

OPEN SCIENCE FUND APPLICATION GUIDE: EXAMPLES AND CHECKLIST

In this document, you will find:

- Eligible Open Science Fund Examples
 - Within-Discipline Examples
 - Cross-Discipline Examples
 - Community-Partnered Examples
- Improvable Open Science Fund Examples
- Proposal Checklist

ELIGIBLE OPEN SCIENCE FUND EXAMPLES

WHAT THESE EXAMPLES ILLUSTRATE

- Projects add an open science layer to existing research, rather than funding new research.
- Strong projects create reusable tools, workflows, or governance, and build capacity that benefit UCalgary and broader communities.
- The examples below include within-discipline, cross-discipline, and community-partnered projects to show the full range of eligible work. They use plain-language labels for disciplinary area and UNESCO-aligned pillars.

DISCLAIMER: These examples are NOT based on real applications! They are intended for illustrative purposes only and do not indicate the types of projects that will or will not be funded.

WITHIN-DISCIPLINE EXAMPLES

These examples show projects where the open science activity is embedded within a single discipline or field. The team members share a disciplinary home, and the outputs serve their immediate research community. Projects may involve multiple labs, institutions, or career stages.

Standardizing a Widely Used Research Model Across Labs

Area: Health / Biomedical Science

Team composition: Professor, Research Scientists, and Postdoctoral Fellows

Project: A biomedical research team working within an already funded mouse-model program sees that labs prepare, validate, and report the model in inconsistent ways, making findings hard to compare or reproduce. They use funding to convene a short working group of model users, create openly available standard operating procedures and reporting checklists, and produce a visual methods guide that can be shared through an open repository. The fund supports coordination, documentation, and media production rather than new experiments. The result is a reusable toolkit that improves reliability across labs and gives trainees a concrete model for transparent methods sharing.

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Relevant pillars: Open Scientific Knowledge; Open Infrastructure;

Community support letter(s): No.

Helping Health Researchers Adopt Transparent Research Practices

Area: Health Research / Biostatistics

Team composition: Research Managers, Research Staff, and a Graduate Student

Project: A health research group realizes that practices such as study preregistration, analysis documentation, and data-sharing preparation are handled unevenly across projects and trainees. They use funding to review current workflows, develop templates and checklists, and run a short internal training series with support from a statistician and a graduate student. The fund covers trainee time and workshop materials rather than new data collection. The result is an openly shared package of tools and lessons learned that helps other research groups build more transparent and reproducible workflows while strengthening open-science literacy within a defined research community.

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Relevant pillars: Open Scientific Knowledge; Open Infrastructure;

Community support letter(s): No.

Open Portal for Storing and Sharing Experimental SOPs in Biomedical Engineering

Area: Engineering

Team composition: Engineer and Postdoctoral Fellow

Project: A biomedical engineer has developed a new diagnostic device for bacteria and now requires a growing bacterial culture for further testing. However, no one on the team has experience or in-depth knowledge of bacterial culture techniques. The team attempts to follow growth protocols from published articles, but these methods underperform. The engineer proposes using Open Science funding to develop a departmental portal for sharing experimental protocols. The portal would include version tracking and allow department members to access, comment on, and suggest improvements to protocols. The funding supports the development of the portal and enables community feedback, rather than directly optimizing experimental methods. The result is a new model for sharing and improving methodological knowledge within the institution.

SELECTED APPLICATION GUIDANCE

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Relevant pillars: Open Scientific Knowledge; Open Infrastructure;

Community support letter(s): No.

Open Replication Archive for Experimental Economics

Area: Economics / Social Science

Team composition: Economics Professor and Graduate Research Assistants

Project: An experimental economics lab has produced several years of behavioural experiments, but the data files, analysis scripts, and experimental instructions are stored inconsistently across lab members' personal drives with no standardized documentation. Other economists requesting replication materials receive ad hoc file packages that are difficult to use. The team uses the funding to build a structured replication archive with standardized file organization, documented codebooks, and version-controlled analysis scripts hosted in an open repository. The fund supports a graduate research assistant to clean and document the backlog and develop templates for future experiments. The result is a reusable archiving workflow that the department can adopt, making replication straightforward for the broader experimental economics community.

