This includes the creation of entrance and exit criteria for components to enter testing phase and exit as technically compliant. The Master test plan will be delivered by the contractor, with input from the agencies, prior to the commencement of development activities.</p>	\$
4	<p><b>Maintenance and support plan</b></p> <p>Plan that provides an understanding of the way the Contractor will deliver the required service levels for the Solution by describing scope, initiation, delivery of support services. The Maintenance and support plan will be delivered by the contractor, with input from the agencies, prior to the promotion of configurations into the production environment.</p>	\$

Initial Contract Period		
Resource Category	Level of Expertise	Firm Per Diem
Application Integration Architect	Level 3	\$
Application Technology / COTS Development Specialist	Level 3	\$
BI Programmer/Software	Level 3	\$
Test Coordinator	Level 3	\$
Tester	Level 3	\$
Database Modeler	Level 3	\$
Technology / Technical Architect	Level 3	\$
Project Coordinator	Level 3	\$
Project Leader	Level 3	\$
Project Manager	Level 3	\$
System Integration Project Manager	Level 3	\$
Project Executive	Level 3	\$
Quality Assurance	Level 3	\$
Enterprise Architect	Level 3	\$
Information Architect	Level 3	\$
Security Architect	Level 3	\$
Special Advisor	Level 3	\$
Business Transformation Architect	Level 1	\$
System Analyst	Level 1	\$
Web Architect	Level 1	\$

Option Period 1		
Resource Category	Level of Expertise	Firm Per Diem
Application Integration Architect	Level 3	\$
Application Technology / COTS Development Specialist	Level 3	\$

BI Programmer/Software	Level 3	\$
Test Coordinator	Level 3	\$
Tester	Level 3	\$
Database Modeler	Level 3	\$
Technology / Technical Architect	Level 3	\$
Project Coordinator	Level 3	\$
Project Leader	Level 3	\$
Project Manager	Level 3	\$
System Integration Project Manager	Level 3	\$
Project Executive	Level 3	\$
Quality Assurance	Level 3	\$
Enterprise Architect	Level 3	\$
Information Architect	Level 3	\$
Security Architect	Level 3	\$
Special Advisor	Level 3	\$
Business Transformation Architect	Level 1	\$
System Analyst	Level 1	\$
Web Architect	Level 1	\$

Option Period 2		
Resource Category	Level of Expertise	Firm Per Diem
Application Integration Architect	Level 3	\$
Application Technology / COTS Development Specialist	Level 3	\$
BI Programmer/Software	Level 3	\$
Test Coordinator	Level 3	\$
Tester	Level 3	\$
Database Modeler	Level 3	\$

Technology / Technical Architect	Level 3	\$
Project Coordinator	Level 3	\$
Project Leader	Level 3	\$
Project Manager	Level 3	\$
System Integration Project Manager	Level 3	\$
Project Executive	Level 3	\$
Quality Assurance	Level 3	\$
Enterprise Architect	Level 3	\$
Information Architect	Level 3	\$
Security Architect	Level 3	\$
Special Advisor	Level 3	\$
Business Transformation Architect	Level 1	\$
System Analyst	Level 1	\$
Web Architect	Level 1	\$

### Optional Solution Component – Learning Management Solution

Canada has identified a need for a Learning Management Solution to support the grants management and review process. This need, however, has not been included as a mandatory component of this procurement. Bidders are invited to propose, their pricing for the licensing and delivery for this component (if available). The following pricing will not be included in the financial calculations and will only be Optional Solution Component, exercised at the discretion of Canada. Bidders are not required to provide a price for the Optional Solution Component.

	Year 1	Year 2	Year 3	Total
Licensed product description	\$	\$	\$	\$

Business Capability	Definition	Delivery Cost
---------------------	------------	---------------

<b>Continuous Learning</b>	Creation, consumption, and monitoring of learning materials for stakeholders based on their role(s). Stakeholders include staff as well as applicants, reviewers, advisory committee members and others.	\$
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Contract Number / Numéro du contrat

Security Classification / Classification de sécurité

## SECURITY REQUIREMENTS CHECK LIST (SRCL)

## LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

## PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE

1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		2. Branch or Directorate / Direction générale ou Direction	
3. a) Subcontract Number / Numéro du contrat de sous-traitance		3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail			
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
6. Indicate the type of access required / Indiquer le type d'accès requis			
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
6. c) Is this a commercial courier or delivery requirement with <b>no</b> overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale <b>sans</b> entreposage de nuit?		<input type="checkbox"/> No Non <input type="checkbox"/> Yes Oui	
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès			
Canada <input type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>	
7. b) Release restrictions / Restrictions relatives à la diffusion			
No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>	
Not releasable À ne pas diffuser <input type="checkbox"/>			
Restricted to: / Limité à : <input type="checkbox"/>	Restricted to: / Limité à : <input type="checkbox"/>	Restricted to: / Limité à : <input type="checkbox"/>	
Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	Specify country(ies): / Préciser le(s) pays :	
7. c) Level of information / Niveau d'information			
PROTECTED A PROTÉGÉ A <input type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>	
PROTECTED B PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>	
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>	
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>	
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>	
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>	





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**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS? ☐ No / Non ☐ Yes / Oui  
If Yes, indicate the level of sensitivity:  
Dans l'affirmative, indiquer le niveau de sensibilité :
9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate? ☐ No / Non ☐ Yes / Oui
- Short Title(s) of material / Titre(s) abrégé(s) du matériel :  
Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis
- |   |   |   |  |
|---|---|---|--|
| <input type="checkbox"/> RELIABILITY STATUS<br>COTE DE FIABILITÉ    | <input type="checkbox"/> CONFIDENTIAL<br>CONFIDENTIEL           | <input type="checkbox"/> SECRET<br>SECRET           | <input type="checkbox"/> TOP SECRET<br>TRÈS SECRET               |
| <input type="checkbox"/> TOP SECRET- SIGINT<br>TRÈS SECRET – SIGINT | <input type="checkbox"/> NATO CONFIDENTIAL<br>NATO CONFIDENTIEL | <input type="checkbox"/> NATO SECRET<br>NATO SECRET | <input type="checkbox"/> COSMIC TOP SECRET<br>COSMIC TRÈS SECRET |
| <input type="checkbox"/> SITE ACCESS<br>ACCÈS AUX EMPLACEMENTS      |   |   |  |
- Special comments:  
Commentaires spéciaux : \_\_\_\_\_
- NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.  
REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail? ☐ No / Non ☐ Yes / Oui  
If Yes, will unscreened personnel be escorted?  
Dans l'affirmative, le personnel en question sera-t-il escorté? ☐ No / Non ☐ Yes / Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)****INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS**

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS? ☐ No / Non ☐ Yes / Oui
11. b) Will the supplier be required to safeguard COMSEC information or assets?  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC? ☐ No / Non ☐ Yes / Oui

**PRODUCTION**

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ? ☐ No / Non ☐ Yes / Oui

**INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)**

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS? ☐ No / Non ☐ Yes / Oui
11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale? ☐ No / Non ☐ Yes / Oui



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**PART C - (continued) / PARTIE C - (suite)**

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL  CONFIDENTIEL	SECRET	TOP SECRET  TRÈS SECRET	NATO RESTRICTED	NATO CONFIDENTIAL	NATO SECRET	COSMIC TOP SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL  CONFIDENTIEL	SECRET	TOP SECRET  TRES SECRET
							NATO DIFFUSION RESTREINTE	NATO CONFIDENTIEL		COSMIC COSMIC TRÈS SECRET	A	B	C			
Information / Assets Renseignements / Biens Production																
IT Media / Support TI																
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?  
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☐ No ☐ Yes  
Non Oui

**If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".**

**Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.**

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?  
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☐ No ☐ Yes  
Non Oui

**If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).**

**Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).**



Contract Number / Numéro du contrat

Security Classification / Classification de sécurité

**PART D - AUTHORIZATION / PARTIE D - AUTORISATION****13. Organization Project Authority / Chargé de projet de l'organisme**

Name (print) - Nom (en lettres moulées)		Title - Titre	Signature
Telephone No. - N° de téléphone	Facsimile No. - N° de télécopieur	E-mail address - Adresse courriel	Date

**14. Organization Security Authority / Responsable de la sécurité de l'organisme**

Name (print) - Nom (en lettres moulées)		Title - Titre	Signature
Telephone No. - N° de téléphone	Facsimile No. - N° de télécopieur	E-mail address - Adresse courriel	Date

**15. Are there additional instructions (e.g. Security Guide, Security Classification Guide) attached?**

Des instructions supplémentaires (p. ex. Guide de sécurité, Guide de classification de la sécurité) sont-elles jointes?

