Annex F - Questions and Answers

A. Industry Day Questions and Answers

Note: Additional information, underlined below, has been added to some answers to provide additional Tri-Agency context.

Question 1. The US has an executive level agenda item around "results-oriented accountability for Grants" - have you reviewed their work?

Answer. We have reviewed the work done in the US around results-oriented accountability for grants thoroughly, and we are using principles from this work, where applicable, and as they align with the TGMS management model.

Question 2. How do you foresee data being shared between the three agencies? Do you foresee instances where data MUST be visible to all or at the opposite, remain private?

Answer. Sharing data and analytics between the three agencies is very important to our operations. We are looking at the sharing of data from both an analytics perspective and for applicants to be able to reuse data (reducing data re-entry) across agencies and programs. There will be some instances where data is private or sensitive and will thus be restricted in access, as there may be sensitive information included (e.g. Equity, Diversity and Inclusion (EDI), Responsible Conduct of Research). In order to access certain data, governance and permissions at the user level will need to be defined.

Question 3. Follow/up question to #2: Are we looking into a one-size/one instance solution that run for the tri-council or are you looking for same infrastructure and same platform being run independently on 3 different instances?

Answer. At this time, we cannot be firm without better understanding what that means for the three agencies. There are issues with respect to accountabilities because there are three Ministers involved (Minister of Innovation, Science and Economic Development, Minister of Science and Sport and Minister of Health). We are open to looking at different avenues. Before we make this decision, we will need more information on what the grants management solution would look like to understand the implications of each option.

Question 4. Will Canada specify a Software as a Service model? Are you for, against, or open to it?

Answer. We are open to all options at this point. Based on feedback from options from vendors, we will narrow it down using existing Government of Canada criteria and standards.

Question 5. Do you foresee in this project a phase for Process Optimization/normalization or should the new system be tailored to the current processes?

Answer. Standardization and harmonization of our business processes is a priority for this initiative, and it is of interest to adopt processes that will be more efficient. We recognize that some processes are inefficient and standardizing these will prove beneficial.

The Tri-Agency Grants Management Solution executive board has been discussing areas where we can standardize and adapt processes, and where investments need to be made to configure this. Our objective is to have industry challenge the status quo and propose the best options for these processes, as system flexibility will allow us to adapt to new capabilities and grow with the business. Cost will also be a factor as the agencies do not have unlimited budgets.

Question 6. Follow/up question to #5: With respect to government policies and how they drive how processes are defined, how much are stakeholders within these organizations positioned to accept a business transformation?

Answer. An important factor in this initiative is the involvement of internal and external stakeholders. Throughout the process, we will be continuously engaging with users to hear feedback from their experience. Any changes must be implemented with the user in mind, ensuring that we understand their interactions with the solution. We need to understand the change, and involve the user in the development of the solution. For instance, in stage 2 of the discovery phase, we would like users to play a part in prototyping so they are actively involved in the co-design of the solution(s). When the users are involved and understand why and how things are being changed, the transition will be better received.

Question 7. Follow/up question #6: Are peer reviews processes all the same? Do you get them all together to do blind reviews?

Answer. There are all sorts of peer reviews and different permutations amongst the three agencies. The three agencies all receive grants and awards applications, and then assign these applications to volunteer peer reviewers drawn for their expertise in a particular area. For some programs, algorithms are used to complete the assignments using the analytics tool *"R"*. Depending on the funding program, the assignment can be done either randomly or by research expertise. Peer reviewers provide comments and a rating (with various rating scales depending on the funding program). There are several methods used across the many funding programs (e.g. blind review, electronic voting, face-to-face peer review, teleconference, virtual review). Evaluation criteria can differ in number, weight, scoring scales amongst programs and the evaluation methods are routinely evolving.

There are many different stakeholders in the peer review process. The institutions (universities and hospitals) have a huge role in our systems based on signed agreements with the agencies to administer the funds to the researchers. Funding provided by the agencies is routed to the institutions and not the grant recipient themselves and it is the former's responsibility to administer and monitor the appropriate use of these funds. Institutions conduct institutional reviews at their institutions.

Data is shared externally with institutions after competitions. Typically, this is shared using a variety of formats such as Excel spreadsheets. Accessibility in different formats is preferable. As the role of institutions in the management of the grants/awards that they administer is extensive, their involvement in the discovery phase is important.

Question 8. Recognizing that change management would be a big part of the project, has there been any effort to-date in process/data harmonization between the three agencies?

