

CANADA FOUNDATION FOR INNOVATION

2023 Report on results

An annual summary of
project outputs and outcomes

November 2023

INNOVATION

Canada Foundation
for Innovation

Fondation canadienne
pour l'Innovation



2023 Report on results

The purpose of the report on results is to provide a summary of the outputs and outcomes achieved through research infrastructure funded by the Canada Foundation for Innovation (CFI) as they relate to the overall objectives of the CFI.

This report presents a summary of information provided through annual project progress reports (PPRs). The PPR is an online questionnaire which is completed by the researcher leading a CFI-funded project and submitted by the host institution after the research infrastructure becomes operational. Institutions are required to submit a PPR for each funded project by June 30 each year, for four or five years depending on the award value.

The information considered in this report reflects performance reported from April 1, 2022 to March 31, 2023 only. Data is self-reported by researchers and submitted by funded universities, colleges, research hospitals and non-profit research organizations, and has not been independently verified by the CFI.

Consult [Appendix 1 – Composition of the 2023 project progress report sample](#) for more information.

Table of contents

Attraction and retention of world-class researchers	1
Researcher attraction	1
Researcher retention.....	2
Development of highly qualified personnel.....	3
Trainees using research infrastructure.....	3
Quality of training environment.....	4
Highly qualified personnel employment	5
Capacity for world-class research	6
Operation and maintenance.....	6
Research infrastructure quality and useful life	7
Research infrastructure use.....	8
Sharing of research results	9
Productive networks and collaboration	10
Productive collaborations.....	10
Research agreements.....	11
Economic growth and job creation	12
From research to innovation.....	12
New jobs	13
Benefits to Canadians	14
A range of benefits	14
Users of research outcomes.....	15
Challenges	16
Most common factors limiting research.....	16
Appendix 1 – Composition of the 2023 project progress report sample	17

About the Canada Foundation for Innovation

With a bold, future-looking mandate, the CFI equips researchers to be global leaders in their fields and to respond to emerging challenges. Our investments in state-of-the-art tools, instruments and facilities at universities, colleges, research hospitals and non-profit research institutions underpin both curiosity- and mission-driven research that cuts across disciplines and bridges all sectors. The research infrastructure we fund mobilizes knowledge, spurs innovation and commercialization, and empowers the talented minds of a new generation.

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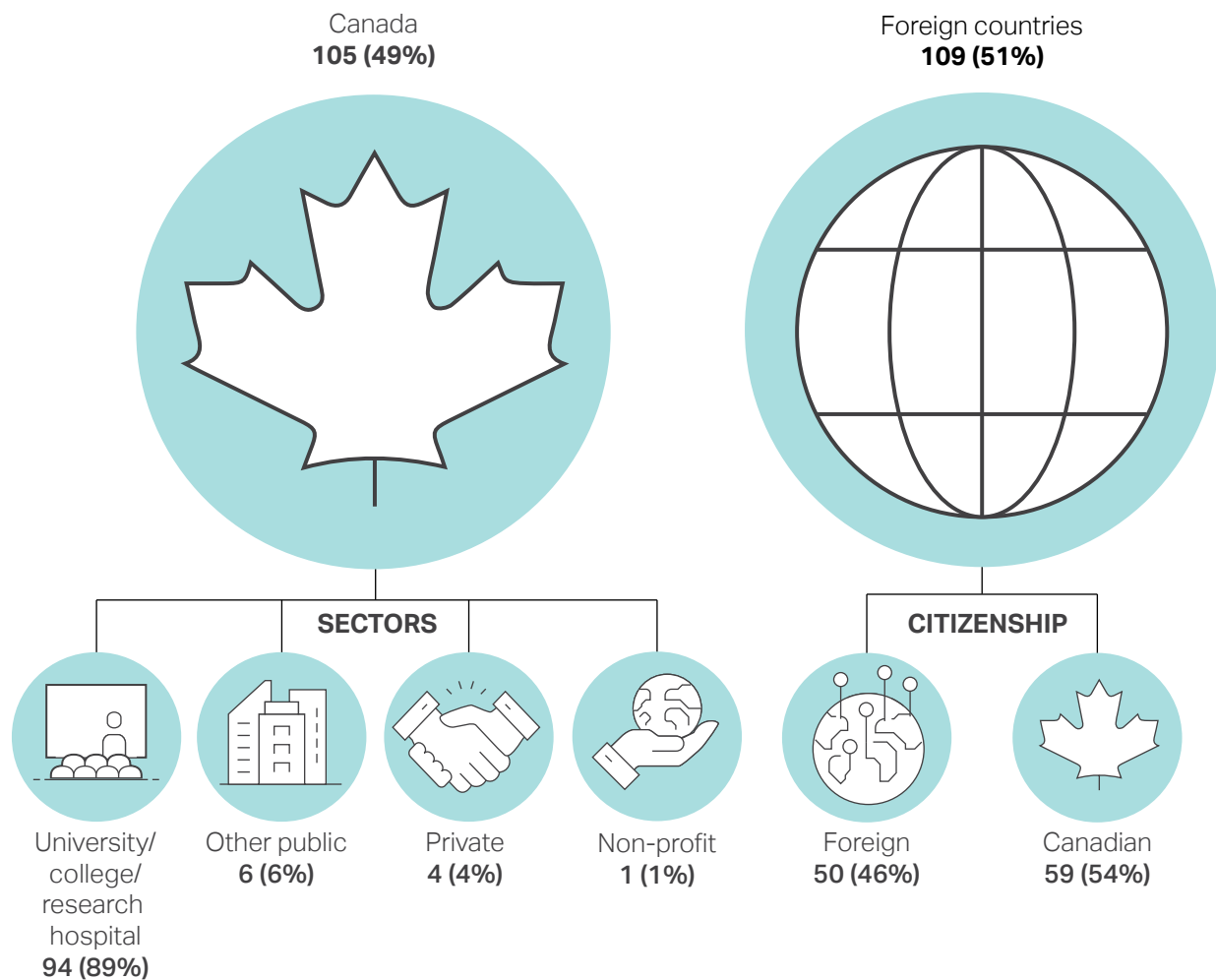
Attraction and retention of world-class researchers

Researcher attraction

Among the 214 newly recruited researchers leading CFI-funded projects, 98% indicated that CFI-funded research infrastructure positively influenced their decision to join their institution.

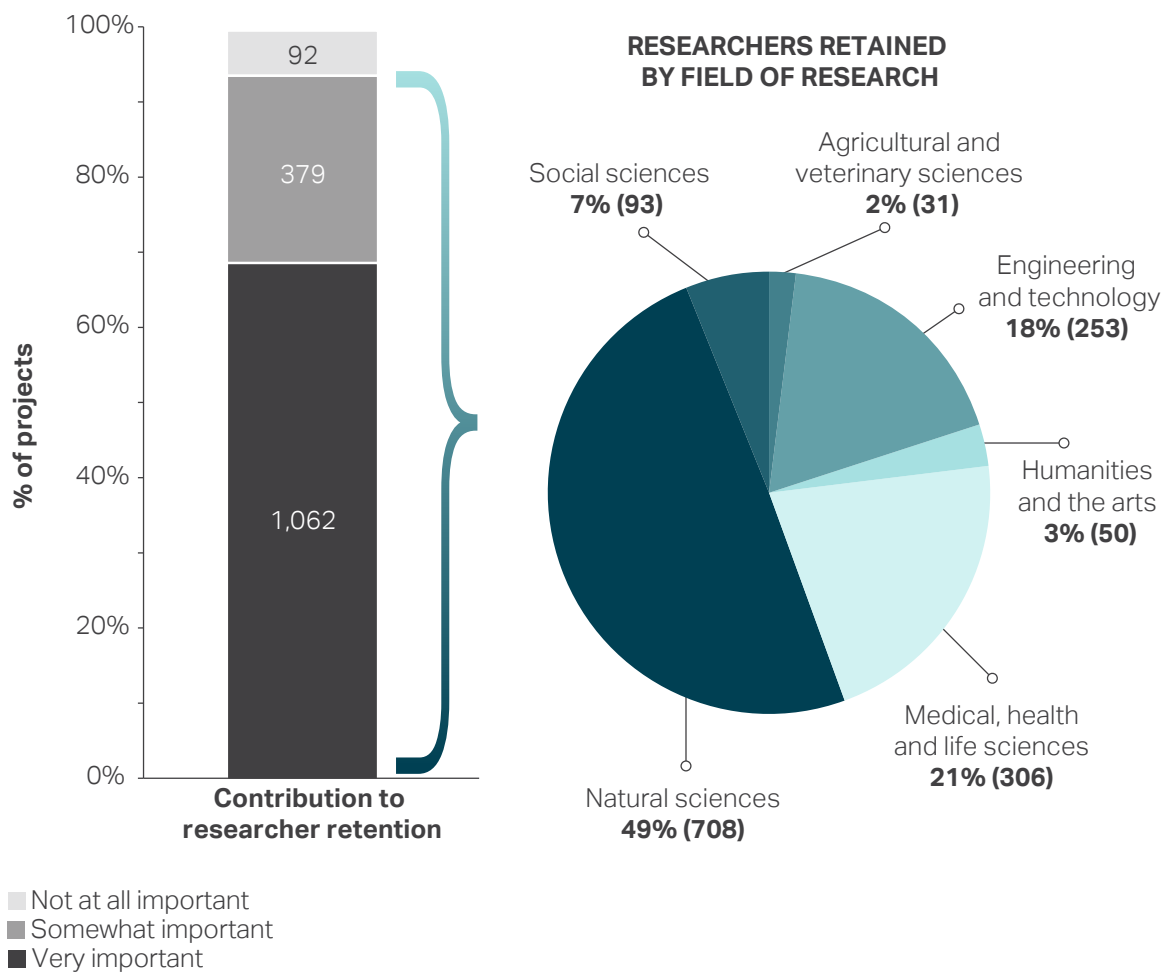
Just over 50% of new recruits (of Canadian or non-Canadian citizenship) were in foreign countries at the time of their hiring, suggesting that CFI-funded research infrastructure contributed to attracting international talent and internationally trained Canadian talent.