☒
No  
Non
☐
Yes  
Oui
**16. Procurement Officer / Agent d'approvisionnement**

Name (print) - Nom (en lettres moulées)		Title - Titre	Signature
Telephone No. - N° de téléphone	Facsimile No. - N° de télécopieur	E-mail address - Adresse courriel	Date

**17. Contracting Security Authority / Autorité contractante en matière de sécurité**

Name (print) - Nom (en lettres moulées)		Title - Titre	Signature
Telephone No. - N° de téléphone	Facsimile No. - N° de télécopieur	E-mail address - Adresse courriel	Date

**ATTACHMENT 3.1**  
**BID SUBMISSION FORM**

BID SUBMISSION FORM		
<b>Bidder's full legal name</b>		
<b>Bidder's Supply Arrangement Number</b>		
<b>Authorized Representative of Bidder for evaluation purposes (e.g., clarifications)</b>	Name	
	Title	
	Address	
	Telephone #	
	Fax #	
	Email	
<b>Company Security Officer (CSO) contact information:</b>	Name:	
	Title:	
	Address:	
	Telephone #:	
	Fax #:	
	Email:	
<b>Bidder's Procurement Business Number (PBN)</b> [see the Standard Instructions 2003]  <b>[Note to Bidders:</b> <i>Please ensure that the PBN you provide matches the legal name under which you have submitted your bid. If it does not, the Bidder will be determined based on the legal name provided, not based on the PBN, and the Bidder will be required to submit the PBN that matches the legal name of the Bidder.]</i>		
<b>Jurisdiction of Contract:</b> Province or territory in Canada the Bidder wishes to be the legal jurisdiction applicable to any resulting contract (if other than as specified in solicitation)		
<b>Former Public Servants</b>  See the Article in Part 2 of the bid solicitation entitled Former Public Servant for a definition of "Former Public Servant".	Is the Bidder a FPS in receipt of a pension as defined in the bid solicitation?  Yes ____ No ____  If yes, provide the information required by the Article in Part 2 entitled "Former Public Servant"	

	<p>Is the Bidder a FPS who received a lump sum payment under the terms of the Work Force Adjustment Directive?</p> <p>Yes _____ No _____</p> <p>If yes, provide the information required by the Article in Part 2 entitled "Former Public Servant"</p>
<p><b>Security Clearance Level of Bidder</b></p> <p>[include both the level and the date it was granted]</p> <p><b>[Note to Bidders: Please ensure that the security clearance matches the legal name of the Bidder. If it does not, the security clearance is not valid for the Bidder.]</b></p>	
<p>On behalf of the Bidder, by signing below, I confirm that I have read the entire bid solicitation including the documents incorporated by reference into the bid solicitation and I certify that:</p> <ol style="list-style-type: none"> <li>1. The Bidder considers itself and its proposed resources able to meet all the mandatory requirements described in the bid solicitation;</li> <li>2. This bid is valid for the period requested in the bid solicitation;</li> <li>3. All the information provided in the bid is complete, true and accurate; and</li> <li>4. If the Bidder is awarded a contract, it will accept all the terms and conditions set out in the resulting contract clauses included in the bid solicitation.</li> </ol>	
<b>Signature of Authorized Representative of Bidder</b>	

TECHNICAL EVALUATION CRITERIA

Mandatory Technical Evaluation Criteria

Mandatory ID	Requirement	Required to demonstrate compliance	(Met / Not Met), Cross Reference to Bidder's bid (page #)
M1	<p><b>Corporate Profile</b></p> <p>The Bidder must provide a corporate profile that includes detailed descriptions of its:</p> <p>1. Organisational structure, core business offerings, years in business, number of employees, and geographic presence.</p> <p>2. Corporate experience in delivering systems, solutions or customized services leveraging grants management related templates or accelerators on Microsoft Power Platform. This includes requirements elaboration, configuration and customization support, solution deployment, maintenance, and ongoing customer support.</p> <p>3. Corporate experience implementing and delivering software products, services and related components leveraging Microsoft Power Platform in a public or hybrid cloud environment.</p> <p>4. Corporate experience delivering managed services deployed on a cloud Microsoft Dynamics 365 and Microsoft Power Platform for public sector organizations.</p>	<p>The Bidder must demonstrate compliance by providing detailed information on each of the sub-requirements (1 through 4) identified in M1.</p> <p>The substantiation required for M1 cannot simply be a repetition of the mandatory requirement but must explain and demonstrate how the Bidder meets the requirement.</p> <p>M1 sub-requirement 2 must demonstrate at least 1 client actively engaged in a contract for Grants Management templates or accelerators in the public cloud space.</p> <p>Where Canada determines that the substantiation is not complete, the Bidder will be declared non-compliant. The substantiation may refer to additional documentation submitted with the Response, it is requested that Bidders indicate precisely where in the Response the reference material can be found, including the title of the document, and the page and paragraph numbers.</p>	

Mandatory ID	Requirement	Required to demonstrate compliance	(Met / Not Met), Cross Reference to Bidder's bid (page #)
M2	<p><b>Bidder Structure</b></p> <p>The Bidder must identify the proposed Bidder team structure, delivery team roles by identifying:</p> <ol style="list-style-type: none"> <li>1. The Bidder and any Affiliates* employed in the provision of the proposed TGMS.</li> <li>2. All providers of core grants management components including templates or accelerators required for the provision of the TGMS as proposed.</li> <li>3. All providers roles of professional services proposed by the Bidder to provide and deliver the proposed TGMS (e.g., subcontractors engaged by the Bidder for the purposes of solution configuration, integration, customization, or support services).</li> <li>4. A continuity strategy for proposed professional services roles which addresses individual or subcontractor resource departures, backfilling, and replacement.</li> </ol> <p>*Affiliates: A person, including, but not limited to, parent companies, subsidiaries, whether wholly or partially owned, as well as a senior officer.</p>	<p>The Bidder must demonstrate compliance by providing detailed information on each of the sub-requirements (1 through 4) identified in M2.</p> <p>The substantiation required for M2 cannot simply be a repetition of the mandatory requirement but must explain and demonstrate how the Bidder meets the requirement.</p> <p>Where Canada determines that the substantiation is not complete, the Bidder will be declared non-compliant. The substantiation may refer to additional documentation submitted with the Response, it is requested that Bidders indicate precisely where in the Response the reference material can be found, including the title of the document, and the page and paragraph numbers.</p>	
M3	<p><b>Software Publisher(s) Authorization(s)</b></p> <p>The Bidder must demonstrate that it is authorized to provide and deliver the proposed TGMS.</p>	<p>The Bidder must demonstrate compliance by providing the following:</p> <p>If the Bidder is the Software Publisher for any of the proprietary software products proposed, Canada requires that the Bidder confirms in writing that it is the Software Publisher. The Bidder is requested to use the Software Publisher Certification Form included with this RFP. Although all the contents of the Software Publisher Certification Form are required, using the form itself to provide this information is not mandatory. For Bidders who use an alternate form, it is in Canada's sole discretion to determine whether all the required information has been provided. Alterations to the statements in the form may result in the Response being declared non-responsive.</p> <p><b>Bidders should use Appendix A – Software Publisher Certification Form</b></p>	

