Catalyst Grant

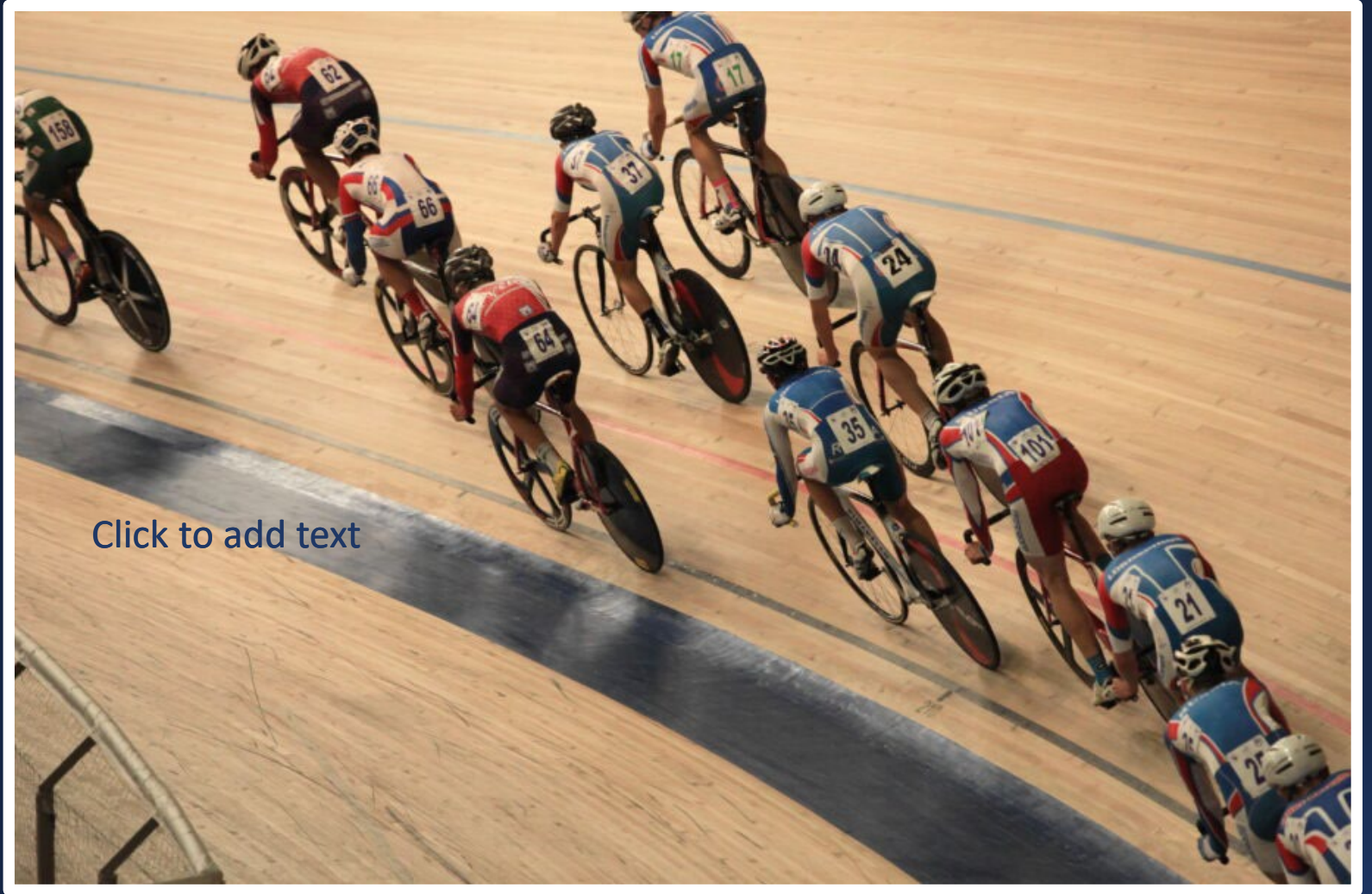**Information Session**

12 May 2022

Dr. Timothy Chan, DSI Associate Director, Research & Thematic Programming

Department of Mechanical & Industrial Engineering, Faculty of Applied Science & Engineering

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Today's Information Session

- [About the Data Sciences Institute (DSI)](#)
- [2022 Catalyst Grant Competition](#)
- [Submission Process](#)
- [Catalyst Grant F.A.Q. / Q&A](#)

