RSO Tips for Successful JELF Proposal Development

Based on information that we have gleaned from our Analysis of Reviewer Comments for UofA JELF Proposals that was carried out using the reviewer comments from all UofA CFI JELF proposals that were submitted to the CFI between Oct 2017 to Oct 2019 along with our experience in guiding researchers through the proposal development process and the information provided by the CFI in both the CFI Policy and program guide (2019) and the CFI JELF Guidelines for Completing a Proposal (2021) (JELF Guidelines), we have compiled some tips and recommendations to assist with development of JELF proposals.

In addition to the recommendations described here the RSO appoints a dedicated Contract Specialist to work with each applicant, hosts a JELF information session and provides a detailed information package, including a proposal development template based on the JELF Guidelines, to all newly approved JELF applicants at the outset of the process.

General Recommendations

a) Read the JELF Guidelines – this document contains a wealth of information regarding what the CFI is looking for and should be referenced often during proposal development.

b) Read the CFI JELF Guidelines for Reviewers (2021) (The Reviewer Guidelines) – this is the information that the CFI will provide to the expert reviewers who will be scoring your proposal in order to encourage consistency between reviewers. There are specific points to the reviewers regarding what they should look for, and what should be considered as a deficiency in the proposal.

c) Ensure that your proposal includes sufficient information to stand alone – do not expect reviewers to consult external references, and hyperlinks are not allowed – The Reviewer Guidelines state "It is incumbent upon the applicant to demonstrate in the proposal how the project satisfies each criterion and it should therefore be the sole information source upon which you base your review."

We have seen comments from reviewers to the effect that a proposal "lacks references". We have discussed this with the CFI and understand that what is meant by this comment is that the reviewer noted that there was insufficient information provided to substantiate the claims that are being made, it does not mean that a formal bibliography should have been included. This is not a specific requirement, and would not on its own be the reason for a project to not be funded. There is no space set aside for a bibliography, so inclusion will necessarily remove space that could be used for other information. If you think that previously published or preliminary data is needed in order to substantiate your claims or to provide necessary background, it should be described within the text, and brief format citations within the text are sufficient. Although they are free to do so, reviewers are not required to consult additional literature outside of the proposal itself.

Assessment Criteria:
As described in the JELF Guidelines, proposals are evaluated based on standards related to the following five assessment criteria:
- Research or Technology Development
- Researchers
- Infrastructure
- Institutional Commitment and Sustainability
- Benefits to Canadians

Each assessment criterion will be evaluated against a standard. Each criterion includes aspects that must be addressed in the proposal. Failure to adequately address any of the required elements will significantly weaken the proposal. Expert reviewers and/or expert review committees will be asked to rate the degree to which the proposal meets each standard.

Each criterion should be addressed in the proposal in the order in which they appear below. The RSO will provide

a proposal development template that can be used to develop the proposal in the proper order. The specific criteria standards have been taken directly from the JELF Guidelines.

1. Research or Technology Development standard:

> *"The research or technology development activities are innovative, feasible and meet international standards.*
> - *Describe the proposed research or technology development activities conducted in an area of institutional priority.*
> - *Demonstrate the innovativeness and feasibility of the proposed activities by positioning them within the international context, describing the proposed approach and including references."*

a) Include specific detail when discussing the research plan

The steps to execute the research activities that are planned should be outlined, and we recommend also including information about the anticipated timeline for achieving expected research milestones. The roles of the lead applicant and co-applicant(s) (if applicable), as well as specific roles that HQP will have in the project, should also be clearly outlined. Enough detail needs to be presented about the research activities to enable an expert reviewer who is familiar with the research field to be able to assess that the research activities are feasible.

b) Ensure that the importance of the research activities to the institution is made clear

The CFI expects applicants to identify why their research activities are important to the institution. The University of Alberta Strategic Research Plan for CFI/CRC/CERC outlines the University of Alberta's strategic research goals. We also recommend that applicants consult with their department and faculty to obtain information how the applicants' research fits with research priorities.

c) Position research activities in a national/international context

The CFI expects applicants to describe what other researchers in their research field are doing, and to discuss how their research approach is similar/different from what other researchers are doing. Failing to present sufficient information about the international context for the proposed research activities can lead to reviewers questioning if applicants have a clear understanding of what others in their field are already doing, which can lead to concerns about whether the research activities represent world-class research that is sufficiently innovative to merit funding.

