

CANADA FOUNDATION FOR INNOVATION

REPORT ON RESULTS 2019

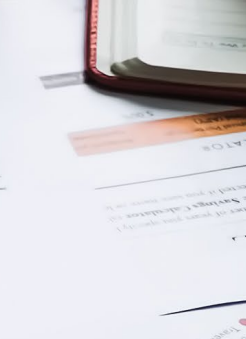
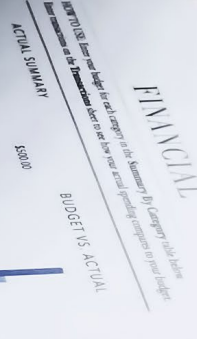
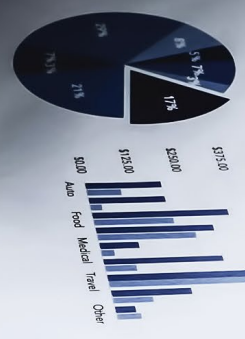
An annual summary of
project outputs and outcomes

INNOVATION.CA



SUMMARY BY CATEGORY

Category	Budget	Actual	Difference
Admin	\$200.00	\$80.00	\$120.00
Capital	\$200.00	\$20.00	\$180.00
Consulting	\$500.00	\$205.75	\$294.25
Equipment	\$300.00	\$250.00	\$50.00
Food & Beverage	\$100.00	\$5.00	\$95.00
Health	\$300.00	\$80.00	\$220.00
Information	\$200.00	\$550.00	-\$350.00
Medical	\$200.00	\$100.00	\$100.00
Travel	\$50.00	\$40.00	\$10.00
Other	\$50.00	\$40.00	\$10.00
Total	\$2,200.00	\$1,202.75	\$997.25



What is the Canada Foundation for Innovation?

The Canada Foundation for Innovation (CFI) makes financial contributions to Canada's universities, colleges, research hospitals and non-profit research organizations to increase their capability to carry out high-quality research.

Research supported by the CFI is helping build communities across Canada. That's because the CFI gives researchers the tools they need to think big and innovate. And a robust innovation system translates into jobs and new enterprises, better health, cleaner environments and, ultimately, vibrant communities. By investing in state-of-the-art facilities and equipment, the CFI also helps to attract and retain the world's top talent, to train the next generation of researchers and to support world-class research that strengthens the economy and improves the quality of life for all Canadians.

Since its creation in 1997, the CFI has committed almost \$8 billion in support of 10,771 projects at 154 research institutions in 75 municipalities across Canada (as of March 31, 2019). For more information about the CFI, please visit Innovation.ca.

THE REPORT ON RESULTS

The purpose of the report on results is to provide a summary of the outputs and outcomes achieved through CFI-funded infrastructure as they relate to the overall objectives of the CFI, based on information provided through annual project progress reports (PPR). 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 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 data collected pertains only to the CFI's past fiscal year (April 1, 2018 to March 31, 2019). Data is self-reported, and not independently verified.

For information on the composition of the 2019 PPR sample, see the [Appendix](#).