Mandatory ID	Requirement	Required to demonstrate compliance	(Met / Not Met), Cross Reference to Bidder's bid (page #)
		<p>Or</p> <p>2. If the Bidder is not the Software Publisher of all the proprietary software products proposed, Canada requires that the Bidder submits proof of the Software Publisher's authorization, which must be signed by the Software Publisher (not the Bidder). No further consideration will be given to a Bidder who is not the Software Publisher for all of the proprietary software proposed, unless proof of this authorization has been provided to Canada. If the proprietary software proposed by the Bidder originates with multiple Software Publishers, authorization is required from each Software Publisher. The Bidder is requested to use the Software Publisher Authorization Form included with this RFP. Although all the contents of the Software Publisher Authorization Form are required, using the form itself to provide this information is not mandatory. For Bidders/Software Publishers who use an alternate form, it is in Canada's sole discretion to determine whether all the required information has been provided. Alterations to the statements in the form may result in the Response being declared non-responsive. <b>Bidders should use Appendix B – Software Publisher Authorization Form</b></p> <p><b>Notes:</b></p> <p>1. In this RFP, "Software Publisher" means the owner of the copyright in any software products proposed in the Response, who has the right to license (and authorize others to license/sub-license) its software products.</p> <p>2. Where the core software of the proposed TGMS consists of multiple products integrated to provide an integrated solution to meet this Tri-Agency requirement then the Bidder must be authorized to provide each such product by providing the required attestations for each product.</p>	



Mandatory ID	Requirement	Required to demonstrate compliance	(Met / Not Met), Cross Reference to Bidder's bid (page #)
M4	<p><b>Previous Microsoft Dynamics 365 and Microsoft Power Platform based GMS Deployment References</b></p> <p>The Bidder must provide minimum of two (2) customer references for Microsoft Dynamics 365 and Microsoft Power Platform solution implementations where the Bidder delivered the referenced solution or services demonstrating for each of the requirements listed below, that:</p> <ol style="list-style-type: none"> <li>1. The solution delivered to each of the referenced customers supported the delivery of a grants management solution leveraging the Microsoft Platform based templates or accelerators included in the current TGMS proposal.</li> <li>2. At least one of the referenced customer implementations must demonstrate experience in configuring and managing Microsoft Platform based templates or accelerators for a <b>public sector</b> organization (e.g., federal, provincial, regional, or municipal government organizations).</li> <li>3. Each of the referenced customer implementations have currently been in a full production environment for at least six (6) months and were delivered within the five (5) years prior to the closing date of this RFP; and</li> <li>4. At least one of the referenced customer implementations required customization or configuration of the Microsoft Platform based templates or accelerators to be carried out by the Bidder to implement the desired business outcomes of the project.</li> </ol> <p><b>Bidders must use the Previous Microsoft Dynamics 365 and Microsoft Power Platform GMS Deployment Reference Form at Section 2.0 c.</b></p>	<p>The Bidder must demonstrate compliance by providing detailed information on each of the sub-requirements (1 through 4) for each of the customer references provided.</p>	
M5	<p><b>Proposed Solution - Accessible Interface and Support</b></p>	<p>Bidders should demonstrate compliance by providing samples of materials in French and English that illustrate product multi-language support in an environment that demonstrates conformance with WCAG 2.1 AA guidelines.</p>	

Mandatory ID	Requirement	Required to demonstrate compliance	(Met / Not Met), Cross Reference to Bidder's bid (page #)
	<p>The solution must and supporting materials must support both of Canada's official languages (Canadian French and Canadian English).</p> <p>The Bidder should demonstrate how and at what level their core GMS solution conforms to World Wide Web Consortium (WC) WCAG 2.1 AA guidelines set out by GC's Standard on Web Accessibility.</p>	<p>Examples of supporting materials include but are not limited to screenshots of user sessions in both official languages (e.g., screenshot of English session, screenshot of French session), user documentation, training or other product materials demonstrating product use in both languages.</p> <p>If the solution is not bilingual as described above, the Bidder must provide a detailed roadmap demonstrating Canadian French and Canadian English support by 6 months post contract award.</p> <p>Similarly, if the environment does not currently conform to WCAG 2.1 AA guidelines, the Bidder must provide a detailed roadmap indicating the delays required to produce and deliver a compliant solution.</p>	

Point-rated Technical Evaluation Criteria

ID	Section	Points
R-1.1	Understanding of TGMS Project Requirements	5 pts
R-1.2	Bidder Solution Delivery Approach	10 pts
R-1.3	Proposed Solution - Solution Architecture	15 pts
R-1.4	Bidder Proposed Integration, including Identity Management, Architecture	10 pts
R-1.5	Bidder Product Delivery Roadmap	15 pts
R-1.6	Support and Sustain / Support Model	10 pts
R-1.7	Project Security – Security Policy	10 pts
R-2.1	Bio-Profile capabilities	15 pts
R-2.2	Arrange & Acquit capabilities	15 pts
R-2.3	Apply capabilities	15 pts
R-2.4	Assess capabilities	15 pts
R-2.5	Award capabilities	10 pts
R-2.6	Audit & Evaluation capabilities	15 pts
R-2.7	Analytics capabilities	10 pts
R-3.1a – 3.6a	Previous Microsoft Dynamics 365 and Microsoft Power Platform based GMS Deployment Reference A	15 pts
R-3.1b – 3.6b	Previous Microsoft Dynamics 365 and Microsoft Power Platform based GMS Deployment Reference B	15 pts
	Total	200 pts

Minimum pass mark for the point rated technical evaluation criteria: 70% (140 pts)

1.0 Solution Proposal Rated Criteria

Responses will be evaluated against the following point-rated technical criteria, using the evaluation factors and weighting indicators specified for each criterion. Responses not meeting the identified minimum weighted scores will be deemed non-compliant.