Similarly, if it is known within a field that there are groups with different points of view on things like methodology, it is a good idea to mention this and to provide a brief justification for why the approach presented in the proposal has been chosen.

d) Ensure that the research plan is scientifically sound

The RSO is not in a position to comment on the veracity of the research plan presented. We recommend that applicants share their proposals with their faculty or department research offices and colleagues who are in a position to comment on the scientific quality of the proposed research.

e) Acknowledge risks that could lead to research plan not proceeding as expected

The CFI is a risk-based organization. This means that they are not necessarily risk-averse, but they do expect proposals to include acknowledgement of key risks and a strategy to mitigate those risks. If the reviewers assess that there are risks to the project that have not been addressed, they may have concerns about the feasibility or ability to implement the project, leading to a lower score. We recommend acknowledging any risks that could lead to the research activities potentially not proceeding as expected, and outlining mitigation strategies that will be

undertaken to reduce the identified risk.

2. Researchers standard:

> *"The researchers demonstrate excellence and leadership at a level appropriate for the stage of their career. The researchers have the expertise or relevant collaborations to conduct the research or technology development activities.*
> - *Describe the researchers' track record, including scientific and technical expertise relevant to conduct the proposed activities.*
> - *Describe the collaborators' and partners' contributions essential to the success of the proposed activities."*

  a) Outline expertise of the lead applicant and co-PIs (if applicable)

Background information about expertise needs to be sufficient to convince reviewers that the applicant(s) have sufficient expertise and background to carry out the project.

A JELF project might involve collaborative research activities that are being undertaken by a group of researchers or might involve independent research activities requiring a common infrastructure item that will be shared by a group of researchers. If the latter case, then why each of the co-applicants have sufficient expertise to be able to use the infrastructure item will need to be explained.

  b) Only discuss expertise of applicant/co-applicants that is directly relevant to the project

Not all of the information that is shown on the CVs of the applicants/co-applicants needs to be described. The focus should be placed on discussing the expertise of the lead applicant and any co-applicants that is directly relevant to the research activities/capability of the applicants to use the requested infrastructure.

  c) Outline roles of collaborators and partners

Collaborators and partners should be identified who will be contributing to the success of a project, discuss how the collaborators and partners will benefit, and discuss how collaborations will benefit the project. We recommend being specific when identifying collaborators, identifying the collaborators by name where possible – ensuring, of course, that the named collaborators are aware of their involvement in the project. If the collaborations/partnerships are more tentative or vaguely described, then reviewers might raise concerns.

  d) Ensure applicant(s) CVs are up to date; acknowledge any gaps in CV

The CV of the Project Leader, and CVs of co-applicants (if any) should be up to date. If a CV appears sloppy (e.g., incomplete, or not sufficiently up to date), then this can leave a negative impression with the reviewers. If there are gaps in an applicant(s) publication record, then we recommend acknowledging them in the Researchers section and providing a brief explanation.

3. Infrastructure standard:

> *"The infrastructure is necessary and appropriate to conduct the research or technology development activities.*
> - *Describe each item and justify its need to conduct the proposed activities. For construction or renovation, provide a description of the space including its location, size and nature. Use the item number, quantity, cost and location found in the Cost of individual items table. Provide a cost breakdown for any grouping of items.*
> - *Explain why existing infrastructure within the institution and the region cannot be used to conduct the proposed activities.*

Note: For construction or renovation, a detailed cost breakdown, timeline and floor plans must be provided in a separate document as part of the Finance module."

a) Avoid focusing on discussing 'novelty' of requested infrastructure items

It is a common misconception that the CFI expects that equipment items should be the latest-and-greatest technology. The CFI has stressed in their communications that the innovative qualities of the research activities that are carried out using the infrastructure should be the main focus of the proposal. It is not expected that the infrastructure itself necessarily must have innovative/novel qualities.