Answer. Yes. The team has worked and continues to work on current business process mapping and how they can be standardized. The three agencies have also come together to review how we collect data with the Canadian Common CV and how we can be more consistent on what is being collected between the agencies. There are some limits to our current systems that limit standardization but these are the requirements that we are looking for in the future solution.

In the coming months, the TGMS team will continue to focus on looking at how we can harmonize some of the business processes to be more common/similar, but considering budget limitations. At the data collection level and process level, we will be thinking what is important for the agencies. For example, does it matter if there are three evaluation criteria or two – can we harmonize this process? We acknowledge that this will be a major area of focus.

Question 9. What is the envisioned desired timeline for the actual system, go live?

Answer. Our proposed timeline indicates that the solution will be migrated, systems tested and operating by Q1 of 2021/2022. Once we have the contractor(s), we will work with them on confirming the timeline.

In order to stay within projected timelines and limit delay, we will spend the time at the beginning of the initiative to do this right so we do not get to the project phase with major changes. This will be done in a measured and engaged way with the research community. The TGMS team will work with the contractor (s) selected to plan the onboarding strategy to prioritize the business capabilities – see Annex D of the Notice of Planned Procurement. Informing the timeline with industry is important in order to make strategic decisions on the systems and establishing reasonable timelines. This is critical to ensure we have ongoing service for the research community during the onboarding.

Question 10. What is your priority: the buy-in of your groups or meeting our timelines?

Answer. Our priority is the research and engagement with our stakeholders. We want to ensure that our stakeholders are confident that the initiative is going well, rather than to prioritize timelines. We will be monitoring buy-in by involving stakeholders, communicating and giving the opportunity to test the solution(s). The TGMS team would like the solution to be operational as early as possible, but not at the expense of doing things correctly.

Question 11. Would it make sense to have a design thinking workshop upfront focusing on people and processes aside of the tools and technology with a partner(s)? Revisiting the journey maps with partner(s) in the next several weeks. Maybe this is a separate phase aside from what you have already that can happen this year. Would that make sense?

Answer. This is an interesting suggestion, the more we can do upfront makes sense. The idea of opening the door to what the team has done is worth consideration. We will take this idea back to the team and see how we can incorporate this into the phases.

Question 12. Will there be an opportunity for providers to collaborate, e.g. a consortia of companies forming to provide an end to end solution?

Answer. Yes, we are open to this concept if it makes sense for suppliers to work together. We want to hear from suppliers because we do not only want part of a solution. For example, if there is a supplier that can do 30% - 50% of the business requirements and others can do other sections; we are open to all models. We are looking to the industry to how we move forward from here and we are open to various options.

Question 13. Have you done any research on best practices internationally, for grant management and reporting of outcomes?

Answer. Yes, through the Research Portal (RP) 2.0 and EnaBLeS initiatives, the two precursors to this current initiative, there was a lot of research done on best practices internationally. We looked at models for grant management and reporting of outcomes from the USA (National Science Foundation & National Institutes of Health), Netherlands, Portugal and Australia. Grant management is complex.

As for reporting on outcomes, we have not been as extensive in our research although we have done a significant effort internally. We worked with BDO in 2018 along with the executive board and some external stakeholders in an open session to define five outcomes that all the agencies supported. The TGMS team is now reassessing and refining the initiative outcomes with more internal stakeholders across the three agencies to come up with key performance indicators (KPIs) to allow internal measurement against the outcomes.

Question 14. Will Canada provide the business process and other documentation they have developed in advance of the procurement process?

Answer. Yes, we are open to sharing these key documents if this is useful and of interest to vendors, but will need to determine the most logical time for this. The goal would be to share the information with interested vendors fairly whether it be part of the pre-qualification process or an engagement type process.

Question 15. What auditing and compliance requirements do you have?

Answer. There are a large number of compliance requirements under the Government of Canada (such as accessibility, official languages, etc.). Access to data will require permissions, but there are some significant additional requirements, which must be in place. For example, an audit trail of who updates what information and for what reasons is essential. <u>There are instances where the agencies are asked to modify applications that have already been submitted.</u> Such activities are sensitive and an audit trail is necessary for transparency

Question 16. Is there a requirement for digital signatures?

Answer. Yes, as we do need a sign off on grants/awards. For example, we require that applicant seek signatures on their grant/award applications from multiple people and locations. The user experience for this process could be more efficient with digital signatures. In addition, for internal management processes at the three agencies, we are moving towards less office space so there will be less space for signed paper documents/folders.