Those new recruits who were already in Canada (49%) came from different sectors but were predominantly from academia.



Researcher retention

94% of researchers leading CFI-funded projects indicated that CFI-funded research infrastructure was important in their decision to remain at their institution. Funding for research infrastructure helped retain researchers from all fields of research.

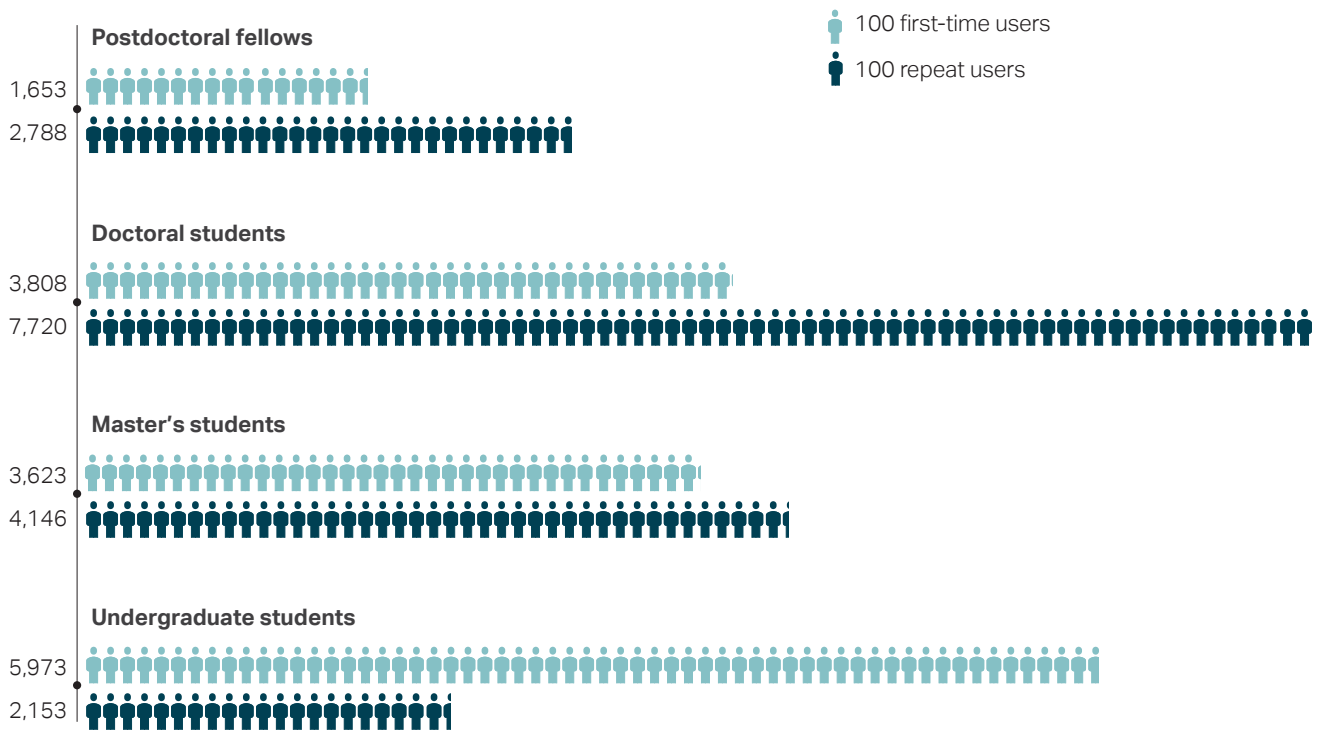


Development of highly qualified personnel

Trainees using research infrastructure

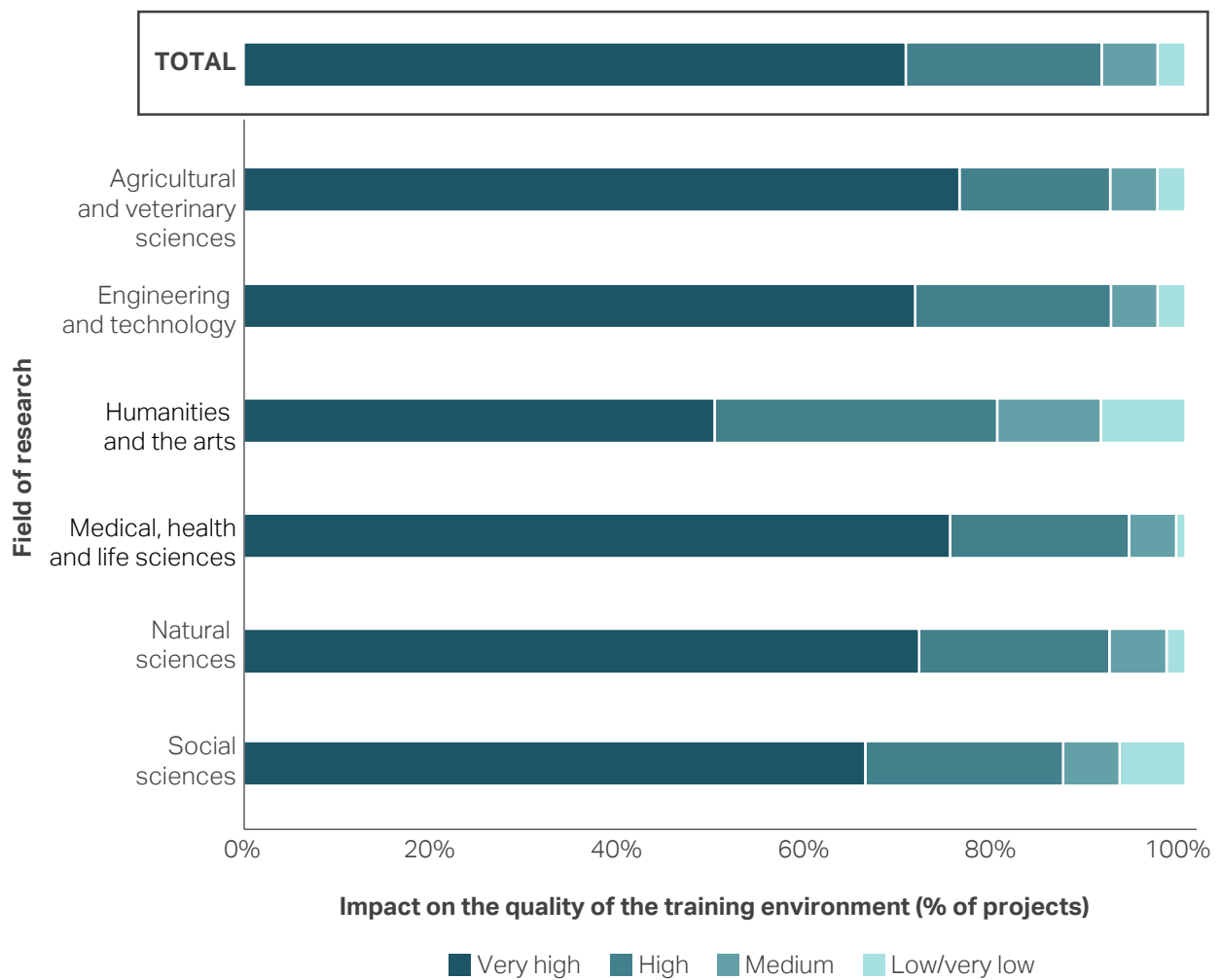
96% of researchers leading CFI-funded projects reported that CFI-funded research infrastructure was a key resource for the next generation of researchers.