SELECTED APPLICATION GUIDANCE

Relevant pillars: Open Scientific Knowledge; Open Infrastructure;

Community support letter(s): No.

CROSS-DISCIPLINE EXAMPLES

These examples show projects where team members from different academic disciplines collaborate to build open science practices that benefit multiple fields.

Making Environmental Data Shareable and Reusable

Area: Environmental Science

Team composition: Climatologist, Librarian, and Ecologist

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Project: A researcher studying local water systems and ecosystems is already generating valuable data, but the files, metadata, and documentation are not organized in a way that makes them easy for others to find or reuse. The researcher partners with a librarian and a colleague in a related field to build a practical data-sharing workflow, including metadata templates, file-organization standards, and short training materials for others in the field. The fund supports a research assistant and a workshop series rather than additional fieldwork. The result is an open, reusable data-management model that benefits researchers, environmental organizations, and external partners who need usable evidence.

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Relevant pillars: Open Scientific Knowledge; Open Infrastructure; Open Engagement

Community support letter(s): No.

Shared Neuroimaging Data Standards Across Psychology and Neuroscience

Area: Psychology / Neuroscience

Team composition: Cognitive Psychologist, Neuroscientist, and Data Librarian

Project: A cognitive psychology lab and a neuroscience lab both collect functional MRI data but use different file formats, naming conventions, and preprocessing pipelines, making it impossible to pool or compare datasets across studies. They partner with a data librarian to adopt and implement the Brain Imaging Data Structure (BIDS) standard for their shared imaging facility, creating conversion scripts, metadata templates, and a short training guide for new lab members. The fund supports a research assistant to convert legacy datasets and run validation checks rather than new scanning. The result is a shared, BIDS-compliant data infrastructure that enables cross-lab analysis and positions both groups to meet emerging funder requirements for open neuroimaging data.

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Relevant pillars: Open Scientific Knowledge; Open Infrastructure;

Community support letter(s): No.

Open Annotation Standards for Digital Literary Archives

Area: English / Digital Humanities / Arts

Team composition: Literary Scholar, Digital Humanities Researcher, and Data Librarian

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Project: A literary scholar studying Canadian prairie literature has digitized a substantial collection of annotated manuscripts, marginalia, and correspondence, but the annotations are stored in proprietary formats that only the researcher's own tools can read. A digital humanities colleague and a data librarian partner to convert the annotations to an open, interoperable standard (such as the Web Annotation Data Model), build documentation for the workflow, and create a short guide so other humanities researchers can adopt the same approach for their own archival collections. The fund supports the conversion work, documentation, and a workshop for humanities faculty rather than new archival acquisition. The result is a reusable annotation workflow that makes literary research outputs findable and interoperable across digital humanities projects.

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Relevant pillars: Open Scientific Knowledge; Open Infrastructure;

Community support letter(s): No.

COMMUNITY-PARTNERED EXAMPLES

These examples show projects that involve partners outside the university—community organizations, government agencies, Indigenous communities, or local knowledge holders—working alongside university researchers to build open science practices that serve both academic and public needs.

Co-Designing Data Sharing Protocols with an Indigenous Community Partner

Area: Health / Indigenous Research / Community-Engaged Research

Team composition: Health Research Team, Indigenous Engagement Specialist, and Indigenous Community Members

Project: A researcher working in an ongoing Indigenous-partnered health program wants to improve openness without undermining community ownership, governance, or decision-making over the data. The team works with the community and relevant campus partners to co-develop data-sharing protocols, consent language, access pathways, and guidance that reflect community-governed access and Indigenous Data Sovereignty principles. The fund supports consultation, honoraria, and a small forum to document and refine the process rather than the research itself. The result is a practical guide

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that other University of Calgary teams can adapt when navigating open science in Indigenous research contexts.