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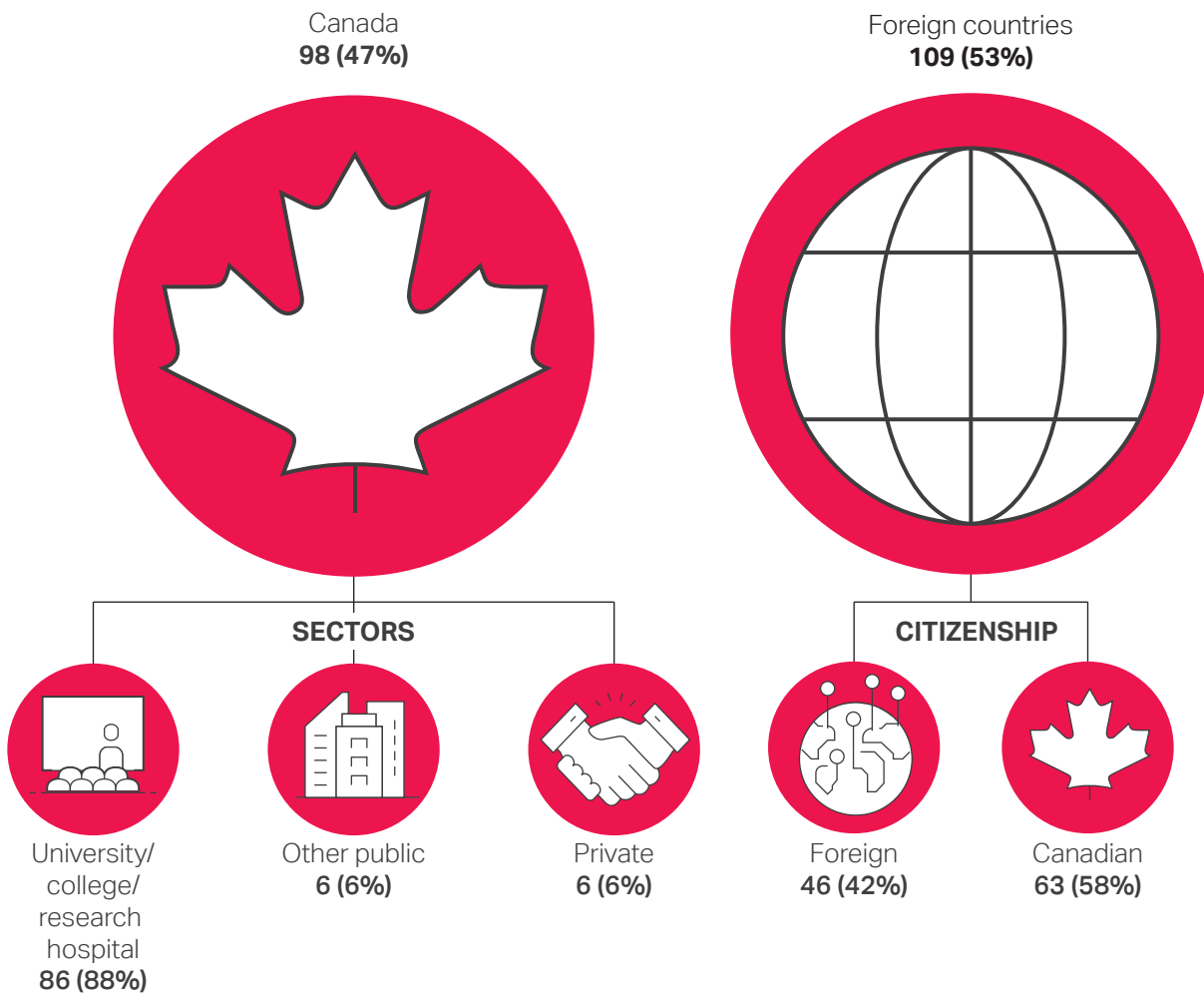
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ATTRACTING AND RETAINING WORLD-CLASS RESEARCHERS