31,864 postdoctoral fellows and higher education students had the opportunity to expand their research skills using CFI-funded research infrastructure. Of those, 47% used the research infrastructure for the first time in 2023.



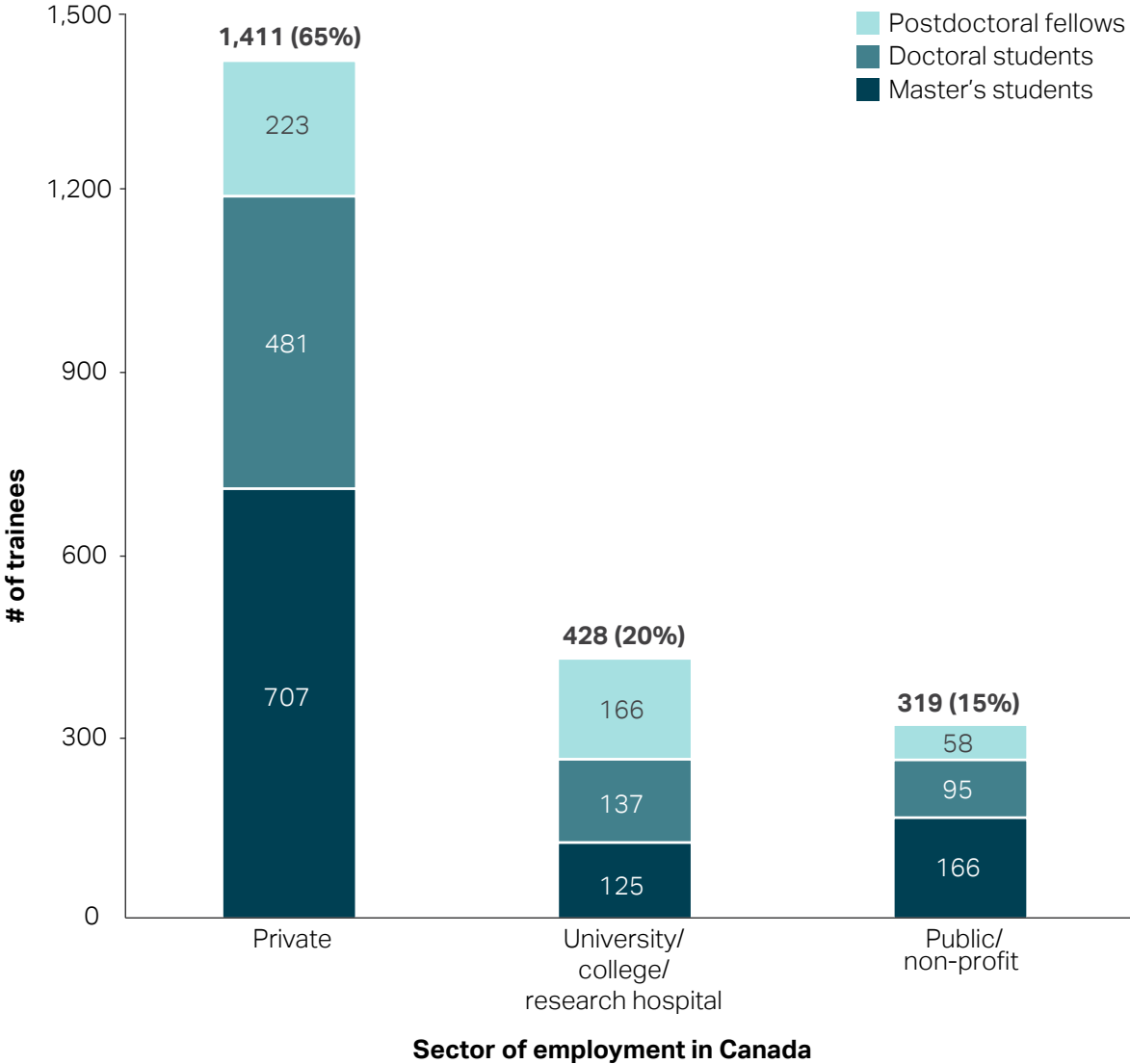
Quality of training environment

92% of researchers leading CFI-funded projects credited their CFI-funded research infrastructure with having a high or very high impact on the quality of the training environment. The data is relatively consistent across all fields of research except social sciences, and humanities and the arts, where ratings are lower.



Highly qualified personnel employment

A total of 2,588 postdoctoral fellows and graduate students using the research infrastructure completed their training and moved into the workforce. Among them, 83% (2,158) secured employment in Canada, the majority (65%) of whom joined the private sector.