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Relevant pillars: Open Engagement; Other knowledge Systems;

Community support letter(s): Required.

Open Municipal Policy Comparison Tool

Area: Political Science / Public Policy / Social Science

Team composition: Researchers and Municipal Staff

Project: A political science team studying municipal policy finds that comparable information on bylaws, subsidies, and local interventions is scattered across council minutes, registries, and reports in inconsistent formats. They partner with municipal staff to build an open, structured database with a documented coding framework that allows users to compare policy approaches across jurisdictions. The fund supports a research assistant, database development, and consultation with end users rather than new primary policy research. The result is reusable infrastructure that supports scholarship on policy diffusion while giving municipal staff and community organizations a practical tool for learning from other jurisdictions.

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Relevant pillars: Open Scientific Knowledge; Open Engagement; Open Infrastructure;

Community support letter(s): Likely not.

Community-Accessible Oral History Archive Workflow

Area: Humanities

Team composition: Historian, Graduate Student, and Community Representatives

Project: Historians and public history researchers studying Alberta's oil boom-and-bust cycles have collected oral histories from workers, family members, and community residents and stored them in a format for researcher access and analysis. However, the materials are difficult for community members to access because the transcripts, permissions, and descriptive metadata were not designed for public reuse. They partner with a community archive and accessibility specialist to create a workflow for transcript cleanup, metadata standards, plain-language summaries, and community-informed access

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decisions for recordings and transcripts that can be shared. The fund supports accessibility services, partner consultation, and repository preparation rather than new interviews. The result is a reusable model for making Alberta history research outputs legible and accessible beyond the university while respecting context and consent.

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Relevant pillars: Open Scientific Knowledge; Open Engagement; Other Knowledge Systems

Community support letter(s): Likely required.

Developing Tools for Multilingual Collaboration

Area: Anthropology

Team composition: Anthropologist and Local Scholar

Project: An anthropologist conducts fieldwork on oral traditions among Indigenous people of Peru. She collaborates with a non-English-speaking local scholar whose cultural understanding and expertise is essential. However, most research materials are in English, which limits the contributions of local scholars. The anthropologist proposes using Open Science funding to partner with an experienced translator and software developer to develop a set of multilingual standardized research templates and to adapt open-source tools to allow instantaneous, multilingual transcription and translation to enable the local scholar to contribute. The funding supports the costs of translation and the adaptation of the open-source tools. The result would be a reusable model for multilingual collaborations and inclusion of marginalized scholars.

SELECTED APPLICATION GUIDANCE

Relevant pillars: Open Scientific Knowledge; Other Knowledge Systems;

Community support letter(s): Required.

IMPROVABLE OPEN SCIENCE FUND EXAMPLES

WHAT THESE EXAMPLES ILLUSTRATE

- These examples illustrate projects that require improvement and explain how they can be strengthened to meet eligibility criteria.

DISCLAIMER: The proposed solutions are illustrative only. They represent some possible approaches, NOT ALL OPTIONS, and should not be treated as prescriptive guidelines for designing a project.

Expanding a Bacterial Fingerprint database

Area: Health / Biomedical / STEM

Project: A group of microbiologists and biochemists developed a database of biochemical growth profiles for common bacterial pathogens in children and hosted it on a public server. Funding for the current hosting arrangement is about to expire due to the end of the original grant. If new funding is not secured, the database will be removed from the public server and will only remain locally accessible to a small number of researchers. The team proposes to extend funding for database hosting and add additional functionalities, with the aim of keeping the database publicly accessible and making it more useful to researchers worldwide.

TIPS FOR SUCCESS

Problem: The proposal is ineligible because it mainly requests funding for ongoing database hosting, which is not allowed under the Open Science Fund. Although it proposes new features, it does not clearly show how these would advance Open Science goals such as reusability, interoperability, or broader community benefit. It also lacks evidence of community engagement or adaptation to shared needs and does not adequately address criteria related to capacity building, sustainability, and impact.