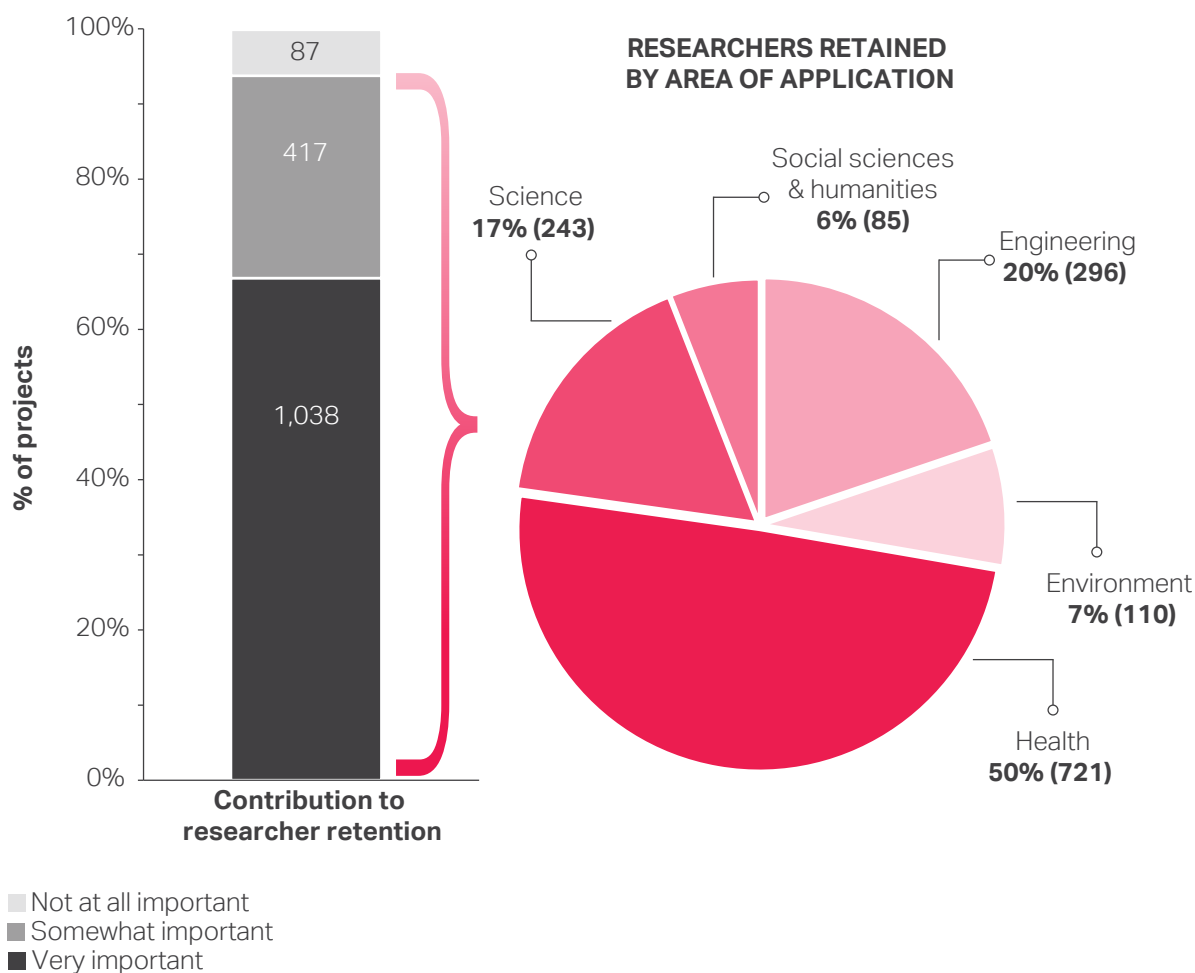
Researcher attraction

Among the 207 newly recruited researchers leading CFI-funded projects, 98% indicated that CFI-funded infrastructure positively influenced their decision to join their institution. A little 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 infrastructure **contributed to attracting international talent and internationally trained Canadian talent**. New recruits that were already in Canada (47%) came from all sectors but were predominantly from academia.



Researcher retention

94% of researchers leading CFI-funded projects indicated that CFI-funded infrastructure **was important in their decision to remain at their institution**. Infrastructure funding helped retain researchers from all disciplines.