Question 17. Has Canada worked with a vendor/consultant to codify the common business processes across the tri-agencies? If yes who?

Answer. No, vendors have not been consulted for codifying common business processes. The TGMS team has been completing this internally with the assistance of a capacity on demand consultants. We are open to hearing from industry on your suggestions.

Question 18. Which consulting companies have you engaged to date on this initiative?

Answer. The TGMS Initiative engaged with the following companies prior to releasing the Notice of Proposed Procurement, any questions related to conflict of interest - unfair advantage must be directed to the Contracting Authority for assessment.

<u>Veritaaq Technology House Inc.</u>
<u>Excel Human Resources Inc.</u>
<u>CORADIX Technology Consulting Ltd</u>
<u>S.i. Systems Ltd</u>
<u>Altis Human Resources (Ottawa) Inc.</u>
<u>RFP Solutions Inc.</u>

Pleiad Canada Inc.
BDO CANADA LLP
ADRM TECHNOLOGY CONSULTING GROUP CORP
Forrester Research Limited
SSORD DEFENCE CONSULTING INC
Gartner Canada Co.
Eagle Professional Resources Inc
Rhetorica Inc.
Deloitte LLP
PRICEWATERHOUSECOOPERS LLP

Question 19. Do you plan on retiring any technology as part of this program. Are there specific systems that are scheduled for retirement? Is there a timeline for retirement?

Answer. For example, the technology that CIHR has goes back to 1999 (EIS) and 2004 (ResearchNet), so we will have to assess and develop an implementation plan prior to this decision. If we do not need the current solution(s), we are open to retiring them but we need the implementation plan to understand whether we will be building by business capability or program. If there are integration needs, this will play a big role in that decision. We will need to figure out the deployment schedule before we can start the discussion about retiring technology. Since we are moving toward a new solution, we are making minimal investments to our technology so that it keeps going for our research community.

Question 20. Have you been working with a vendor on journey mapping and co-design and if so who?

Answer. We have been working extensively on personas, initial journey mapping, and now moving into validation. We have been working with Forrester and continue to build that skill-set internally so it is very much a partnership.

Question 21. Is there a need for resources designing or implementing this solution to carry any level of Canadian government clearance levels? (Secret, etc.?)

Answer. Much of the data collected by the agencies is Protected B. We do have some Secret documentation during Government of Canada Treasury Board submissions, but would not reside in the grants management solution(s). We are looking for Protected B clearance level for information such as banking and Equity Diversity and Inclusion (EDI) information.

Question 22. Can you elaborate on the intent of the "proposed strawman implementation and deployment approach" noted in your Industry Engagement Key topics section? Cloud SaaS/on premises.

Answer. The purpose is to put something on paper in order to show some preliminary thinking. It was just to give an idea of what we thought might be reasonable. It may or may not be a good idea; it was just a way to give an idea of the basic thoughts around that.

Question 23. A question on the notion of “provision TGMS as a contractor operated solution” – wanted you to elaborate on the “contractor operated solution” aspect – is that just about software as a solution? Or software as a solution that is hosted outside of the agency and is leased/bought into as a separate entity?

Answer. We would be open to that, we are open to SaaS, Cloud, and we are open to a contractor coming in and saying that they will host the technology and run the maintenance. The Contractor does not have to do that, but we were trying to say that if a contractor wants to come in and co-build with us and take on the maintenance for 5/10 years after, because we do see value in industry helping us keep that technology up to date, and we believe you have some incentive to do that. That is not our preferred approach necessarily; we are open to the whole range of options.

Question 24. What would you say you have learned collectively so as not to repeat the challenges of the past? e.g. how are you working to avoid unintentional complexity?

Answer. We want to take the time to do things right, engage stakeholders, and understand that this is as much change management as it is creating a new solution. In terms of working to avoid unintentional complexity, the agencies are investing effort in looking at harmonization and standardization. Since we have finite financial resources, we will need to make decisions (via the executive board) around adopting and adapting and we will put effort into engaging people and partners to help push us on status quo, and to take the complexity out.

However, we do not expect the system to be a silver bullet either. Some things will need to be implemented through process, people and governance rather than a system with too many business rules. A key lesson has been the importance of governance and there is a commitment from each agency to make it work.

Question 25. Follow up question: Have you given any thought about how the other partners will be affected by the potential change of the current CV application (CCV)? Being that it’s used more broadly than just the tri-council?