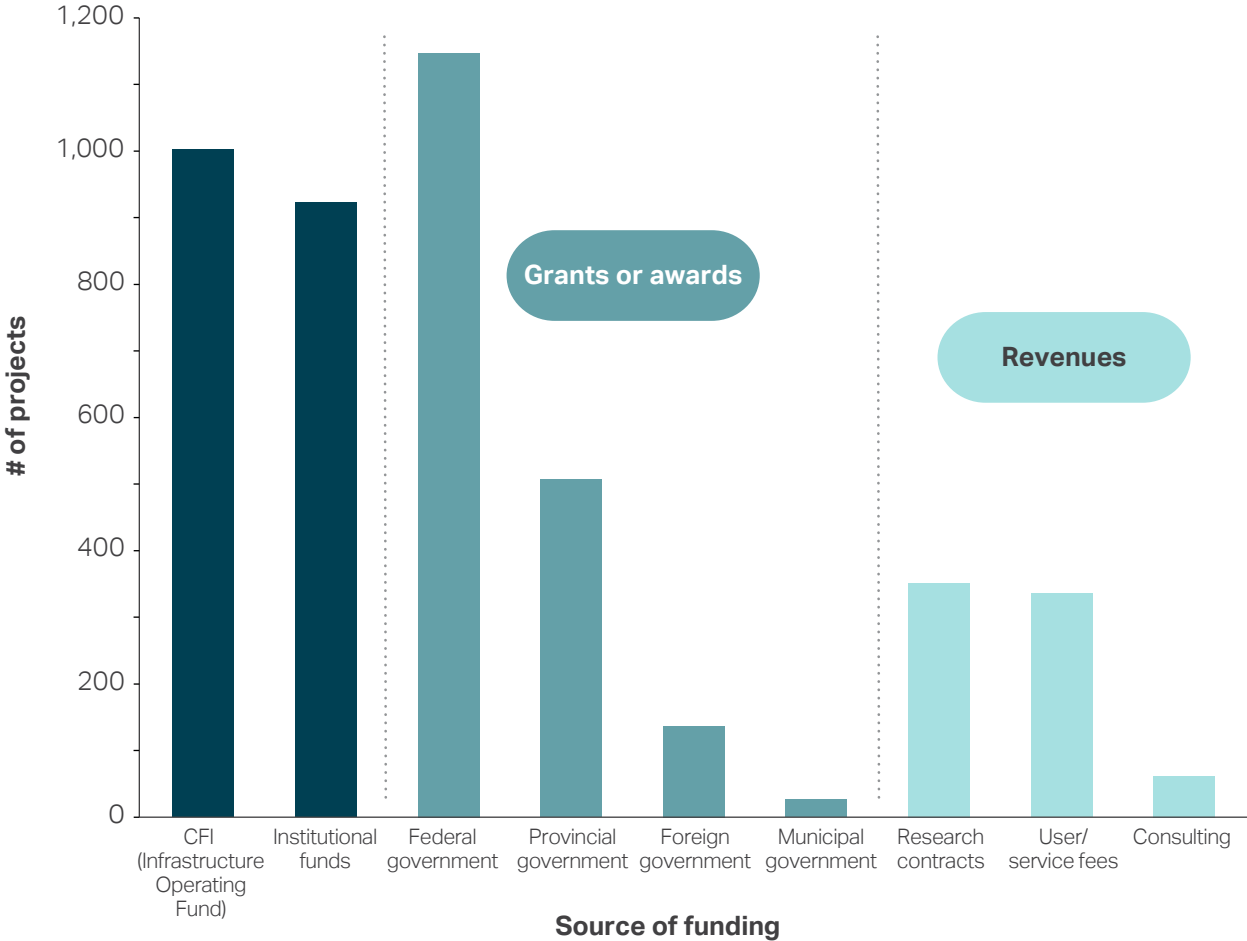


Capacity for world-class research

Operation and maintenance

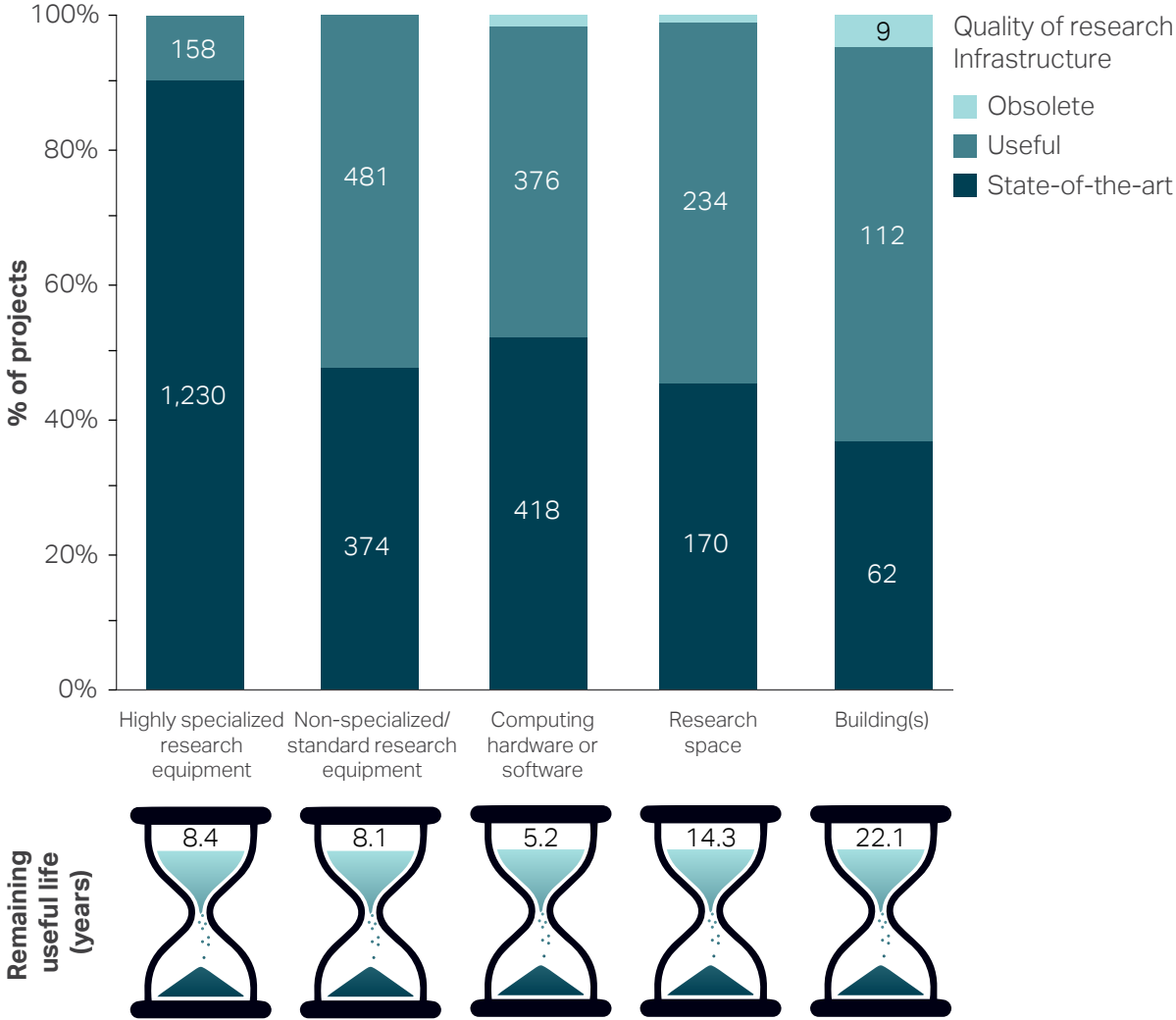
88% of researchers leading CFI-funded projects reported that they had both adequate financial and human resources for the operation and maintenance of their CFI-funded research infrastructure.

Diverse funding sources, including research contracts and user fees, contribute to the sustainability of the research infrastructure. Grants or awards from the federal government were the most common source of funding used.



Research infrastructure quality and useful life

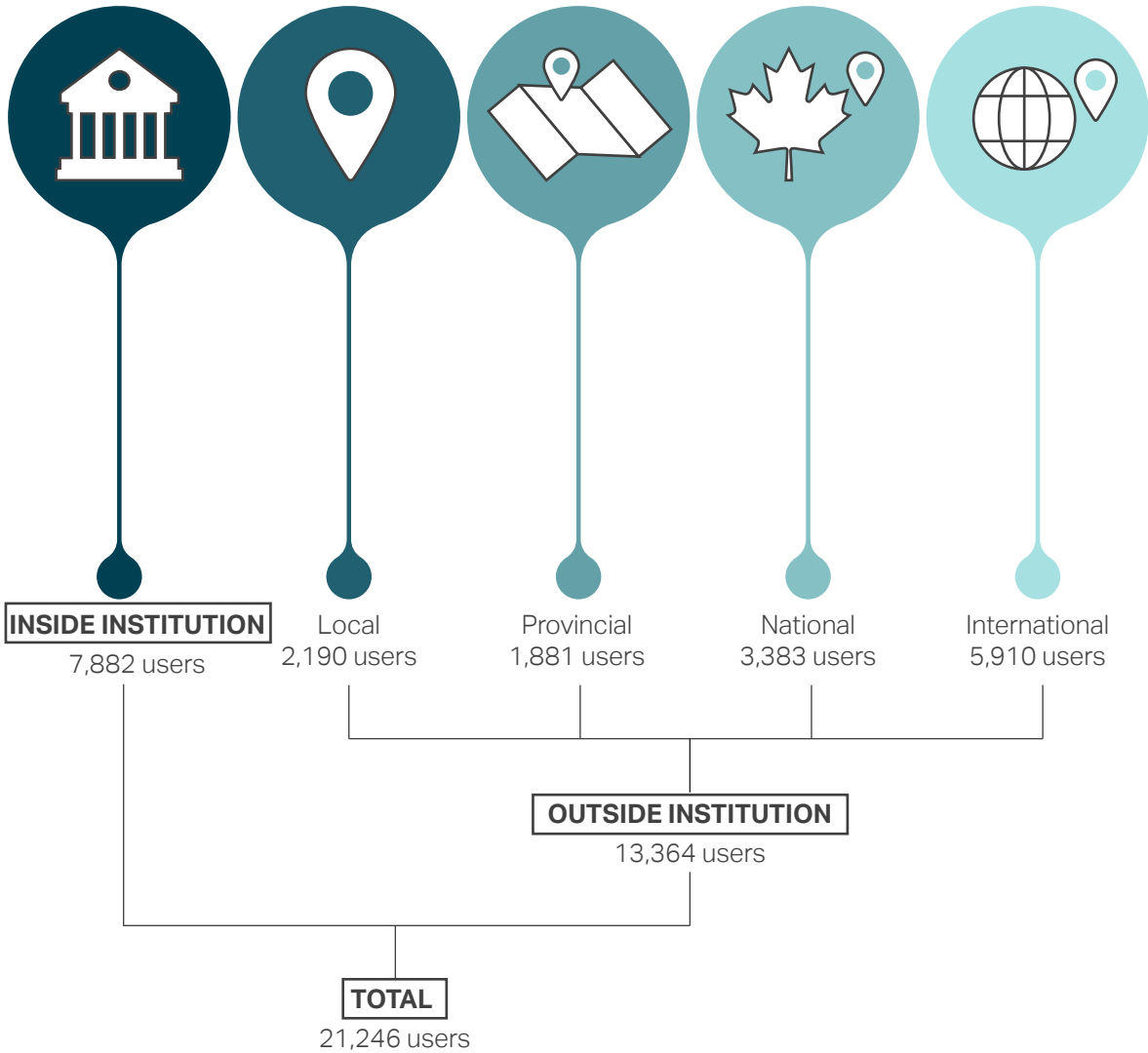
The quality of CFI-funded research infrastructure was highly rated overall, with researchers reporting that 88% of their highly specialized research equipment is state-of-the-art. Highly specialized research equipment was reported by researchers leading CFI-funded projects as having the highest level of quality (still being state-of-the-art) with a remaining useful life of over eight years, on average.