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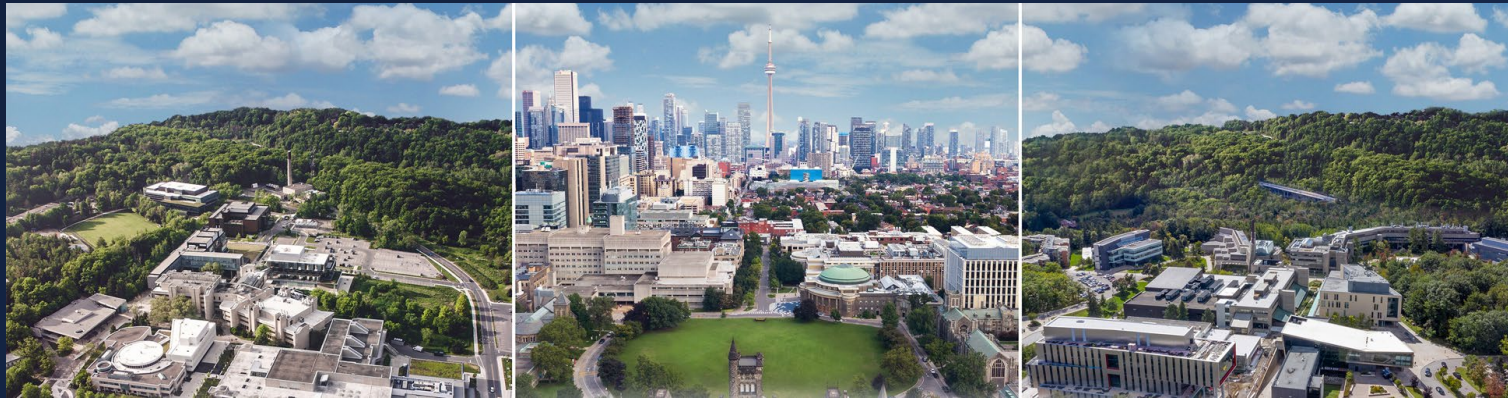
Data Sciences Institute Mission

What is the DSI?

Launched as an Institutional Strategic Initiative in 2021, the DSI is a multi-divisional, tri-campus, multidisciplinary hub for data science activity at the University of Toronto.

What is the DSI's goal?

To accelerate the impact of data sciences across disciplines to address pressing societal questions and drive positive social change.
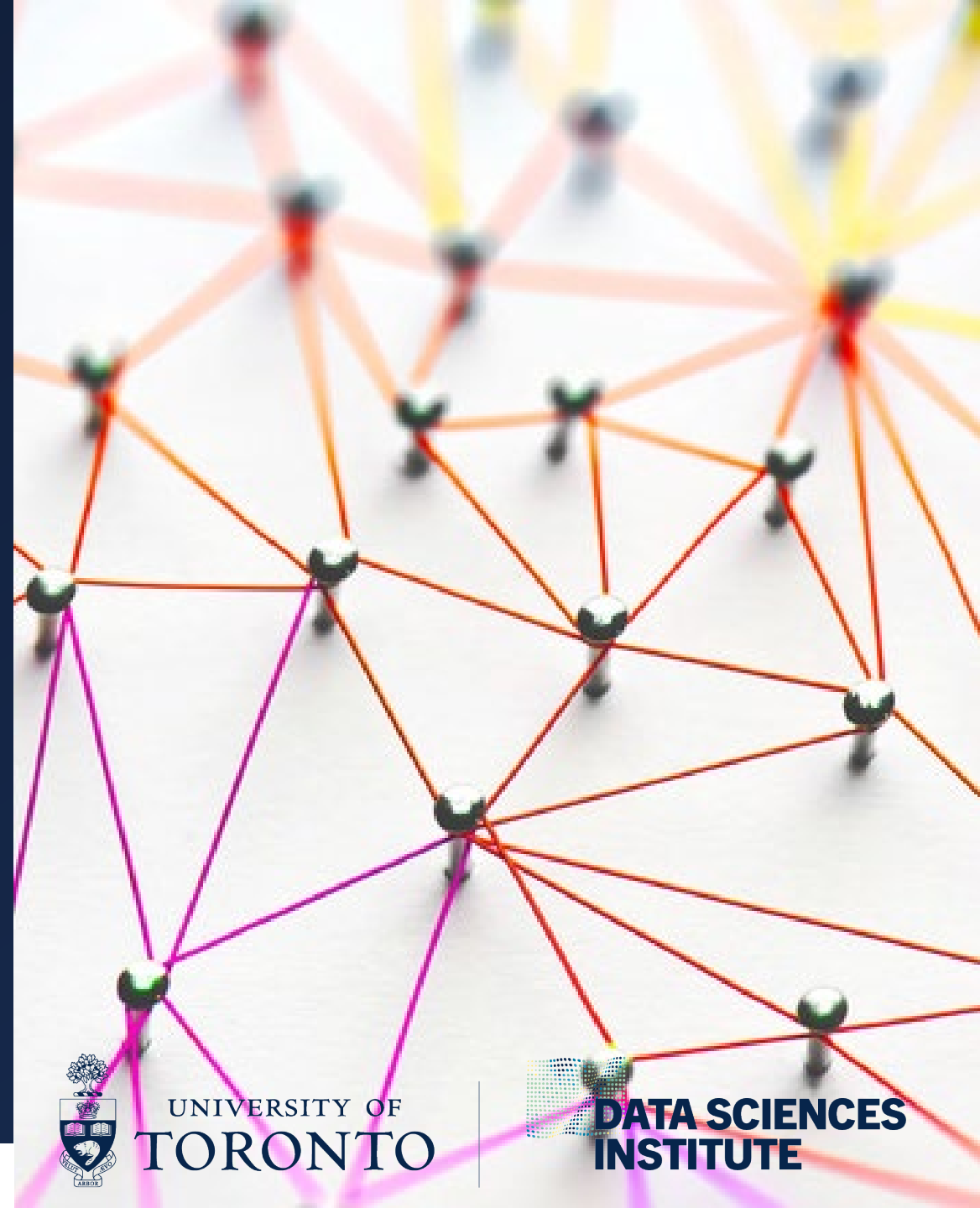
Mission Statement