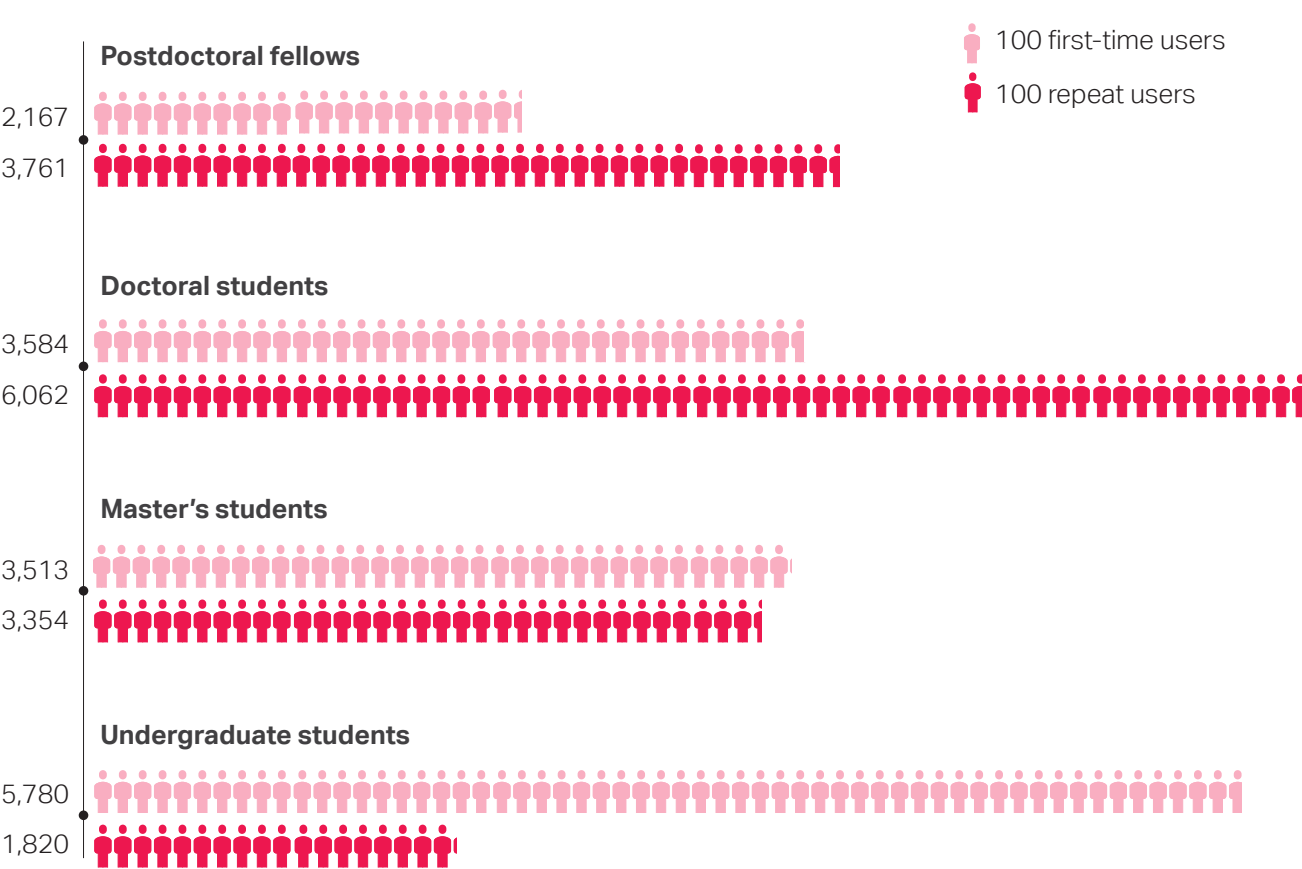


DEVELOPING HIGHLY QUALIFIED PERSONNEL

Trainees using infrastructure

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

30,041 postdoctoral fellows and higher education students had the opportunity to expand their research skills using CFI-funded infrastructure. Of those, 50% used the infrastructure for the first time in 2019.



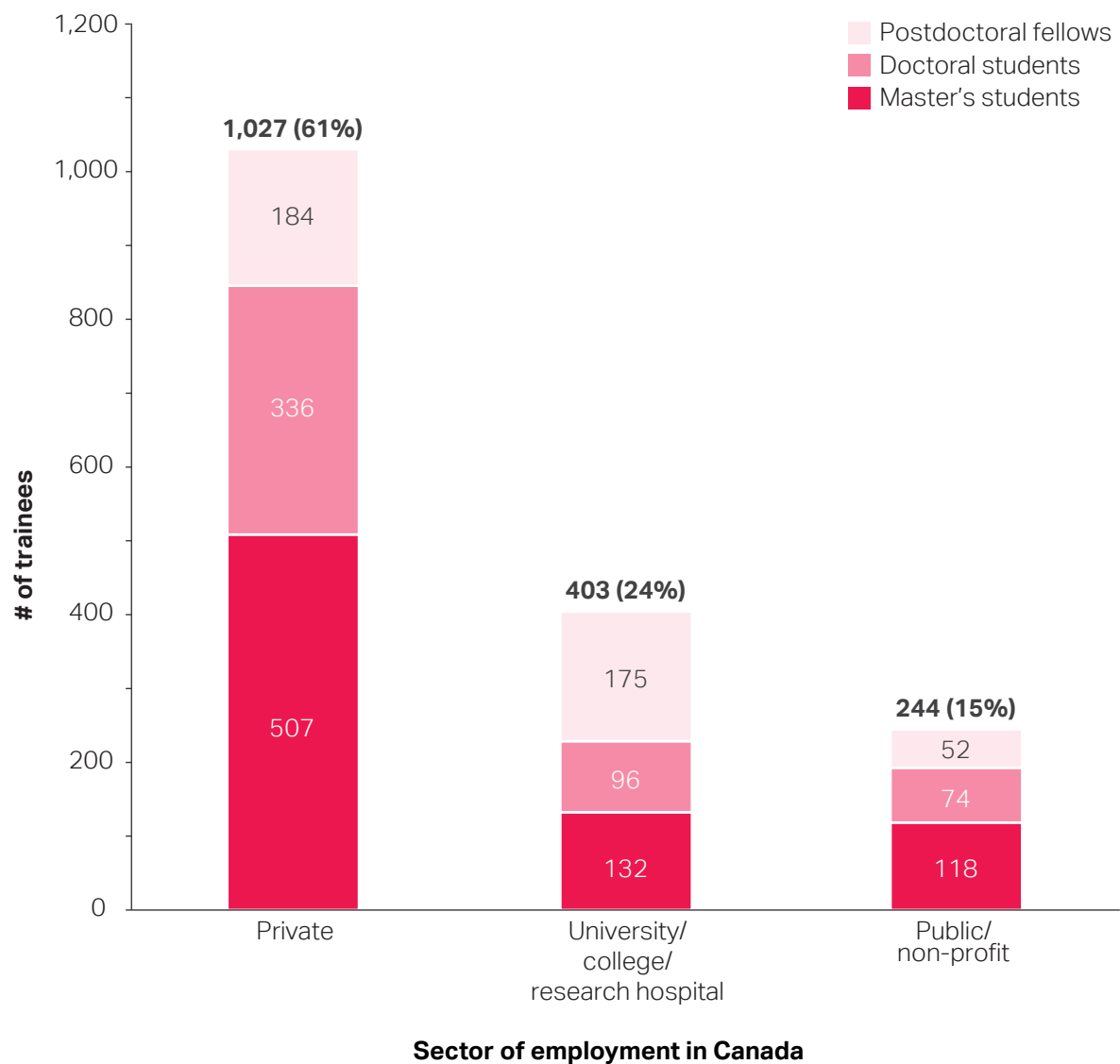
Quality of training environment

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



Highly qualified personnel employment

A total of 2,040 postdoctoral fellows and graduate students using the infrastructure last year completed their training and moved into the workforce. Among them, 82% (1,674) **secured employment in Canada**, the majority (61%) of whom joined the private sector.