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder’s bid (page #)
R-1.1	<p><b><u>Understanding of TGMS Project Requirements</u></b></p> <p>The Bidder should demonstrate an understanding of the overall TGMS project requirements and deliverables as set out in Annex A – Statement of Work by describing concisely and in its own words:</p> <ol style="list-style-type: none"><li>1. The overall project objectives as set out in Annex A –Statement of Work.</li><li>2. The target Solution environment as expected by Canada and described in the Appendix J: TGMS Conceptual Application Architecture.</li><li>3. The overall implementation approach and project schedule.</li><li>4. The role of Canada in providing cloud infrastructure and services in support of the target environment.</li><li>5. The five top anticipated project risks foreseen by the bidder, and associated requirements for minimizing and tracking project risks in the proposed approach (including deployment), and management of residual risk.</li><li>6. The role of the bidder working alongside agency staff in a bilingual work environment</li></ol>	<p>Points will be awarded in the following manner:</p> <p><b>5 pts</b> = where the Bidder addresses all 6 elements and provides a comprehensive level of detail for each; the Bidder has tailored its response to the Solution and has identified its assumptions in creating its response.</p> <p><b>3 pts</b> = where the Bidder addresses 4 to 5 of the 6 elements and provides a comprehensive level of detail for each; the Bidder has tailored its response to the Solution and has identified its assumptions in creating its response.</p> <p><b>1 pts</b> = where the Bidder addresses 2 to 3 of the 6 elements and provides a comprehensive level of detail for each; the Bidder has tailored its response to the Solution and has identified its assumptions in creating its response.</p> <p><b>Note:</b> “Addresses the element” means that the Bidder has provided sufficient level of detail to demonstrate the element and indicates that they recognize that it is a requirement that needs to be addressed in the scope of the project and identified their assumptions in creating their response.</p>	
R-1.2	<p><b><u>Bidder Solution Delivery Approach</u></b></p> <p>The Bidder should indicate in its solution delivery approach that the Bidder is proposing to leverage an Agile framework (e.g., Scrum, Kanban, Lean, and any adaptations) to deliver the solution design effectively and efficiently, and shorten the duration of configuration, build, and test cycles.</p> <p>This includes a description of the way the Bidder intends to plan the progression through their chosen System Development Life Cycle (SDLC) and meet Canada’s</p>	<p>Points will be awarded in the following manner:</p> <p><b>10 pts</b> – The information provided clearly describes the proposed Agile framework and planned progression through the SDLC. This includes a clear demonstration that the mechanism(s) proposed will result in shortening of the end-to-end delivery cycles, meet Canada’s deployment targets, and adapt to the evolution of the business functionality over time.</p> <p><b>6 pts</b> – The information provided clearly describes the proposed Agile framework and planned progression through the SDLC but</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
	deployment targets, while adapting with the evolution of the business functionality over time. (e.g., Agile, DevOps, DevSecOps). Additionally, this includes the feedback mechanisms necessary to allow for client-centric enhancements to TGMS as well as to the Bidder's grants management templates and accelerators.	<p>does not include a clear demonstration that the mechanism(s) proposed will result in shortening of the end-to-end delivery cycles, meet Canada's deployment targets, and adapt to the evolution of the business functionality over time.</p> <p><b>2 pt</b> – The information provided partially describes the proposed Agile framework and planned progression through the SDLC.</p>	
<b>R-1.3</b>	<p><b><u>Proposed Solution – Solution Architecture</u></b></p> <p><u>The Bidder should include a matrix which maps the proposed Solution components to the TGMS Level 1 Business Capabilities (from SOW Appendix C: Functional Requirements):</u></p> <p>LEVEL 1 BUSINESS CAPABILITIES</p> <ol style="list-style-type: none"> <li>1 "BIO-PROFILE" BUSINESS CAPABILITY</li> <li>2 "ARRANGE AND ACQUIT" BUSINESS CAPABILITY</li> <li>3 "APPLY" BUSINESS CAPABILITY</li> <li>4 "ASSESS" BUSINESS CAPABILITY</li> <li>5 "AWARD" BUSINESS CAPABILITY</li> <li>6 "ADMINISTRATION" BUSINESS CAPABILITY</li> <li>7 "AUDIT AND EVALUATION" BUSINESS CAPABILITY</li> <li>8 "ANALYTICS" BUSINESS CAPABILITY</li> <li>9 "STAKEHOLDER MANAGEMENT" BUSINESS CAPABILITY</li> <li>10 "CONTINUOUS LEARNING" BUSINESS CAPABILITY</li> <li>11 "PROGRAM BUDGET MANAGEMENT" BUSINESS CAPABILITY</li> <li>12 "COMMON SERVICES" BUSINESS CAPABILITIES</li> </ol>	<p>Points will be awarded in the following manner:</p> <p><b>15 pts</b> – The component diagrams, descriptions, and the matrix provided clearly identify and maps the proposed solution's components to all 12 <u>TGMS Level 1 Business Capabilities</u> of Appendix C: Functional Requirements and maps the Bidder solution to Appendix J: TGMS Conceptual Application Architecture.</p> <p><b>12 pts</b> – The component diagrams, descriptions, and the matrix provided clearly identify and maps the proposed solution's components to the less than 12 but more than 10 <u>TGMS Level 1 Business Capabilities</u> of Appendix C: Functional Requirements and maps the Bidder solution to Appendix J: TGMS Conceptual Application Architecture and clearly demonstrate how the Business Capabilities missing from their existing components will be developed to minimize impact on the delivery of the TGMS.</p> <p><b>8 pts</b> – The component diagrams, descriptions, and the matrix provided clearly identify and maps the proposed solution's components to the less than 10 but more than 8 <u>TGMS Level 1 Business Capabilities</u> of Appendix C: Functional Requirements and maps the Bidder solution to the Appendix J: TGMS Conceptual Application Architecture and clearly demonstrate how the Business Capabilities missing from their existing components will be developed to minimize impact on the delivery of the TGMS.</p> <p><b>4 pts</b> – The component diagrams, descriptions, and the matrix provided clearly identify and maps the proposed solution's components to the less than 8 but more than 5 <u>TGMS Level 1 Business Capabilities</u> of Appendix C: Functional Requirements and maps the Bidder solution to the Appendix J: TGMS Conceptual</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
		<p>Application Architecture and clearly demonstrate how the Business Capabilities missing from their existing components will be developed to minimize impact on the delivery of the TGMS.</p> <p><b>2 pts</b> – The component diagrams, descriptions, and the matrix provided clearly identify and maps the proposed solution's components to the less than 5 but more than 2 <u>TGMS Level 1 Business Capabilities</u> of Appendix C: Functional Requirements and maps the Bidder solution to Appendix J: TGMS Conceptual Application Architecture and clearly demonstrate how the Business Capabilities missing from their existing components will be developed to minimize impact on the delivery of the TGMS.</p> <p><b>0 pts</b> – The component diagrams, descriptions, and the matrix provided identify the proposed solution's components to the less than 2 <u>TGMS Level 1 Business Capabilities</u> of Appendix C: Functional Requirements and maps the Bidder solution to Appendix J: TGMS Conceptual Application Architecture. OR there is no clear demonstration how the Business Capabilities missing from their existing components will be developed to minimize impact on the delivery of the TGMS. OR The information provided does not, or insufficiently, meet the requirement.</p>	
<b>R-1.4</b>	<p><b>Bidder Proposed Integration, including Identity Management, Architecture</b></p> <ol style="list-style-type: none"> <li>1. The Bidder should demonstrate examples of internal Microsoft Active Directory identity management and integrations between the proposed Solution and third-party identity management tools (such as GCKey, MyKey, Verified.me) as part of a public sector secure environment.</li> <li>2. The Bidder should demonstrate examples of the solution leveraging secure API integration with external data sources, such as ORCID or DOI, as well as two-way integration with external SQL and SAP based systems.</li> </ol>	<p>Points will be awarded in the following manner:</p> <p><b>10 pts</b> = Examples are provided which fully meet the integration requirements listed.</p> <p><b>6 pts</b> = Examples are provided which fully meet the integration scenarios listed, but do not demonstrate usage within a public sector context.</p> <p><b>2 pts</b> = Examples are provided which fully support one but not both of the two listed elements for this criterion.</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
R-1.5	<p><b><u>Bidder Product Delivery Roadmap</u></b></p> <p>The Product Delivery Roadmap should identify:</p> <ol style="list-style-type: none"> <li>1. The deliverables, activities, milestones and corresponding level of effort associated with providing the deliverables and outcomes as set out in SOW Section 3: Project Outcomes, Approach, and Deliverables.</li> <li>2. Its strategy to deliver the TGMS solution as contemplated in the SOW Section 5: Solution Requirements.</li> <li>3. Its strategy to migrate existing Services and data, as outlined in SOW Section 4.5.4 Services Architecture, from legacy methods to the TGMS while minimizing the disruption to stakeholders.</li> <li>4. Its strategy and approach to effectively deliver the TGMS solution leveraging existing templates or accelerators.</li> <li>5. Its strategy and approach to effectively deliver the TGMS solution within the scope of the initial 3-year engagement.</li> </ol> <p>In addition, the bidder provides a projected roadmap outlining upcoming releases, feature enhancements, and related new components to their grants management accelerators and templates over the next three years. This roadmap must demonstrate, as well, how projected enhancements and innovations to the Microsoft Power Platform will be leveraged by the proposed solution where appropriate.</p>	<p>Points will be awarded in the following manner:</p> <p><b>15 pts</b> - The bidder demonstrates all 5 requirements of the product delivery roadmap as well as provides projected three-year roadmap of upcoming enhancements to their grants management solution suite.</p> <p><b>12 pts</b> – The bidder demonstrates all 5 requirements of the product delivery roadmap.</p> <p><b>8 pts</b> – The bidder demonstrates 4 of the 5 requirements of the product delivery roadmap.</p> <p><b>4 pt</b> – The bidder demonstrates 3 of the 5 requirements of the product delivery roadmap.</p> <p><b>0 pts</b> – The bidder demonstrates less than 3 of the 5 requirements of the product delivery roadmap.</p>	
R-1.6	<p><b><u>Support and Sustain / Support Model</u></b></p> <p>The Bidder should describe how incidents and service requests impacting the proposed Solution will be resolved efficiently and effectively, including:</p> <ol style="list-style-type: none"> <li>1. Potential integration points and responsibilities for Canada and contractor service desks during incident identification and resolution.</li> <li>2. Recommended escalation management process detailing the various levels of support and who would own each level of support, including the roles for department helpdesks and any central GC support organization; and</li> <li>3. A description of automated tools to facilitate support and service delivery.</li> </ol>	<p>Points will be awarded in the following manner:</p> <p><b>10 pts</b> = The information provided includes a documented and Tri-Agency-specific incident management process.</p> <p>The information provided highlights potential integration points and responsibilities for Tri-Agency and contractor service desks during incident identification and resolution.</p> <p>The information provided includes a recommended escalation management process detailing the various levels of support and who would own each level of support, including the roles for department helpdesks and any central GC support organization.</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
		<p>The information provided includes a description of automated tools to facilitate support and service delivery.</p> <p><b>6 pts</b> = The information provided includes a documented and Tri-Agency-specific incident management process.</p> <p>The information provided highlights potential integration points and responsibilities for Agency and contractor service desks during incident identification and resolution.</p> <p>The information provided includes a recommended escalation management process detailing the various levels of support and who would own each level of support, including the roles for department helpdesks and any central GC support organization.</p> <p><b>2 pts</b> = The information provided includes a documented and generic incident management process.</p> <p><b>0 pts</b> = The information provided does not, or insufficiently, indicate how incidents and service requests will be resolved efficiently and effectively.</p>	
<b>R-1.7</b>	<p><b><u>Project Security – Security Policy</u></b></p> <p>The Bidder should demonstrate their proposed Security Architecture, which includes:</p> <ol style="list-style-type: none"> <li>1. The requirement that only resources who have the security clearance to perform a task are authorized to access protected information, assets or site(s).</li> <li>2. The requirement to ensure that the security policy is applied throughout the entire Bidder's Team including all subcontractors.</li> <li>3. The use of encryption at rest and in transit for all data.</li> <li>4. The proposed security layers to segregate data, applications, and access in accordance with the SoW Appendix H section 1. Security/Privacy Requirements</li> </ol> <p><b>The security policy of subcontracted organizations will not be accepted for evaluation purposes in response to this criterion.</b></p>	<p>Points will be awarded in the following manner:</p> <p><b>5 pts</b> = Response has addressed all requirements in points 1 through 4 and has tailored its response to the TGMS Project</p> <p><b>4 pts</b> = Response has addressed the requirements of points 1 through 4, but has not tailored its response to the TGMS Project</p> <p><b>2 pt</b> = Response partially addresses 3 of the 4 points</p> <p><b>0 pts</b> = Response addresses fewer than 3 of the points</p>	