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Data Sciences Institute
Partner Organizations

As an Institutional Strategic Initiative, the DSI spans all three University of Toronto campuses. In addition, we bring together researchers from the following partner research organizations:

- **Baycrest**
- **Lunenfeld-Tanenbaum Research Institute**
- **The Hospital for Sick Children**
- **Unity Health**
- **University Health Network**

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Data Sciences Institute
Supports

We aim to catalyze new forms of collaboration by funding partnerships that bring methodologists and domain experts together at the inception of projects in collaborative research teams (CRTs). To this end, the DSI offers a range of supports to our community of DSI members, from competitive funding calls to training opportunities.

- **Catalyst Grants**
- **Data Access Grants**
- **Postdoctoral Fellowships**
- **Doctoral Student Fellowships**
- **Seed Funding for Methodologists**
- **ML Bootcamp for Faculty**
- **Research Software Development Support**
- **Summer Undergraduate Data Sciences (SUDS) Research Program**

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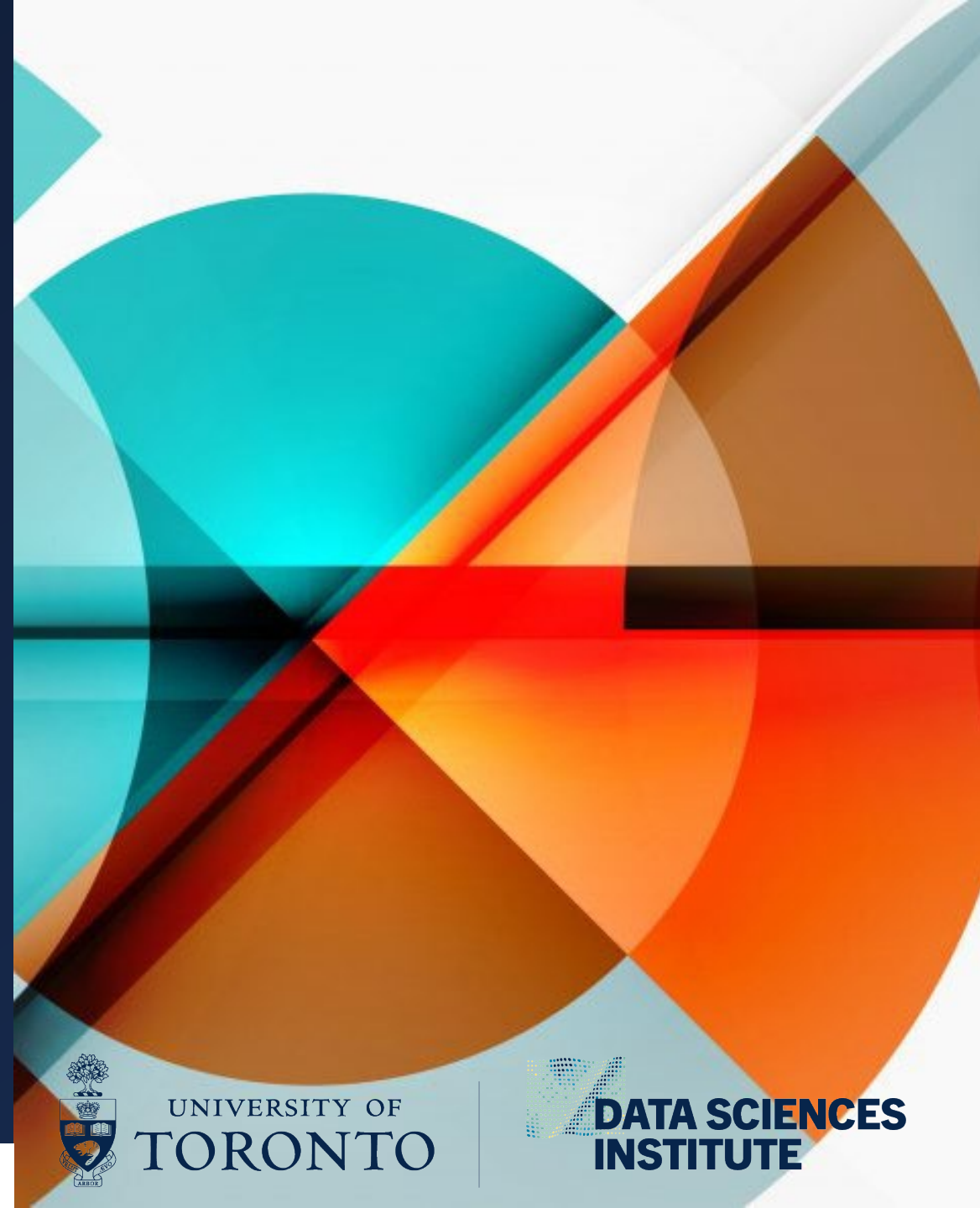
Data Sciences Institute
Thematic Programs

The DSI considers all applications that align with its mission, but it also supports applications that further research in two thematic program areas:

Inequity

Recognizing that data-based technologies can potentially increase inequities, this theme encourages the generation of evidence (data and inference) and tools that enhance our understanding of inequity while supporting equitable social change.

Reproducibility

This theme focuses on the development of widely adoptable methodology, processes, and infrastructure to share data and code locally and in privacy-compliant ways, and the development of infrastructure, methods and models that support reproducible and reliable research.

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2022 Catalyst Grant Competition