Answer. This is something we have discussed: the CCV is an application, so the idea of collecting CV like data is important. Right now, we do not know how it will be done, but collecting CV data needs to be done. The original objective of CCV is the idea of a central data repository that many stakeholders can use; it has a lot of merit. We have not achieved that objective but we see the value in this.

The number one reason new subscriber join the CCV is to extract data from the CCV and load it into their own systems. We do not want to give these stakeholders access to the whole GMS, but that component could be accessible so that they can add or extract data. It is a priority to consider once we understand how we would do it, if we can afford it and under what circumstances it would be allowed.

The issue with CCV is that there are so many different template versions with information to be collected, so users need to update so many different templates and this is time-consuming. So yes, part of the grants management process is the data collection from the CCV, it does not have to be like that in the future, but that is the current function. In terms of allowing others to access it, we see the merit in that in principle, but we would have to figure out if we would have contractors move to the new system with us or not.

Question 26. Follow up question: What is the relationship between institutions, applicants, and agencies? All the same or different?

Answer. We have a relationship with both the institution and the applicant. The institutions have collective agreements with the applicants that can vary. It is the same in the sense that institutions generally sign a collective agreement or Memorandum of Understanding (MOU) with the agencies, which outlines policies and expectations on their part. Institutions also sign off on applications from applicants before we get them. When someone gets a grant, we do not give it to him or her; we give it to their institution. Our real relationship is to the institution, <u>who then provide the grants to the applicants. Generally, all three agencies have the same agreements with the institutions; however, it is different in some respects. (e.g. eligible institutions are different for each agency; CIHR accept hospitals, while NSERC does not). Some programs directly support institutions and not individuals.</u>

Question 27. Of the people who apply for grants, how many are first time applicants or one-time applicants?

Answer. There are different types of applicants: serial applicants, new applicants coming in, and in-and-out applicants (delay of 5-10 years between applications). We do not have metrics on the proportion of each group. Accessibility is critical, as some applicants are more experienced in the application process and receive more grants “more privileged” we need to make sure there is fair access to everybody. We do not want anyone to see this as a barrier to access to grants.

Question 28. Follow/up question: Funds given to many different institutions/people?

Answer. Funds are given to one organization. However, institution's eligibility varies among the agencies. See question #26

Question 29. Follow up to earlier question: If given the opportunity to see into what other country grants work are doing in similar areas, would that be of interest?

Answer. Yes, we would be interested to hear some of the implementations that have been done that are similar to see any of the challenges they have faced and how they were resolved.

Question 30. Can you elaborate on your goals and challenges regarding continuous learning?

Answer. We mentioned that reviewers could also be applicants. There can be obvious situations of conflict of interest. We want to educate them on different policies. The system will need to be able to create modules, monitor and track courses completions, evaluate reviewers and potentially staff. We want to make sure that people who are reviewing grants understand what they are being asked.

Question 31. Will Canada provide the user journey maps mentioned today to vendors?

Answer. Yes, we are open to sharing them, as discussed previously with the business processes. It is just about figuring out when we would do that.

Question 32. What role will analytics play in understanding the journey of researchers applying for grants?

Answer. As scientific agencies, we are big on making decisions based on data. From an evaluation perspective, we need to be able to mine data, and get certain statistics (i.e. approval rates). We have an analytics team who need this data in order to answer specific questions related to the data.

Question 33. Are we going towards AI or data warehouse approach?

Answer. Open to either. For example, CIHR has recently moved to a Business Intelligence (BI) tool to support analytics, and the analytics team does a lot of their analysis in "R". We have talked about a data warehouse, and we are open to hearing about that as well. We likely need to evolve from where we are now. We are interested in data mining to understand the researchers and for reporting purposes. Program design is driven by numbers, e.g. when do the researchers apply relative to the deadline, is there a relationship with the success rates and when they apply?

Question 34. Given the approval to proceed, does Canada have a specified approved budget for this project? If yes can you provide that detail?

Answer. No approved budget yet. We do not have a bottomless pocket either. We need to go to Treasury Board for approval. The budget will depend on scope and scale. This is why we are doing our due diligence now, to be able to figure out what we will have to request as a budget. We will have to be diligent about the budget, as every dollar we spend on this will be money that does not go to research.

Question 35. How is this project related to Enterprise Grants and Contributions System (EGCS) initiative started a couple of years ago implemented by TBS?

Answer. We are currently in talks with the Office of the Comptroller General (OCG) to understand how our information model will align. The alignment is critical. We are open in understanding what the different alternatives available to us are.

Question 36. Can you please address how this initiative aligns with the overall Canadian IT strategy? What role will others outside this Tri-Agency group will play?