## R 2.0 Functional Requirements

To obtain maximum score, the bidder must demonstrate that the proposed out-of-the-box Microsoft Dynamics 365 and Microsoft Power Platform based templates or accelerators can deliver the capabilities set out below through configuration (including administrator interfaces to complete those changes) and further described in SOW Appendix C – Functional Requirements. Give examples of services the Microsoft Dynamics 365 and Microsoft Power Platform has enabled.

For the purposes of scoring, the following definitions are used:

**Fully supported “out of the box”:** The described capability is fully supported as installed by either the platform, included templates, or accelerators.

**Low complexity configuration:** Configuration is possible via self-service app development to end user agency staff with no coding experience or training necessary.

**Medium complexity configuration:** Configuration is possible by trained agency business staff which may include manually writing code or scripts.

**High complexity configuration:** Configuration is possible but requires trained IT developers to write significant amounts of code or scripts.

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder’s bid (page #)
<b>R-2.1</b>	<p><b>Bio-Profile capabilities</b></p> <p>All users (Agency Administrators, Agency Analysts, Reviewers, Research Administrators, and Applicants) access TGMS, complete a Bio Profile containing personal (i.e., name, date of birth, etc.) and professional information (i.e., field of study, affiliated institutions, etc.), and update this information as required. An individual will have one access to TGMS, to create their Bio Profile. The information in the Bio Profile can be used to prepopulate fields such as tombstone information (i.e., name, contact, etc.) but may also contain information to complete an applicant or reviewer Curriculum Vitae (CV) submission, depending on the role the users possess.</p> <p><b>The Proposed solution should enable the following capabilities:</b></p> <ul style="list-style-type: none"><li>- TGMS users are able to maintain (create, update) a bio-profile containing tombstone and role specific information.</li><li>- Applicants and Reviewers are able to select data from their profiles or upload data from an external source to create an online or offline application CV.</li></ul>	<p><b>15 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft Power Platform, or the bidder’s templates or accelerators included in proposal.</p> <p><b>12 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p> <p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by Microsoft Dynamics 365 and Microsoft Power Platform or the respondent’s templates or accelerators included in proposal.</p> <p><b>2 pts</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	
<b>R-2.2</b>	<p><b>Arrange &amp; Acquit capabilities</b></p>	<p><b>15 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
	<p>These capabilities enable overall program design and implementation, including closing nodes (such as Funding Opportunities) once the work is complete.</p> <p><b>The Proposed solution should enable the following capabilities:</b></p> <ul style="list-style-type: none"> <li>- Agency Administrators can create and modify a multi-layered Funding Structure.</li> <li>- Agency Administrators can establish relationships between Funding Structure Nodes in addition to the typical parent-child relationship. It may be necessary to create a many-to-many relationship between nodes to satisfy a business need.</li> <li>- Agency Administrators are able to define the various assessment related requirements for each stage of the application process. Assessment related requirements include, but are not limited to: scoring matrix requirements, committee review requirements, external review requirements, and staff review requirements.</li> <li>- Agency Administrators are able to define a committee.</li> <li>- Agency Administrators are able to invite and manage reviewers to evaluate applications.</li> <li>- Agency Administrators are able to define a funding partner organization and associate it to any funding structure node.</li> <li>- Agency Administrators are able to manage the approval authority and consent for any funding structure node.</li> <li>- Agency Administrators are able to create and manage a budget for a funding structure node or group so that staff can operate within their budget allocations.</li> </ul>	<p>Power Platform, or the bidder's templates or accelerators included in proposal.</p> <p><b>12 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p> <p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by Microsoft Dynamics 365 and Microsoft Power Platform or the respondent's templates or accelerators included in proposal.</p> <p><b>2 pts</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	
<b>R-2.3</b>	<p><b>Apply capabilities</b></p> <p>These capabilities enable the management and submission of one or multiple applications for various purposes (e.g., funding submission, appeals submission, continuing institutional eligibility submission, amendment of an award, etc.)</p> <p>Although it is envisioned that applicants, research administrators are able to create their application CVs through the bio profile management capability, it is also</p>	<p><b>15 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft Power Platform, or the bidder's templates or accelerators included in proposal.</p> <p><b>12 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
	<p>envisioned that these users will also be able to upload a file containing their applicant CV information to their application.</p> <p><b>The Proposed solution should enable the following capabilities:</b></p> <ul style="list-style-type: none"> <li>- Applicants are able to create an application and manage supporting documentation for an application.</li> <li>- Applicants are able to invite one or many participants to contribute to an application and manage the workflow of adding a participant.</li> <li>- Participants are able to access an application they have agreed to participate in.</li> <li>- Participants are able to manage the content of an application in which they are participating.</li> <li>- Agency administrators are able to configure an application form and manage associated workflows.</li> </ul>	<p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by Microsoft Dynamics 365 and Microsoft Power Platform or the respondent's templates or accelerators included in proposal.</p> <p><b>2 pt</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	
<b>R-2.4</b>	<p><b>Assess capabilities</b></p> <p>Consists of the capabilities relating to the assessment of an application, including administrative assessments (eligibility and compliance), Peer/Merit review, etc.</p> <p><b>The Proposed solution should enable the following capabilities:</b></p> <ul style="list-style-type: none"> <li>- Research Administrators are able to approve a participation request so that a participant from their institution can participate on another institution's application.</li> <li>- Research Administrators are able to approve one, some or all applications submitted to the institution. Approved applications are submitted to the relevant agency.</li> <li>- Research Administrators, Agency Analysts, and Agency Administrators conduct eligibility validation in order to assess the eligibility of the application against the funding opportunity. This includes the assessment of applicant eligibility, subject matter eligibility, participant eligibility, applicant partner organization eligibility, institutional eligibility, regulatory eligibility and funding opportunity specific eligibility.</li> </ul>	<p><b>15 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft Power Platform, or the bidder's templates or accelerators included in proposal.</p> <p><b>12 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p> <p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by Microsoft Dynamics 365 and Microsoft Power Platform or the respondent's templates or accelerators included in proposal.</p> <p><b>2 pt</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
<b>R-2.5</b>	<p><b>Award capabilities</b></p> <p>Consists of the series of capabilities relating to examination of the results of assessment processes to create funding recommendations, and the associated agreements, and create awards for the successful applications.</p> <p><b>The Proposed solution must enable and support the following capabilities:</b></p> <ul style="list-style-type: none"> <li>- Agency Administrators are able to store award data so that it is accurate and up to date.</li> <li>- Agency Administrators are able to create a Notice of Decision for each award/child award to inform Applicants and participants of the outcome of the competition and any possible award conditions.</li> <li>- Awardees are able to respond to a Notice of Decision. Agency Administrators are informed when a Notice of Decision response is available.</li> </ul>	<p><b>10 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft Power Platform, or the bidder's templates or accelerators included in proposal.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>6 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p> <p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by Microsoft Dynamics 365 and Microsoft Power Platform or the respondent's templates or accelerators included in proposal.</p> <p><b>2 pt</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	
<b>R-2.6</b>	<p><b>Audit &amp; Evaluation capabilities</b></p> <p>All federal organizations are required to perform and publish audits and evaluations, perform corporate reporting, and provide proactive disclosure. These are audits of management practices and activities, such as policy compliance, and evaluations of programs and initiatives to assess relevance, performance and value for money.</p> <p><b>The Proposed solution should enable the following capabilities:</b></p> <ul style="list-style-type: none"> <li>- Agency Analysts are able to create and update reporting requirements.</li> <li>- Agency Administrators are able to request an external report or survey from a TGMS user. Agency Administrators are able to specify a time frame for the TGMS user to respond to an external report request.</li> </ul>	<p><b>15 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft Power Platform, or the bidder's templates or accelerators included in proposal.</p> <p><b>12 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p> <p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by</p>	