The Catalyst Grant is a competitive seed funding program for multidisciplinary teams forming a **Collaborative Research Team** (CRT) to develop novel statistical or computational tools or to use existing methodology in innovative ways to address questions of major societal importance and effect positive social change.

Catalyst Grants are expected to align with the Data Sciences Institute (DSI) mission to catalyze the transformative nature of data sciences across all disciplines, in fair and ethical ways, and to solve some of society's most complex and pressing problems.

In Round 1, 17 applications were successfully funded via this program.

Award Summary

Amount: Up to $100,000

Duration: 1-2 Years

Letter of Intent Deadline: July 15

Full Application Deadline: November 4

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2022 Catalyst Grant
Eligibility

Applicants who act as Nominated Principal Investigator or equal Co-Principal Investigators within a CRT must have a primary budgetary appointment at the University of Toronto (U of T) or at a DSI external funding partner institution.

Faculty budgetary appointments for U of T are continuing, full-time academic appointments with salary commitments from a U of T academic unit.

- NPI and Co-PIs must be members of the DSI.
- All other applicants can be listed as Co-Investigators and can come from any institution.
- There is no limit to the number of Co-PIs or Co-Investigators on a CRT.
- Applicants can be an NPI or Co-PI on **one** application per round.
- Co-Investigators can apply on multiple applications.

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2022 Catalyst Grant
CRTs

- At least one Co-PI must have a research focus in computational/data science methodology. Applications may provide justification for their role as a computation or data scientist in a CRT, if applicable.

- A computational/data scientist includes individuals working in foundational data science disciplines such as statistics, mathematics, engineering, information sciences, and computer science, or individuals engaged in big data-driven research, such as computational biology, computational social sciences, or digital humanities. This is not an exhaustive list.

- Co-PIs should represent complementary disciplines. Co-PIs from the same unit can apply but should be working in different areas.