Answer. We will need to align with the information architecture of Canada's digital strategy. We will have to go to Treasury Board's architectural review board, to ensure that we align with the principles. If we are deviating from standards, we will have to have a strong justification as to why we are doing that, e.g. if we don't follow the cloud-first principle. The Government of Canada has rules and restrictions that we will have to respect, e.g. security rules established by the Canadian Centre for Cybersecurity. SSC may provide input. Total cost of ownership will be another factor considered in evaluating solutions.

Question 37. Being that there are some programs that have multiple research teams from different institutions, how are the finances distributed? To the principal investigator or between the different institutions?

Answer. There is always one primary institution who administers the funds to the partners, and reports on the use of funding. The funds in some funding programs can go directly to an individual, hospital, not-for-profit organization, etc.

Question 38. Would you articulate this initiative as a business transformation or an IT transformation or both?

Answer. We would describe this more as a business modernization initiative as we will be looking to both optimize our processes and where possible and practical to harmonize these across the three agencies. At the same time, we recognize the importance of modernizing our technology to take advantage of new technology. The Change Management component is also an important aspect of TGMS as there will be changes to both what we do and how we do it. We do not see transforming our overall business to meet a new technology.

Question 39. What are your thoughts about the legacy data which need to be imported into the new applications? Past approved/denied grants? Some/all underlying activities?

Answer. Data migration will be a big part. There will be a cost to migration. Data quality is an issue for us. Some data will need to be migrated to the new solution, some data might need to be migrated to a data warehouse for the purposes of analytics. Currently, data is structured around a grant, as opposed to a person. As well, there is currently no way to tell from a large piece of data, which parts are actually worth keeping. Data may need to be cleaned first. We will look into managing trends vs. managing active competitions. That will play an important role in that decision.

Question 40. Financial and reporting system integration are typical in grants systems. Does Canada have a favored integration & reporting approach?

Answer. The Tri-agencies are currently using Freebalance, but we are going to SAP as part of a government wide mandate (expected completion: 2021)

Question 41. Is the project monolithic under a single implementation? Or each agency (CIHR, NSERC, SSHRC) projects implement separately but share common functionalities?

Answer. At this point in the initiative, we are open to all suggestions. Costs are closely tied to it, so it will be kept in consideration. We are open to considering the benefits of both. Ultimately, the institutions work with all of us. Many researchers apply to more than one agency. A user-centric approach will be kept as a principle in this decision-making.

Question 42. Have you looked at The Fonds de recherche du Québec – Santé (FRQS) experience?

Answer. The FRQS are part of the CCV Board of Directors and have offered their implementation plan for their grants management solution. In addition, we have engaged with the Canada Foundation for Innovation (CFI) on their grants management solution project. It should also be considered that Quebec has different requirements than we do though.

Question 43. How do we communicate going forward?

Answer. If you would like to request a one-on-one meeting, please contact the Contracting Authority. These meetings will be taking place between September 4 and September 16, 2019 (estimated). Please refer to Annex B from the TGMS-SGSTO Buy and Sell page for additional details regarding these meetings. You may also direct any questions here.
The Contracting Authority may be contacted at:
Phone: (819) 639-0671
Email: Heather.Wilson@tpsgc-pwgsc.gc.ca

B. Additional Questions and Answers

Question 44. During the industry day, there were a number of times when answers touched on the idea of multiple vendors joining together in a joint solution. My question is: will Canada distribute to all attendees a registration list of attending companies and contacts? This would help facilitate and accelerate awareness of interested parties for potential joint approaches.

Answer. Below is the list suppliers who attended the Industry Day. Canada is unable to release individual contact information of suppliers. Suppliers may voluntarily join the "TGMS-SGSTO" Tri-Agency Grants Management Solution (TGMS) Initiative (EN578-200468/A) - List of Interested Suppliers subject to the terms of use set out therein.

Accenture
Acumen Solutions Inc.
Adobe
Akuting
Appian
Avanade
CSDC Systems Inc.
Deloitte
Eperformance inc.
eVision Inc.
Fundingportal
Infosys Public Service
Integra Networks Corporation
Jumping Elephants
KPMG
Lenovo Canada
Lenovo Global Technologies
MNP LLP
Open Text Corporation
Oracle

Pitney Bowes Software Canada
PricewaterhouseCoopers
Raymond Chabot Grant Thornton Consulting Inc.
REI Systems, Inc.
Researchfish
Salesforce
SAP Canada
Sierra Systems