#	Rated Evaluation Criteria	Scoring Method	Cross Reference to Bidder's bid (page #)
	<ul style="list-style-type: none"> <li>- Agency Administrators are able to store the results of a completed survey so that they can be analyzed.</li> </ul>	<p>Microsoft Dynamics 365 and Microsoft Power Platform or the respondent's templates or accelerators included in proposal.</p> <p><b>2 pts</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	
<b>R-2.7</b>	<p><b>Analytics capabilities</b></p> <p>In addition to the reporting and monitoring outlined above, staff and stakeholders (including other government departments) also need to generate other reports and conduct advanced analyses of data within or among nodes within the funding structure to inform decision-making.</p> <p><b>The Proposed solution should enable the following capabilities:</b></p> <ul style="list-style-type: none"> <li>- Agency Administrators and Agency Analysts are able to configure, save, and share ad hoc reports based on information contained within the solution.</li> </ul>	<p><b>10 pts</b> – The capabilities listed are demonstrated as being fully supported out of the box by Microsoft Dynamics 365 and Microsoft Power Platform, or the bidder's templates or accelerators included in proposal.</p> <p><b>8 pts</b> – The capabilities listed are demonstrated as being fully supported requiring low complexity configuration.</p> <p><b>6 pts</b> – The capabilities listed are demonstrated as being fully supported through medium to high complexity configuration.</p> <p><b>4 pts</b> – The capabilities listed are partially demonstrated as being supported out of the box, or by low complexity configuration by Microsoft Dynamics 365 and Microsoft Power Platform or the respondent's templates or accelerators included in proposal.</p> <p><b>2 pts</b> - The capabilities listed are demonstrated as being partially supported through medium to high complexity configuration.</p> <p><b>0 pts</b> – The capabilities listed are not demonstrated to be supported by the proposed solution, or capability delivery is reliant on third party enhancements not included in the response.</p>	

3.0 Previous Microsoft Dynamics 365 and Microsoft Power Platform based GMS Deployment References

Bidders must provide two (2) references by completing Appendix C - GMS Deployment Reference Form

Previous Microsoft Dynamics 365 and Microsoft Power Platform Grants Management Solution (GMS) Deployment Reference Form			
Reference A			
#	Criteria	Scoring Method	Response
R-3.1a	The Bidder identifies the date at which the reference project went into live production with the GMS. The bidder additionally identifies their performance against the initial budget and timelines of the project.	Points will be awarded in the following manner: <b>5 pts</b> = ≥ 24 months prior to the closing date of the RFP and was within initial budget and timelines. <b>4 pts</b> = < 24 months - ≥ 12 months prior to the closing date of the RFP and was within initial budget and timelines. <b>3 pts</b> = ≥ 24 months prior to the closing date of the RFP and exceeded initial budget or timelines. <b>2 pts</b> = < 24 months - ≥ 12 months prior to the closing date of the RFP and exceeded initial budget or timelines. <b>1 pt</b> = < 12 months prior to the closing date of the RFP or initial budget and timeline performance not provided. <b>0 pts</b> = not in live production or no comparable response	
R-3.2a	The Bidder identifies the languages supported in the reference project where supported languages should include English and French.	Points will be awarded in the following manner: <b>2 pts</b> = the languages supported in the reference project include English and French <b>1 pt</b> = the languages supported in the reference project include English or French and another second language <b>0 pts</b> = the languages supported in the reference project include neither English nor French or no comparable response	
R-3.3a	The Bidder identifies the scope of grants management accelerators, templates, implementation, and knowledge transfer services provided in support of the reference project.	Points will be awarded in the following manner: <b>2 pts</b> = the solution provider proposed for the TGMS project is the organization that provided the implementation services in support of the reference Project, including knowledge transfer or training for organization staff to manage and deploy future business requirements beyond the scope of the initial engagement <b>1 pt</b> = the solution provider proposed for the TGMS project is the organization that provided the implementation services in support of the reference Project, which did not include knowledge transfer or training for organization staff to manage and deploy future business requirements beyond the scope of the initial engagement <b>0 pts</b> = the solution provider proposed for the TGMS project	

Previous Microsoft Dynamics 365 and Microsoft Power Platform Grants Management Solution (GMS) Deployment Reference Form			
Reference A			
#	Criteria	Scoring Method	Response
		is not the organization that provided the implementation services in support of the reference Project or no comparable response	
R-3.4a	The Bidder identifies the scope of the ongoing operational support services provided in support of the reference Project.	Points will be awarded in the following manner: <b>2 pts</b> = the solution provider proposed for the TGMS project is the organization that provided the ongoing operational support services in support of the reference Project <b>0 pts</b> = the solution provider proposed for the TGMS project is not the organization that provided the ongoing operational support services in support of the reference Project or no comparable response	
R-3.5a	To receive maximum allowable points, the Reference Project must incorporate the deployment of the following Level 1 business capabilities: 1. "BIO-PROFILE" BUSINESS CAPABILITY 2. "ARRANGE AND ACQUIT" BUSINESS CAPABILITY 3. "APPLY" BUSINESS CAPABILITY 4. "ASSESS" BUSINESS CAPABILITY 5. "AWARD" BUSINESS CAPABILITY 6. "ADMINISTRATION" BUSINESS CAPABILITY 7. "AUDIT AND EVALUATION" BUSINESS CAPABILITY 8. "ANALYTICS" BUSINESS CAPABILITY 9. "STAKEHOLDER MANAGEMENT" BUSINESS CAPABILITY 10. "PROGRAM BUDGET MANAGEMENT" BUSINESS CAPABILITY 11. "COMMON SERVICES" BUSINESS CAPABILITIES	Points will be awarded in the following manner: <b>2 pts</b> = Referenced project incorporated deployment of 10 or more of capabilities 1 through 11 <b>1 pt</b> = Referenced project incorporated deployment of less than 10, but more than 6 of capabilities 1 through 11 <b>0 pts</b> = Referenced project incorporated deployment of less than 6 of capabilities 1 through 11 or provides no relevant response	
R-3.6a	The Bidder identifies the number of grant or award applications handled annually by the deployed GMS.	Points will be awarded in the following manner: <b>2 pts</b> = ≥ 30,000 grant or award applications annually <b>1 pt</b> = ≥ 10,000 - < 30,000 grant or award applications annually <b>0 pts</b> = < 10,000 grant or award applications annually or no comparable response	