Solution: The proposal should shift from maintaining a database to developing reusable, community-informed open data infrastructure by incorporating FAIR standards, user-driven design, reusable workflows, and training, with clear sustainability and broad research impact.

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Creating connections with immigrant communities

Area: Sociology / Social Science

Project: A sociology research group is conducting a study on the integration of immigrant communities into Canadian society, but the team has limited existing relationships with relevant communities. They propose to organize a meet-and-greet event with immigrant community members to build connections and support future research engagement.

TIPS FOR SUCCESS

Problem: The project is framed as a one-time engagement activity to support ongoing research, which aligns more with general awareness-building and relationship development than with Open Science capacity building. It does not clearly demonstrate how the activity contributes to an Open Science “layer” within the research program, nor does it define reusable, openly accessible outputs or broader community benefits beyond the immediate project.

Solution: The team could reframe the project to develop a reusable, community-informed engagement framework for immigrant community research. Using the event as a pilot, they would co-develop and document workflows and adaptable templates, which would be openly shared for reuse. The grant would support event costs as well as the development and dissemination of these Open Science resources.

Making Knowledge on Election Preference Accessible to all Canadians

Area: Political Science

Project: A study about how the political preferences of Canadians were influenced by social media memes revealed an interesting pattern that researchers think would be important to share with the public. But the study is being published in a top-tier journal in the field, and the researchers cannot cover the Open Access fees (APC). They propose to use the grant to cover the APC, to make the study publicly available immediately, and to create layperson summaries using graphs from the same article to be disseminated on various blogs, websites, and social media accounts.

TIPS FOR SUCCESS

Problem: The proposal is ineligible because it primarily requests funding for APCs, which are not supported under the program. It focuses on making a single article open access and producing lay summaries, which is more aligned with knowledge mobilization than Open Science capacity building. It

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does not improve research workflows or generate reusable, sustainable outputs that benefit the broader research community.

Solution: The team could instead develop a reusable open publishing and dissemination workflow for their research program, including identifying alternative publishing options and clarifying what materials can be shared openly. The grant would support creating these reusable resources and, if needed, legal or policy consultation to enable sustainable Open Science practices.

Creating department-wide equipment map

Area: STEM / Chemistry

Project: Two chemistry scholars want to address the struggles of their graduate students in accessing research instruments not available in their labs. They propose to use the grant to create an inventory of all research-related instruments in the Department of Chemistry hosted on the department website. The database would contain information about the instruments' make and use, location, access information, booking forms, and relevant usage SOPs.

TIPS FOR SUCCESS

Problem: While the project aligns with Open Science principles and would produce a useful, reusable resource, it is not clearly embedded within a specific research program. As described, it functions more as departmental infrastructure rather than an Open Science enhancement to a research workflow.

Solution: The team should connect the project to their research programs by explicitly showing how the inventory improves their research workflows (e.g., reducing access barriers to needed instruments). They could also frame it as a reusable Open Science infrastructure by standardizing and sharing access information and SOPs. The grant would support developing this inventory as a model for infrastructure sharing that could be reused by other research groups.

PROPOSAL CHECKLIST

Does my proposal clearly demonstrate:

1. **Open Science Need and Embeddedness:** a clearly defined need, embedded within an existing research program
2. **Tailoring to Context:** alignment with the specific research program and community
3. **Feasibility:** a realistic scope, timeline, and appropriate team expertise
4. **Capacity Building & Culture:** contribution to Open Science skills, practices, or culture
5. **Benefits, Reusability & Sustainability:** outputs that are accessible, reusable, and valuable beyond the project
6. **Consideration of Communities & Knowledge Systems (*if and where relevant*):** inclusive and context-appropriate engagement with diverse communities, including Indigenous knowledge systems