b) Outline the needed functional capabilities for each infrastructure item

The CFI's expectation is that the functional capabilities of each of the requested infrastructure items are described in detail, and that a justification is provided to explain why each item is needed to successfully execute the research activities described in the Research or Technology Development section of the proposal. If a budget line item consists of a grouping of items, the CFI requires that a cost breakdown is provided. Reviewers are asked to assess whether the cost of each of the budget line items appears to be reasonable and must depend on the budget justification to be able to understand the basis for the cost of each of the budget lines. Occasionally reviewers have assessed that the costs of budget lines appear to be potentially high/inflated, which can negatively impact the funding decision.

c) Identify if similar infrastructure is available and justify duplication

The CFI expects applicants to assess whether infrastructure that is similar to what they are requesting is already available. If similar infrastructure is available, then applicants are expected to provide a justification for any duplication of already-existing infrastructure. The depth and breadth of the assessment for similar equipment will vary depending on factors such as the cost of the equipment item, how commonly it is found elsewhere on campus, etc.

There have been previous cases where UofA JELF proposals were rejected specifically because the reviewers felt that the infrastructure being requested appeared to unnecessarily duplicate items that were already available at the UofA, and which appeared to be underutilized. This has happened even in projects that the reviewers had assessed as having a research plan was feasible and innovative.

d) Description of space, floor plan, cost estimate, timelines for renovations

Facilities & Operations (F&O) will set up a meeting with you to review the allocated space and the potential requirements and estimated costs for any modifications to the space to allow you to effectively use the equipment that is being requested. Any drawings, timelines and detailed cost breakdown will be provided by F&O.

4. Sustainability:

> *"The infrastructure is optimally used and sustainable through tangible and appropriate commitments over its useful life.*
> - *Present a management plan that addresses the optimal use (e.g., user access and level of use), and the operation and maintenance (O&M) of the infrastructure.*
> - *Provide detailed information on O&M costs and revenue sources, including institutional commitment. Refer to the Financial resources for operation and maintenance tables."*

NOTE that this section used to be where the relationship to institutional strategy was described. This has been moved to the Research or Technology Development section.
The "institutional commitment" mentioned in the criterion standard refers to any financial or other support towards

the O&M of the equipment, as required to ***keep the equipment in a state of readiness for research***. The CFI IOF funding can be included in the institutional commitment section.

    a) <u>Present a well-thought-out plan that will ensure that the infrastructure can be sustained in an operational state throughout its useful life</u>

For guidance about what to consider to develop a strong Operations and Maintenance (O&M) budget, the RSO has developed a [Reference Guide: CFI JELF Operations and Maintenance (O&M) costs and revenue](#). Please review this document as you develop this section.

<u>Benefits to Canadians:</u>

> ***"The research or technology development results will be transferred through appropriate pathways to potential end users and are likely to generate social, health, environmental and/or economic benefits to Canadians, including better training and improved skills for highly qualified personnel.****
> - ***Briefly describe potential socio-economic benefits, including better training and improved skills for highly qualified personnel.***
> - ***Delineate the knowledge mobilization plan and/or technology transfer pathways, including partnerships with end users.***

*Highly qualified personnel include technicians, research associates, undergraduate students, graduate students and post-doctoral fellows."

    a) <u>Outline short-term and long-term benefits of the research activities</u>

The CFI expects that applicants are able discuss the potential social, economic or health benefits for Canadians. Both short- and long-term plans for disseminating the knowledge that is gained through the research should be described. More concrete outcomes are expected for applied/translational research, and accordingly a detailed knowledge mobilization/technology transfer plan that presents is critical.

    b) <u>Discuss how HQP would be involved in and will benefit from the project</u>

Be specific in your description of how highly qualified personnel (HQP), such as students and postdoctoral fellows, will benefit from the project. For example, specify:
- what role HQPs would play in the project and describe
- how HQPs would be involved in executing the research plan
- any unique opportunities that the project will offer to the HQP
- what kinds of careers HQP will be trained for
- how having access to the infrastructure will offer benefit.

We also recommend discussing how Equity, Diversity and Inclusion (EDI) practices will be implemented as the research activities proceed, and discussing what the anticipated results or impact will be as a result of implementing EDI practices. For more information and guidance on this, please visit [the UofA's Strategic Plan for Equity, Diversity and Inclusivity](#).