Previous Microsoft Dynamics 365 and Microsoft Power Platform Grants Management Solution (GMS) Deployment Reference Form			
Reference B			
#	Criteria	Scoring Method	Response
R-3.1b	The Bidder identifies the date at which the reference project went into live production with the GMS. The bidder additionally identifies their performance against the initial budget and timelines of the project.	Points will be awarded in the following manner: <b>5 pts</b> = ≥ 24 months prior to the closing date of the RFP and was within initial budget and timelines. <b>4 pts</b> = < 24 months - ≥ 12 months prior to the closing date of the RFP and was within initial budget and timelines. <b>3 pts</b> = ≥ 24 months prior to the closing date of the RFP and exceeded initial budget or timelines. <b>2 pts</b> = < 24 months - ≥ 12 months prior to the closing date of the RFP and exceeded initial budget or timelines. <b>1 pt</b> = < 12 months prior to the closing date of the RFP or initial budget and timeline performance not provided. <b>0 pts</b> = not in live production or no comparable response	
R-3.2b	The Bidder identifies the languages supported in the reference project where supported languages should include English and French.	Points will be awarded in the following manner: <b>2 pts</b> = the languages supported in the reference project include English and French <b>1 pt</b> = the languages supported in the reference project include English or French and another second language <b>0 pts</b> = the languages supported in the reference project include neither English nor French or no comparable response	
R-3.3b	The Bidder identifies the scope of grants management accelerators, templates, implementation, and knowledge transfer services provided in support of the reference project..	Points will be awarded in the following manner: <b>2 pts</b> = the solution provider proposed for the TGMS project is the organization that provided the implementation services in support of the reference Project, including knowledge transfer or training for organization staff to manage and deploy future business requirements beyond the scope of the initial engagement <b>1 pt</b> = the solution provider proposed for the TGMS project is the organization that provided the implementation services in support of the reference Project, which did not include knowledge transfer or training for organization staff to manage and deploy future business requirements beyond the scope of the initial engagement <b>0 pts</b> = the solution provider proposed for the TGMS project is not the organization that provided the implementation services in support of the reference Project or no comparable response	
R-3.4b	The Bidder identifies the scope of the ongoing operational support services provided in support of the reference	Points will be awarded in the following manner: <b>2 pts</b> = the solution provider proposed for the TGMS project is	



Previous Microsoft Dynamics 365 and Microsoft Power Platform Grants Management Solution (GMS) Deployment Reference Form			
Reference B			
#	Criteria	Scoring Method	Response
	Project.	the organization that provided the ongoing operational support services in support of the reference Project <b>0 pts</b> = the solution provider proposed for the TGMS project is not the organization that provided the ongoing operational support services in support of the reference Project or no comparable response	
R-3.5b	<p>To receive maximum allowable points, the Reference Project must incorporate the deployment of the following Level 1 business capabilities:</p> <ol style="list-style-type: none"> <li>1. "BIO-PROFILE" BUSINESS CAPABILITY</li> <li>2. "ARRANGE AND ACQUIT" BUSINESS CAPABILITY</li> <li>3. "APPLY" BUSINESS CAPABILITY</li> <li>4. "ASSESS" BUSINESS CAPABILITY</li> <li>5. "AWARD" BUSINESS CAPABILITY</li> <li>6. "ADMINISTRATION" BUSINESS CAPABILITY</li> <li>7. "AUDIT AND EVALUATION" BUSINESS CAPABILITY</li> <li>8. "ANALYTICS" BUSINESS CAPABILITY</li> <li>9. "STAKEHOLDER MANAGEMENT" BUSINESS CAPABILITY</li> <li>10. "PROGRAM BUDGET MANAGEMENT" BUSINESS CAPABILITY</li> <li>11. "COMMON SERVICES" BUSINESS CAPABILITIES</li> </ol>	<p>Points will be awarded in the following manner:</p> <p><b>2 pts</b> = Referenced project incorporated deployment of 10 or more of capabilities 1 through 11  <b>1 pt</b> = Referenced project incorporated deployment of less than 10, but more than 6 of capabilities 1 through 11  <b>0 pts</b> = Referenced project incorporated deployment of less than 6 of capabilities 1 through 11 or provides no relevant response</p>	
R-3.6b	The Bidder identifies the number of grant or award applications handled annually by the deployed GMS.	<p>Points will be awarded in the following manner:</p> <p><b>2 pts</b> = ≥ 30,000 grant or award applications annually  <b>1 pt</b> = ≥ 10,000 - &lt; 30,000 grant or award applications annually  <b>0 pts</b> = &lt; 10,000 grant or award applications annually or no comparable response</p>	

**ATTACHMENT 4.2**  
**PRICING SCHEDULE**

TABLE 1 LICENSED SOFTWARE					
Item No.	Grants management templates or platform configuration accelerators Enterprise License	Perpetual Enterprise License Cost Year 1	Perpetual Enterprise License Cost Year 2	Perpetual Enterprise License Cost Year 3	Total Cost
	<b><u>FIRM PRICE OF PERPETUAL ENTERPRISE LICENSE:</u></b> This cost should cover a perpetual license for all out of the box functionalities as well as licenses for any additional software to assist with delivery.				
1		\$	\$	\$	\$
2		\$	\$	\$	\$
3		\$	\$	\$	\$
4		\$	\$	\$	\$
5		\$	\$	\$	\$
Sub-Total for Licensed Software					

TABLE 2 ANNUAL MAINTENANCE AND SOFTWARE SUPPORT			
Item No.	Optional Deliverables Description	Option Year 1	Option Year 2
1	Annual Maintenance and Software Support	\$	\$
Sub-Total for Annual Maintenance and Software Support			

**TABLE 3**  
**BUSINESS CAPABILITIES**

Item No.	Business capabilities	Definition	Delivery Cost
1	Bio-Profile	Access TGMS, complete a Bio-Profile containing personal information (e.g., name, date of birth, etc.) and professional information (e.g., field of study, affiliated institutions, etc.) and update this information as required.	\$
2	Arrange and Acquit	Design, implement, manage and close funding structure nodes	\$
3	Apply	Manage and submit one or multiple applications for various purposes (e.g., funding submission, appeals submission, continuing institutional eligibility submission, amendment of an award, etc.)	\$
4	Assess	Assess an application, including administrative assessments (eligibility and compliance), relevance and merit reviews, appeals, etc.	\$
5	Award	Examine the results of the assessment process and create funding recommendations and the associated agreements, and create awards for the successful applications	\$
6	Administration	Monitor awards and administering organizations, process amendments, process allegations, and manage the funds to recipients	\$
7	Audit & Evaluation	Perform and publish audits and evaluations of management practices and activities, perform corporate reporting, and provide proactive disclosure	\$
8	Analytics	Supports the creation and usage of advanced data queries to facilitate the advanced analysis of TGMS data	\$
9	Stakeholder Management	Encompasses Agency Administrators, Agency Analysts, Reviewers, Applicants interactions and self-service that support sharing and recording of information within and outside of the agencies	\$
10	Program Budget Management	Manage and allocate budgets across the Agencies' funding structures	\$
11	Common Services	Supporting capabilities that contribute to all other capabilities.	\$
<b>Sub-Total for Business Capabilities</b>			