- CRTs can represent new or existing research collaborations. A portion of the funds will be set aside for new collaborations.

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2022 Catalyst Grant
Timeline

Stage 1 Application

❖ Call: April 21

❖ Letter of Intent (LOI) Deadline: July 15

❖ Notification on LOI and invitations sent: August 30

LOIs will undergo review and only successful Stage 1 applicants will be invited to submit a full application.

Stage 2 Application

❖ Full Application Deadline: November 4

❖ Review Committee Meeting: Early December

❖ Notification of Award: January 2023

Full Info on Website

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Submission Process
Overview

All application materials can be found on the DSI Website.

Both the Stage 1 and Stage 2 applications include an online form to fill out with your CRT's details and a written component for which a template is provided.

The details for submitting these materials are explained in detail under the "Submission Process" tab. Any questions can be sent to Mark Abraham, DSI's Strategic Research Grants Officer, at awards.dsi@utoronto.ca.

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Submission Process
Letter of Intent

Deadline: July 15.

The LOI includes an online form that takes in details about your CRT, CVs for all PIs, and a 2-page written application with three sections:

- **Project Rationale, Goals, and Objective**: Brief overview of your project (maximum 1/3 page).

- **Project Impact and Alignment**: Explain your project's alignment to the **DSI mission**. Where applicable, discuss your project's research topic in relation to a DSI thematic program in **Inequity** and **Reproducibility** (maximum 2/3 page).

- **Research Approach and Methods**: Brief overview of the methods that you will use, noting how your project will develop novel methodology or innovatively applies existing approaches (maximum 1 page).

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Submission Process
Full Application

Deadline: November 4.

LOIs will be reviewed and successful CRTs at the LOI stage will be invited to submit full applications by the end of August.

The full application includes an online form that takes in details about your CRT, CVs for all CRT members, and an 8-page written application.

- Project rationale, goals, and objectives (maximum 2/3 page).

- Project impact and alignment with the DSI Mission (maximum 2/3 page).

- Research approach and methods (maximum 3 pages).

- The team (e.g., joint research group meetings) (maximum 2/3 page).

- Project milestones and timelines (maximum 2/3 page).

- Description of the feasibility of your study, the research environment, and budget justification (maximum 2/3 page).

- Integration of equity, diversity, and inclusion (EDI) considerations (maximum 2/3 page).

- References (maximum 1 page).

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Submission Process
Adjudication Criteria

Adjudication criteria can be found on the DSI Website, under the "Adjudication Process" tab. Along with a summary, the detailed rubrics provided to reviewers can also be downloaded.

For the LOI, adjudication focuses on the proposed project's alignment with the DSI mission and the extent to which the reviewer believes that the methods proposed are novel or innovative.

For the full application, adjudication will expand to consider the proposed project's feasibility, budget justification, and CRT roster.

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F.A.Q. / Q&A

Q. My project is purely methodological and has no applied component. Can I apply?
A. CRTs that focus purely on the development of novel data science methodologies are eligible.

Q. How large can my CRT be?
A. We have had applications for 5 researchers, but most applications include 2. The online form allows for 1 NPI and 5 Co-PIs to be entered with instructions for what to do if your team is larger.

Q. I would like to apply with another researcher in my unit. Is this allowed?
A. Yes, as long as the required complementary of Co-PIs is satisfied.

Q. What proportion of funds are reserved for thematic programs/new CRTs?
A. This is still TBD. We envision 2 for thematic programs and 3 for new CRTs, but the numbers will depend on the quality and number of applications.

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F.A.Q. / Q&A

Q. How often is this competition held?
A. Annually.

Q. How many grants will be awarded?
A. $1 million is budgeted for this year, allowing for up to 10 awards. In the inaugural round, we had 70 applications.

Q. Our CRT has 3 eligible members. Can my CRT also include a status-only, student, or otherwise ineligible Co-PI?
A. No. All co-equal PIs on a CRT *must* be eligible. Collaborators who do not satisfy the eligibility requirements can be listed as Co-Investigators.

Q. How do the funds flow to the CRT?
A. Funds will be distributed to the NPI, who is responsible for distributing and managing the funds and reporting on behalf of the team.

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F.A.Q. / Q&A

Q. Can a project be submitted to both thematic programs? How do we indicate this on the LOI and application?
A. Yes. The MS Form allows for multiple selections on the question that requests this information.

Q. What are the main evaluation criteria for applied applications?
A. The <u>website</u> provides a summary of the rubrics as well as links to .pdf copies of the full rubric supplied to reviewers.

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