Research infrastructure use

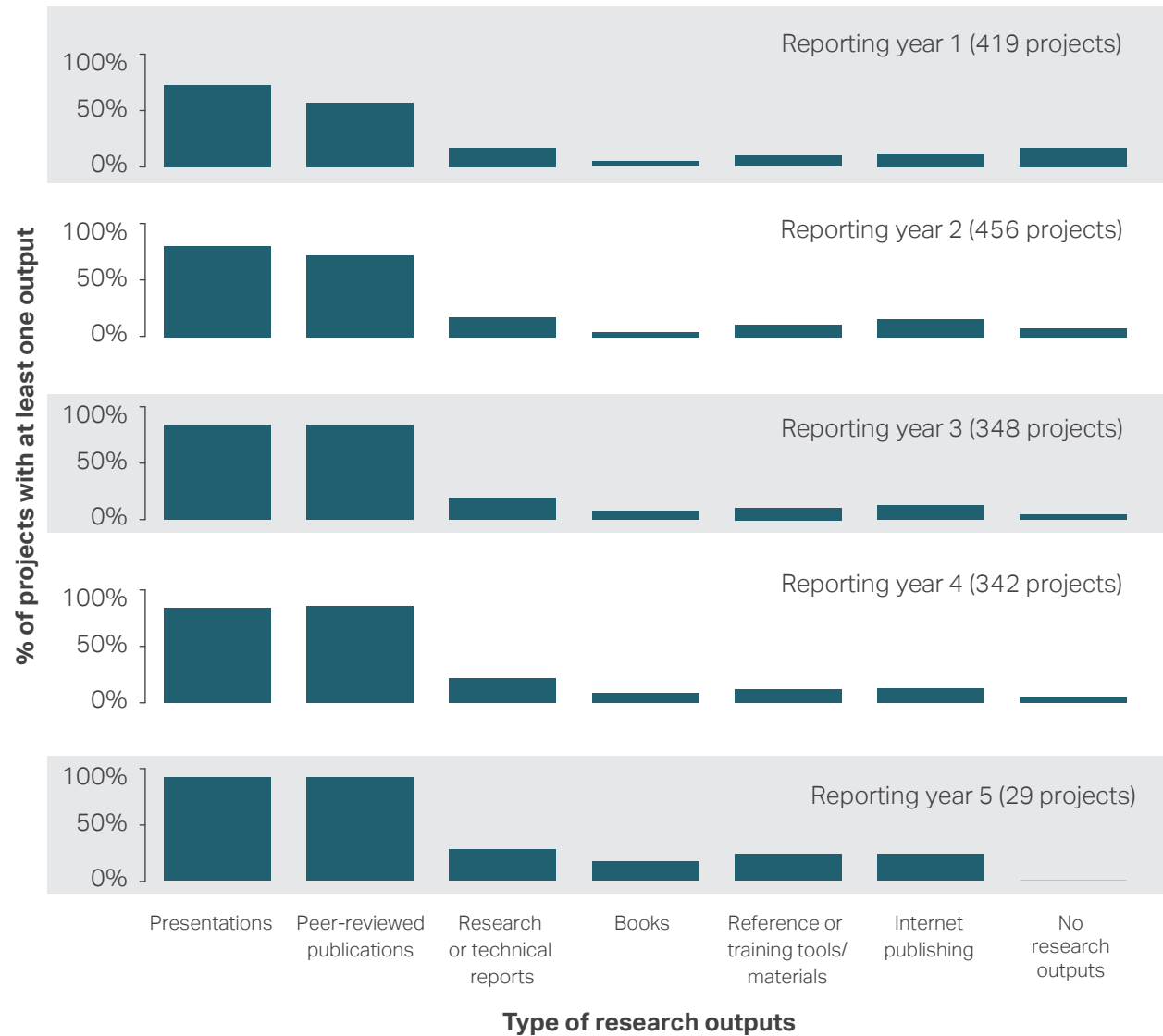
84% of researchers leading CFI-funded projects reported that their CFI-funded research infrastructure was used to maximum capacity. Overall, 21,246 researchers (excluding students, postdoctoral fellows and technical and professional personnel) advanced their research using CFI-funded research infrastructure.

The top five countries where the largest number of international research infrastructure users were from are Switzerland, the United States, France, the United Kingdom and Italy.



Sharing of research results

Conference, symposium and workshop presentations are the most frequent type of research output reported, closely followed by peer-reviewed publications.

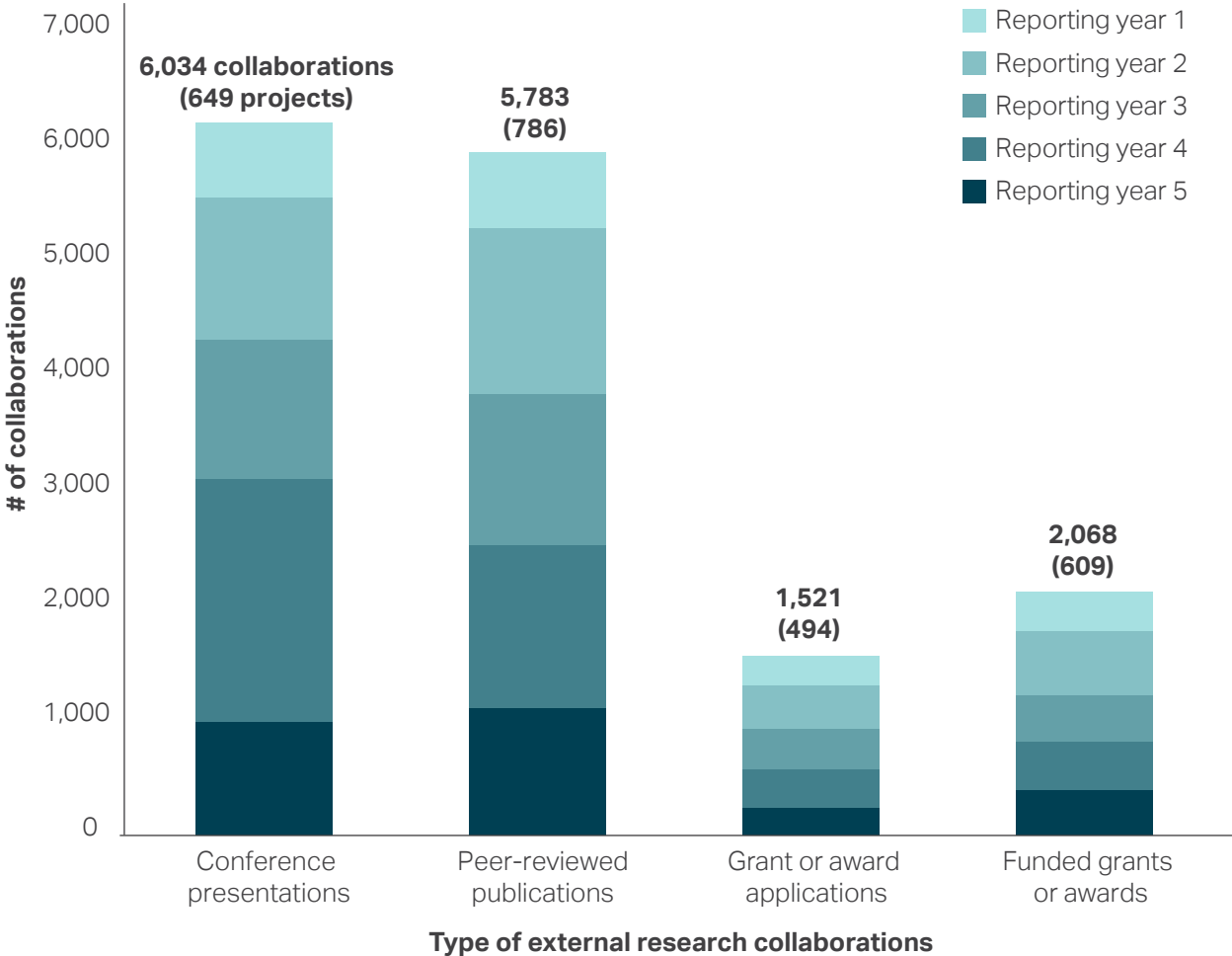


Productive networks and collaboration

Productive collaborations

Researchers have made use of CFI-funded research infrastructure to enable external research collaborations that resulted in traditional academic activities and outputs. The most common is conference presentations, with 6,034 reported by 649 researchers leading CFI-funded projects.