**TABLE 4**  
**ROADMAP AND PLANNING DOCUMENT**

Item No.	Deliverables	Delivery Cost
1	<p><b>Solution implementation roadmap</b></p> <p>High level plan that enables the planning, design, configuration, testing, and development of any other materials required for the implementation of the Solution. The Solution implementation roadmap will be co-developed by the agencies and the contractor and updated as the product vision is refined.</p>	\$
2	<p><b>Deployment and operation plan</b></p> <p>Addresses all stages in the deployment of the Solution through the stages of the development lifecycle to deployment in a production context. This includes deployment of integrated and tested incremental releases from the testing environment through staging to operational production. This plan will also include details on involvement, knowledge sharing, and knowledge transfer with Agency staff to support empowerment of the Agencies to support future granting opportunities beyond the contract engagement. The Deployment and operation plan will be delivered by the contractor, with input from the agencies, prior to the commencement of development activities.</p>	\$
3	<p><b>Master test plan</b></p> <p>Plan that outlines an automation centric approach to unit, integration, and acceptance testing. This includes the creation of entrance and exit criteria for components to enter testing phase and exit as technically compliant. The Master test plan will be delivered by the contractor, with input from the agencies, prior to the commencement of development activities.</p>	\$
4	<p><b>Maintenance and support plan</b></p> <p>Plan that provides an understanding of the way the Contractor will deliver the required service levels for the Solution by describing scope, initiation, delivery of support services. The Maintenance and support plan will be delivered by the contractor, with input from the agencies, prior to the promotion of configurations into the production environment.</p>	\$
<b>Sub-Total for Roadmap and Planning Documents</b>		

In respect of the “Estimated Number of Days” listed below in Table 5 (C\*), Table 6 (C\*) and Table 7 (C\*) the estimated number of days is for evaluation purposes only during the solicitation process. The actual number of days during the Contract Period and Option Periods may be more or less, as determined by the Technical Authority.

<b>TABLE 5</b>				
<b>INITIAL CONTRACT PERIOD</b>				
<b>(A)</b>	<b>(B)</b>	<b>(C)</b>	<b>(D)</b>	<b>(E)</b>
<b>Resource Category</b>	<b>Level of Expertise</b>	<b>Estimated Number of Days</b>	<b>Firm Per Diem</b>	<b>Total Cost (C x D)</b>
Application Integration Architect	Level 3	10	\$	\$
Application Technology / COTS Development Specialist	Level 3	10	\$	\$
BI Programmer/Software	Level 3	10	\$	\$
Test Coordinator	Level 3	10	\$	\$
Tester	Level 3	10	\$	\$
Database Modeler	Level 3	10	\$	\$
Technology / Technical Architect	Level 3	10	\$	\$
Project Coordinator	Level 3	10	\$	\$
Project Leader	Level 3	10	\$	\$
Project Manager	Level 3	10	\$	\$
System Integration Project Manager	Level 3	10	\$	\$
Project Executive	Level 3	10	\$	\$
Quality Assurance	Level 3	10	\$	\$
Enterprise Architect	Level 3	10	\$	\$
Information Architect	Level 3	10	\$	\$
Security Architect	Level 3	10	\$	\$
Special Advisor	Level 3	10	\$	\$
Business Transformation Architect	Level 1	10	\$	\$
System Analyst	Level 1	10	\$	\$
Web Architect	Level 1	10	\$	\$
<b>Sub-Total for Initial Contract Period</b>				

TABLE 6				
OPTIONAL CONTRACT PERIOD 001				
(A)	(B)	(C)	(D)	(E)
Resource Category	Level of Expertise	Estimated Number of Days	Firm Per Diem	Total Cost (C x D)
Application Integration Architect	Level 3	10	\$	\$
Application Technology / COTS Development Specialist	Level 3	10	\$	\$
BI Programmer/Software	Level 3	10	\$	\$
Test Coordinator	Level 3	10	\$	\$
Tester	Level 3	10	\$	\$
Database Modeler	Level 3	10	\$	\$
Technology / Technical Architect	Level 3	10	\$	\$
Project Coordinator	Level 3	10	\$	\$
Project Leader	Level 3	10	\$	\$
Project Manager	Level 3	10	\$	\$
System Integration Project Manager	Level 3	10	\$	\$
Project Executive	Level 3	10	\$	\$
Quality Assurance	Level 3	10	\$	\$
Enterprise Architect	Level 3	10	\$	\$
Information Architect	Level 3	10	\$	\$
Security Architect	Level 3	10	\$	\$
Special Advisor	Level 3	10	\$	\$
Business Transformation Architect	Level 1	10	\$	\$
System Analyst	Level 1	10	\$	\$
Web Architect	Level 1	10	\$	\$
Sub-Total for Optional Contract Period 001				

<b>TABLE 7</b> <b>OPTIONAL CONTRACT PERIOD 002</b>				
<b>(A)</b>	<b>(B)</b>	<b>(C)</b>	<b>(D)</b>	<b>(E)</b>
<b>Resource Category</b>	<b>Level of Expertise</b>	<b>Estimated Number of Days</b>	<b>Firm Per Diem</b>	<b>Total Cost (C x D)</b>
Application Integration Architect	Level 3	10	\$	\$
Application Technology / COTS Development Specialist	Level 3	10	\$	\$
BI Programmer/Software	Level 3	10	\$	\$
Test Coordinator	Level 3	10	\$	\$
Tester	Level 3	10	\$	\$
Database Modeler	Level 3	10	\$	\$
Technology / Technical Architect	Level 3	10	\$	\$
Project Coordinator	Level 3	10	\$	\$
Project Leader	Level 3	10	\$	\$
Project Manager	Level 3	10	\$	\$
System Integration Project Manager	Level 3	10	\$	\$
Project Executive	Level 3	10	\$	\$
Quality Assurance	Level 3	10	\$	\$
Enterprise Architect	Level 3	10	\$	\$
Information Architect	Level 3	10	\$	\$
Security Architect	Level 3	10	\$	\$
Special Advisor	Level 3	10	\$	\$
Business Transformation Architect	Level 1	10	\$	\$
System Analyst	Level 1	10	\$	\$
Web Architect	Level 1	10	\$	\$
<b>Sub-Total for Optional Contract Period 002</b>				

<b>TABLE 8</b>	
<b>TOTAL BID PRICE</b>	
<b>TABLE 1 – Sub-Total for Licensed Software</b>	\$
<b>TABLE 2 – Sub-Total for Annual Maintenance and Software Support</b>	\$
<b>TABLE 3 – Sub-Total for Business Capabilities</b>	\$
<b>TABLE 4 – Sub-Total for Roadmap and Planning Documents</b>	\$
<b>TABLE 5 – Sub-Total for Initial Contract Period</b>	\$
<b>TABLE 6 – Sub-Total for Option Period 001</b>	\$
<b>TABLE 7 – Sub-Total for Option Period 002</b>	\$
<b>TOTAL BID PRICE</b>	

#### Optional Solution Component – Learning Management Solution

Canada has identified a need for a Learning Management Solution to support the grants management and review process. This need, however, has not been included as a mandatory component of this procurement. Bidders are invited to propose, their pricing for the licensing and delivery for this component (if available). The following pricing will not be included in the financial calculations and will only be Optional Solution Component, exercised at the discretion of Canada. Bidders are not required to provide a price for the Optional Solution Component.

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Total</b>
<b>Licensed product description</b>	\$	\$	\$	\$

<b>Business Capability</b>	<b>Definition</b>	<b>Delivery Cost</b>
<b>Continuous Learning</b>	Creation, consumption, and monitoring of learning materials for stakeholders based on their role(s). Stakeholders include staff as well as applicants, reviewers, advisory committee members and others.	\$



## ATTACHMENT 5.1

### FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION

**Remark to Contracting Authority:** Insert the following certification for requirements issued on behalf of a Department or Agency subject to the FCP, estimated at \$1,000,000 **and above**, Applicable Taxes included: (consult Annex 5.1 of the Supply Manual)(See also Part 5 – Certifications and Additional Information and Part 7 - Resulting Contract Clauses)

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\) - Labour's](#) website.

Date: \_\_\_\_\_ (YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Bidder certifies having no work force in Canada.
- ☐ A2. The Bidder certifies being a public sector employer.
- ☐ A3. The Bidder certifies being a federally regulated employer being subject to the [Employment Equity Act](#).
- ☐ A4. The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.
- A5. The Bidder has a combined workforce in Canada of 100 or more employees; and
- ☐ A5.1 The Bidder certifies already having a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with ESDC-Labour.

OR

- ☐ A5.2 The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- ☐ B1. The Bidder is not a Joint Venture.

OR

- ☐ B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions).