**CFI-JELF Reviewer Comments**

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| Criteria | **Proposal Strengths** | **Proposal Weaknesses** |
| Research or technology development | -Research is innovative and feasible -Activities are of highest calibre by international standards-appealing mix of foundational research and research with applied angle, well-founded in theory and previous findings, is hypothesis driven and logically builds on each other. -long and short term objectives are well defined-Timely topic of large interest to broader community- Keeps Canada abreast of technological developments- Well-positions the University in research and fits seamlessly with Strategic Plan- Will foster productive collaborations- PI has clear expertise in the field-Experiments are well hypothesized and described-Outcomes proposed will be of high scientific value, nationally and internationally-Method is well-designed and will be unique to area-Uses cutting edge, complementary methods and combines them in a powerful approach | - Not a new idea, lacks novelty and distinction from what is being done elsewhere - Would have appreciated perspective from North America and internationally as well. Do other institutions have this equipment?- Missing some key recent citations relevant to research in this field, take into account recent advances in field.- Proposal glosses over the challenges- Show some preliminary data- Proposal lacks tech-economic analysis- Quantitative descriptions, not just qualitative- Overly ambitious- Lack of clarity of objectives- A proposal which seems quite vague (without real metrics or figure of improvement)-Project goes in many directions and needs more focus. Design a more precise hypothesis in one of these areas.  |
| Researchers | - PI is innovative, productive & collaborative and expertise aligns very well with proposal- PI has appropriate industry/academic collaborators, covering all relevant specializations needed for the investigation- PI has a good record of publications- PI has an excellent track record securing funding- PI has evidence of receiving and finishing projects from similar agencies-PI has experience working with equipment providers.-A solid team of researchers with appropriate expertise to conduct the proposed work. -Researchers have demonstrated publication records and networks for disseminating information to producers, industry, stakeholders and government agencies.-Collaborators will ensure success of the project | - How are collaborators important to the proposed work and use of the technology?-There isn’t a collaborator listed in that particular area of research. Tying two objectives to that area is too risky. - Specify the PI’s prior training on the equipment- Selective contributions making a deep impact are a better indicator than gross numbers- Team has no experience with the equipment |
| Infrastructure | - Functions and unique features of the requested infrastructure have been clearly described in the proposal. Vendors are highly reputed, appropriate cost and accessories.-Equipment is well detailed and sufficient to handle the proposed research, and can be added on to at a later date if needed- Provided reasons why the existing infrastructure within the institution and the region cannot meet the research needs of the applicant's program- Facilities and resources that this team has access to is very strong- Other researchers will have access to the infrastructure and there is a plan outlined to implement this-Request for extended warranties is appropriate and justified.-All requested pieces of equipment are necessary and fill a critical infrastructure gap at UG. | - Did not propose the most efficient use of the suggested equipment.- Link equipment to specific needs and how it will be used in specific projects- Equipment appeared to be a general wish list for setting up a new research laboratory- Why does this equipment cost so much? Justify.- Need more information regarding the long-term use of the requested equipment and the long-term development of the research program-*Since equipment is unique* *to Canada*, should other researchers be encouraged to be trained and use the equipment? Risk is high if only one person has access and depends on grants for O&M. National and international collaborations should be established mid-project.-Unsure how main project theme relates to the requested equipment.-The need for the ‘xyz feature’ was not completely justified |
| Sustainability | - Equipment will be used by many graduate students and/or post-doctoral researchers- PI should be commended for outlining important safety considerations- Addressed the operating and maintenance needs of the infrastructure and the sources of funds support these costs -plans are detailed and realistic and identify lifespan of equipment-plan to operate the equipment is sustainable, with appropriate costs built into the proposal to ensure that it will remain functional | - Lacks experience in managing specialized instrumentation such as that described in this proposal -The management, operations and maintenance plans rely almost exclusively on one individual and do not include a back-up for what happens if that individual is not available. Have 2 people full trained.- Recommend consideration of upper-end vehicles because in the long run they often turn out to be less expensive-Should a technician be trained to handle this equipment on a long-term basis? Not mentioned. |
| Benefits to Canadians | - The research would encompass current knowledge and advance this knowledge- It would train future scientists in these innovative and cutting-edge procedures- The research techniques would also improve evidence-based best practices- Knowledge transfer & dissemination strategies are adequate.- Has the potential to contribute to increased economic activity- The results derived from the proposed research will influence policy-making-Benefits to Canadians are manifold-PI is engaged in community outreach, which is a major strength.-Impressed by ability to contribute research findings in a societal context.-Will be optimally used: a# graduate students and b# undergraduates will use the equipment over the 5 year project. | -It is doubtful whether the work proposed will contribute meaningful socio-economic benefits to society as the experiments are incremental in nature-Project should have impactful research outcome and deliverables that will improve and benefit Canadian society at many levels-Need more information about how this equipment will result in the training of HQP- Peer reviewed scientific articles should not be the main avenue for communication, an additional dissemination plan should be worked out to reach end-users (who do not read scientific articles)- Lack of understanding of the previous work in the field - Lack of detail on how the proposed instrument would be used to accomplish the goals.-Outline the level to which trainees might be expected to publish their work/present at workshops, or to what extend they will be offered first authorship should they achieve appropriate standards to do so |
| General comments | - The proposed research meets the current and emerging trends in the industry in Canada and globally, which will support the sustainable growth of this sector-A well-rounded proposal on all accounts. The proposed research lives up to the expectation of “I” for “Innovation”. The research ideas are well linked to the infrastructure demands, with tangible benefits to Canadians. | - Need clear activities and deliverables, which would provide more insight in the feasibility of the work- This project lacks novelty and is not cutting edge- Do not see enough evidence about the scientific soundness of the approach |