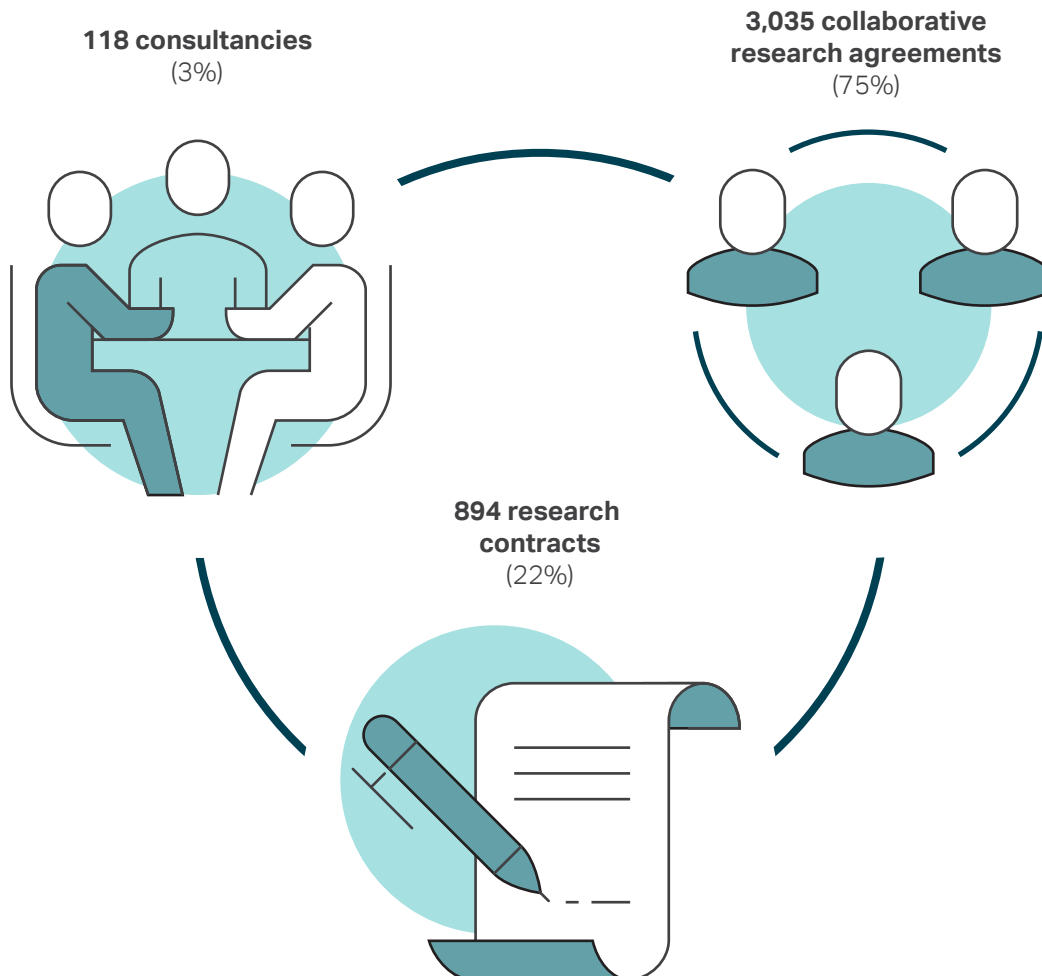
Among researchers leading CFI-funded projects that indicated external collaborations, 22% reported engaging in all four types, suggesting that CFI-funded research infrastructure enables broad and varied collaboration.



Research agreements

CFI-funded research infrastructure facilitated new formal collaborative research agreements in 32% of projects, for a total of 4,047 agreements.

The private sector was the sector most often identified for both consultancies and research contracts while the academic sector was most frequently reported for collaborative research.

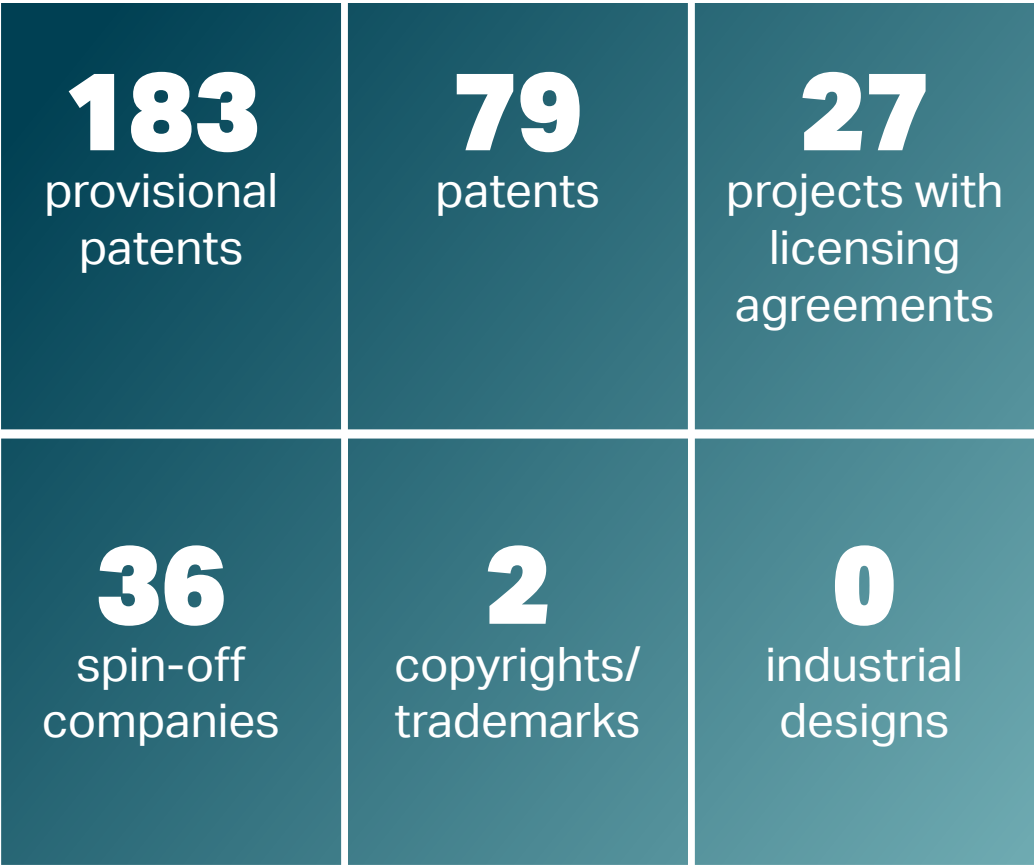


Economic growth and job creation

From research to innovation

CFI-funded research infrastructure has contributed to the development of new intellectual property and the creation of new companies.

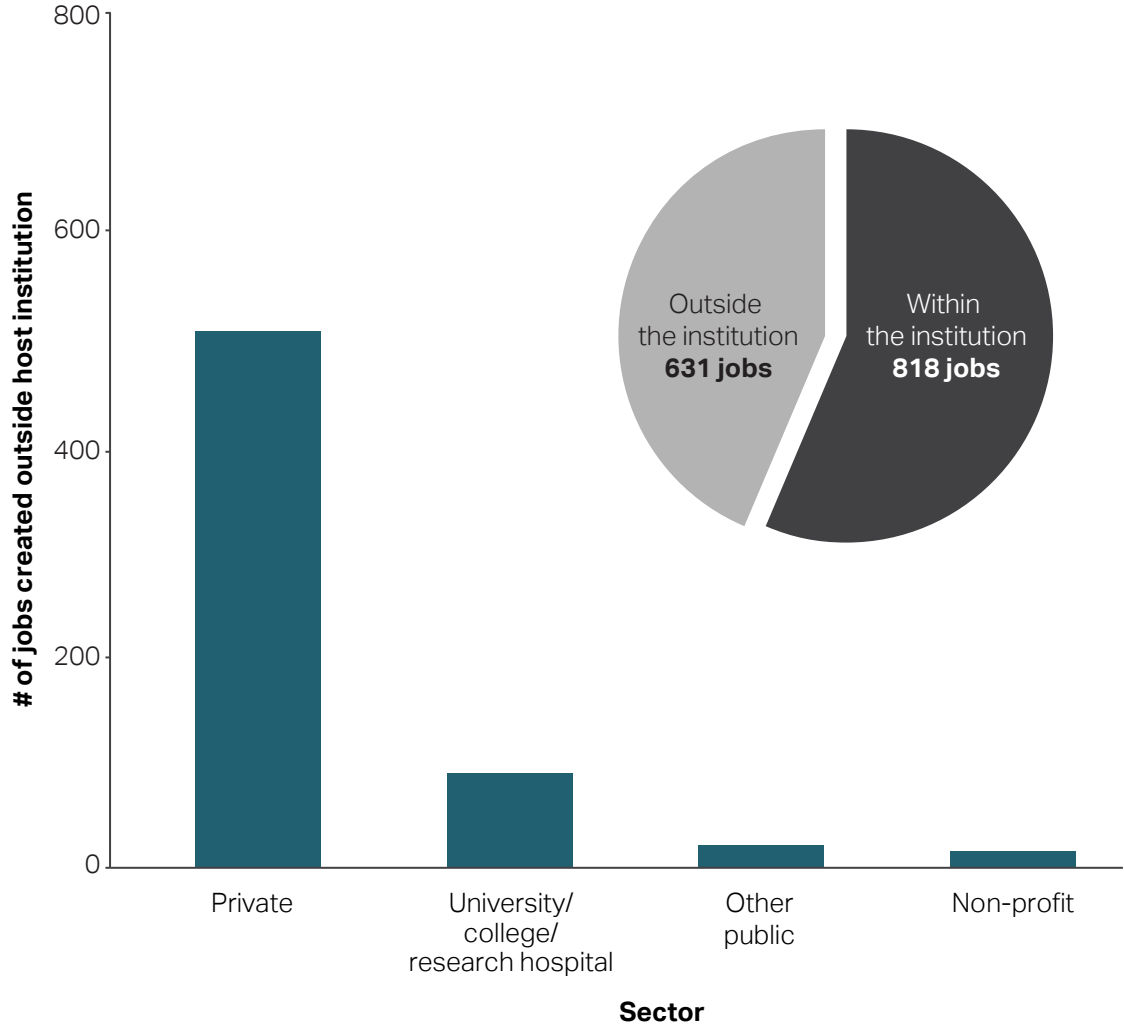
133 researchers leading CFI-funded projects reported at least one of the six types of research outcomes below.



New jobs

27% of researchers leading CFI-funded projects reported one or more jobs created due to CFI-funded research infrastructure.

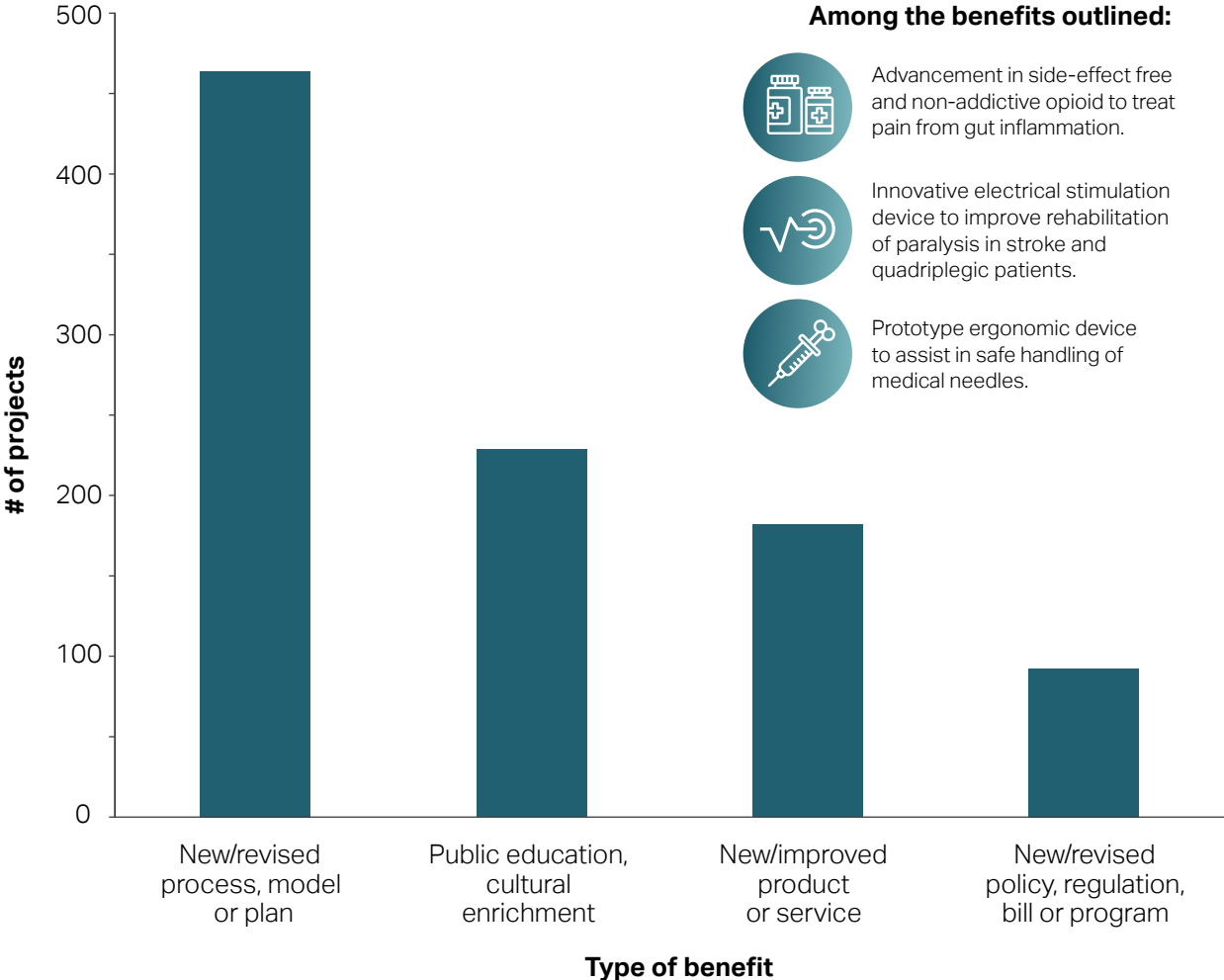
Over half of all jobs created were within the host institutions. 80% of the 631 jobs created outside the institution were in the private sector.



Benefits to Canadians

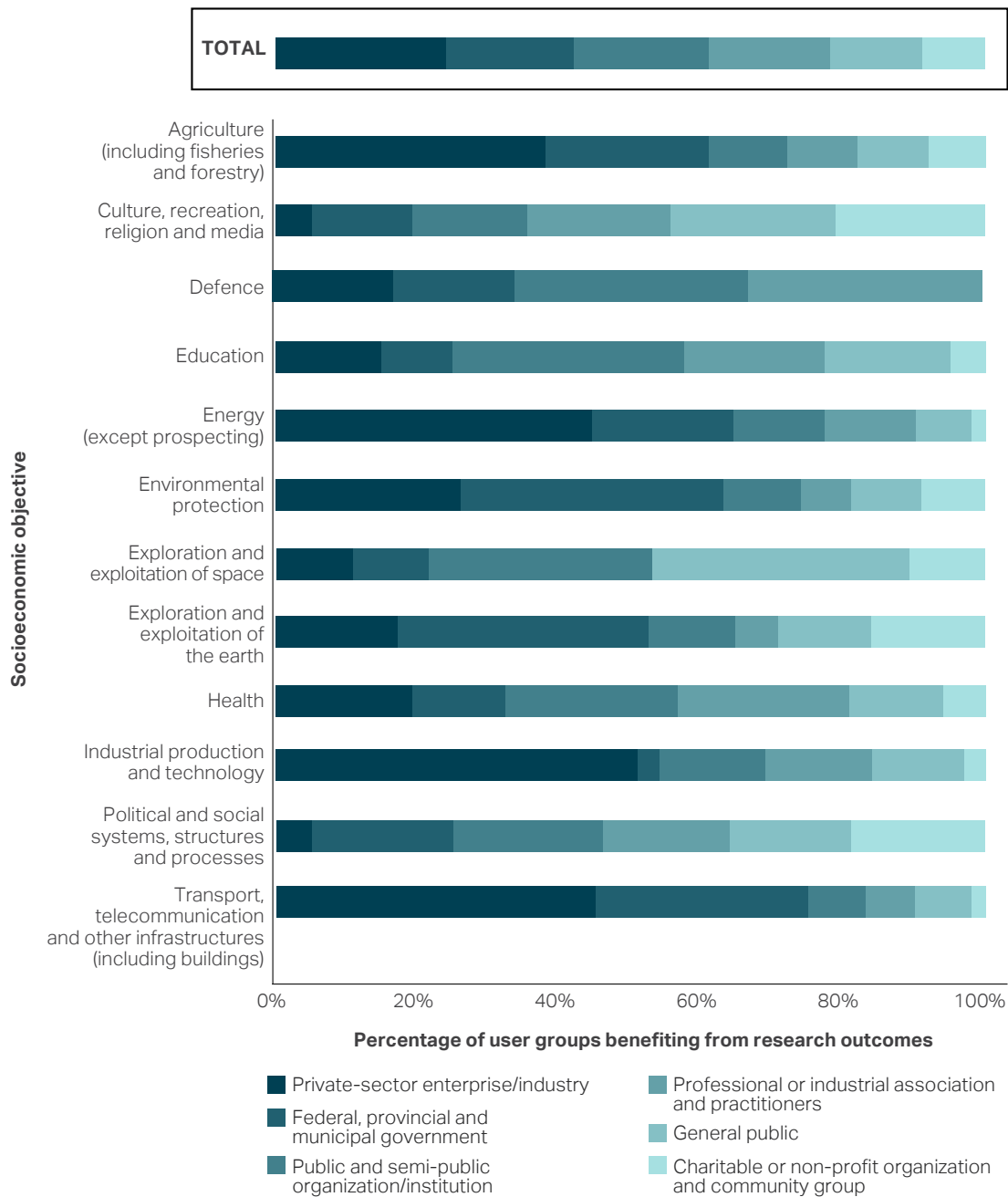
A range of benefits

Close to half (48%) of researchers leading CFI-funded projects reported at least one type of benefit, highlighting the role of CFI-funded research infrastructure in enabling research that produces outcomes for Canadians.



Users of research outcomes

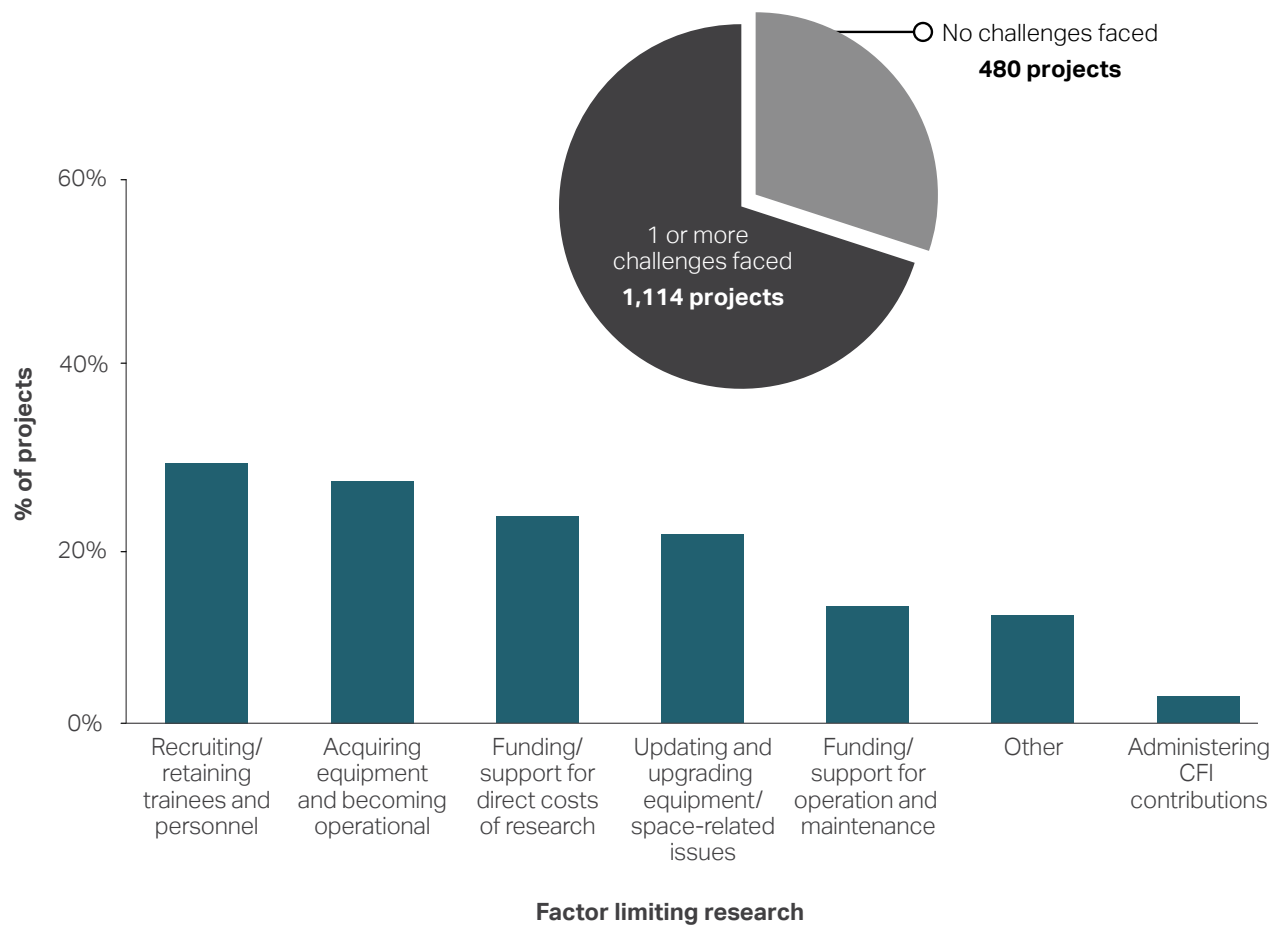
Overall, the most frequently reported user group benefiting from the research results was the private sector, followed by public and semi-public organizations and institutions. Research users varied by socioeconomic objectives of the research; for example energy projects tended to benefit the private sector most while research on environmental protection tended to benefit the federal, provincial and/or municipal governments.



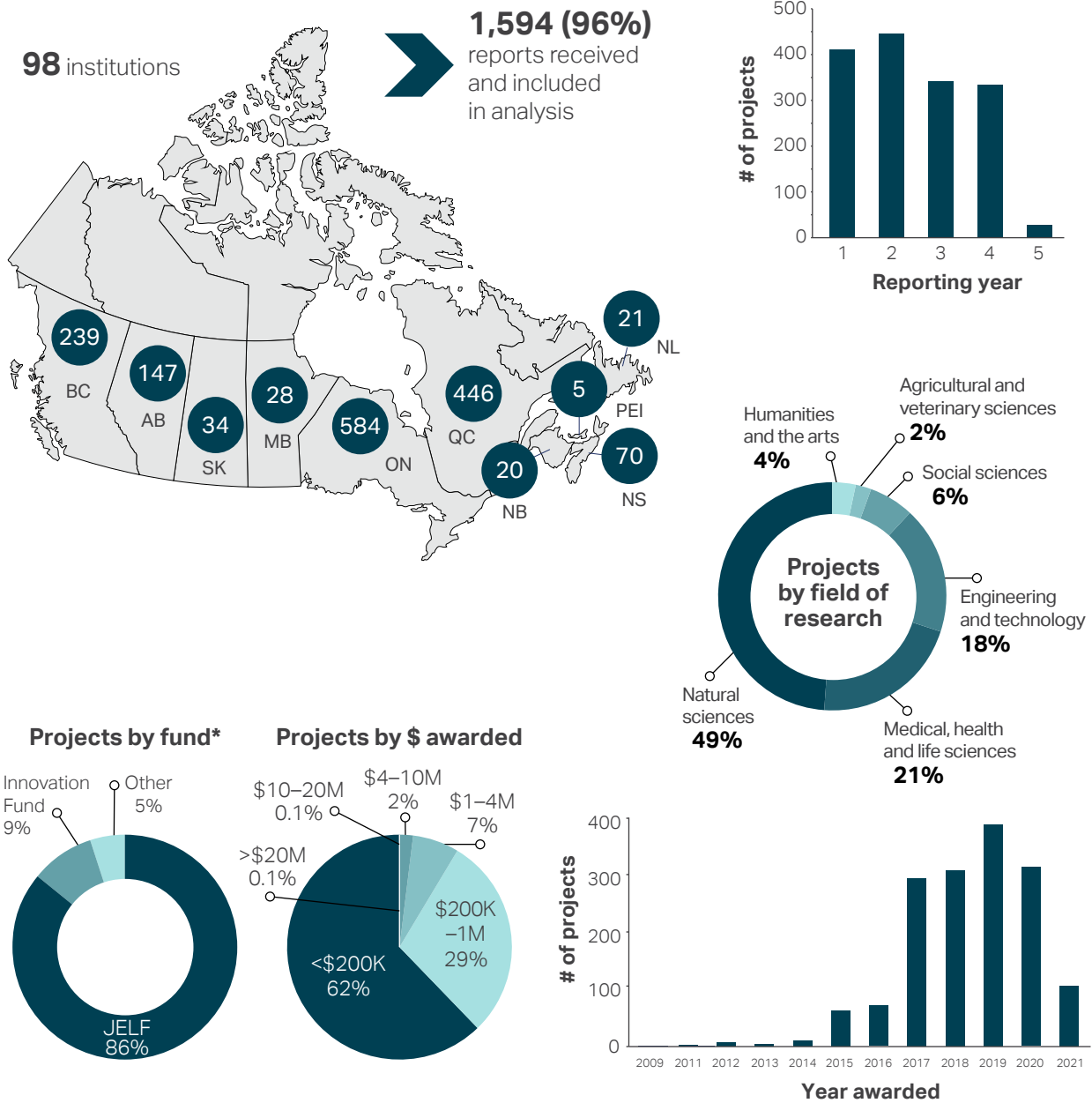
Challenges

Most common factors limiting research

70% of project leaders reported one or more factors limiting the quality and impact of the research enabled by the research infrastructure. The most common factor reported was recruiting or retaining of trainees and personnel.



Appendix 1 – Composition of the 2023 project progress report sample



* Innovation Fund includes projects funded through the Innovation Fund in 2015, 2017 and 2020, the New Initiatives Fund in 2012 and the Leading Edge Fund in 2009 and 2012.

John R. Evans Leaders Fund (JELF) includes projects funded through: a partnership between the Leaders Opportunity Fund and the Canada Research Chairs Program and both the unaffiliated and partnership (associated with an application for research support funding from another program).

“Other” includes projects funded through the Cyberinfrastructure Initiative – Challenge 1, the Exceptional Opportunities Fund (EOF) and the EOF COVID-19 Fund for both universities and colleges.