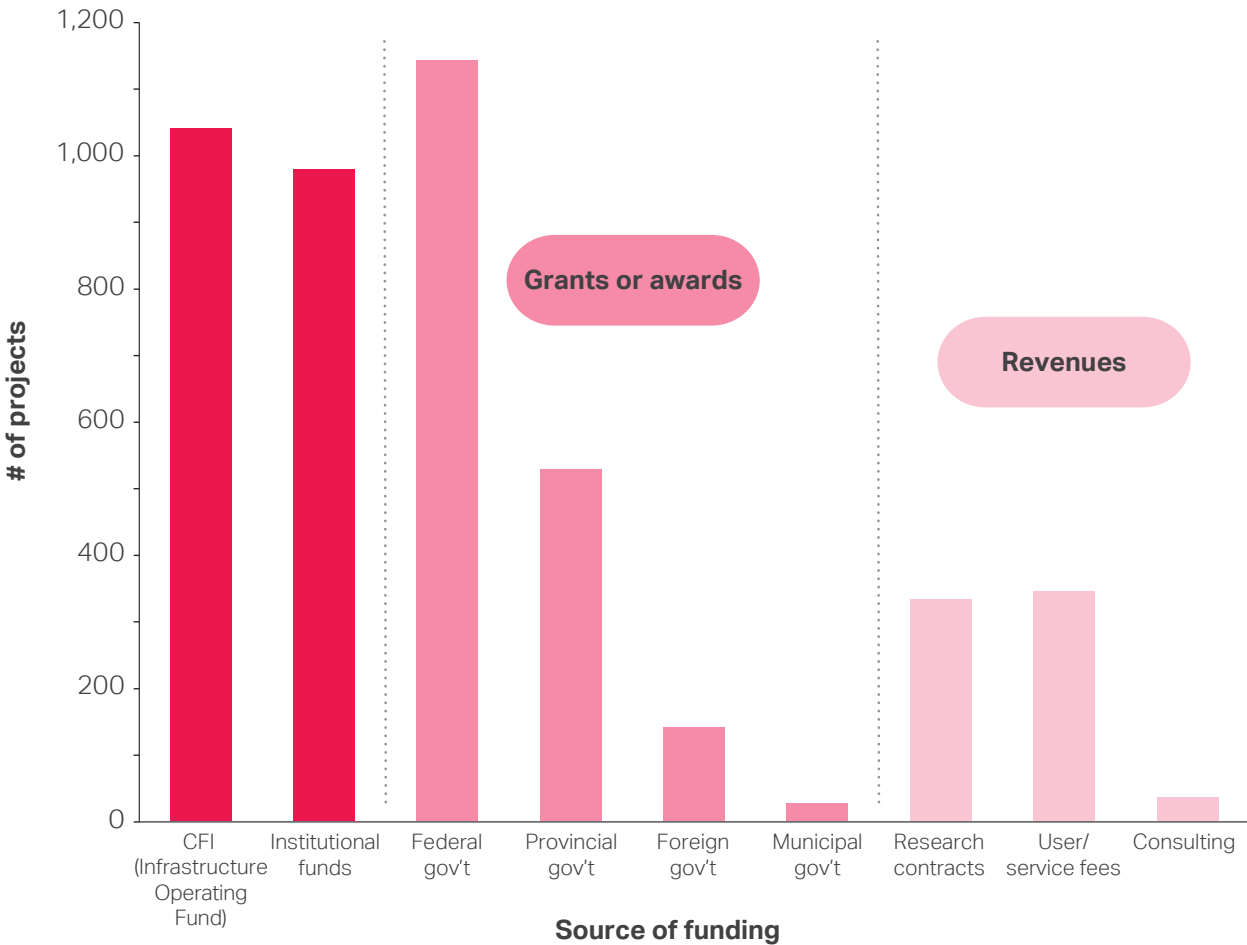


CAPACITY FOR WORLD-CLASS RESEARCH

Operation and maintenance

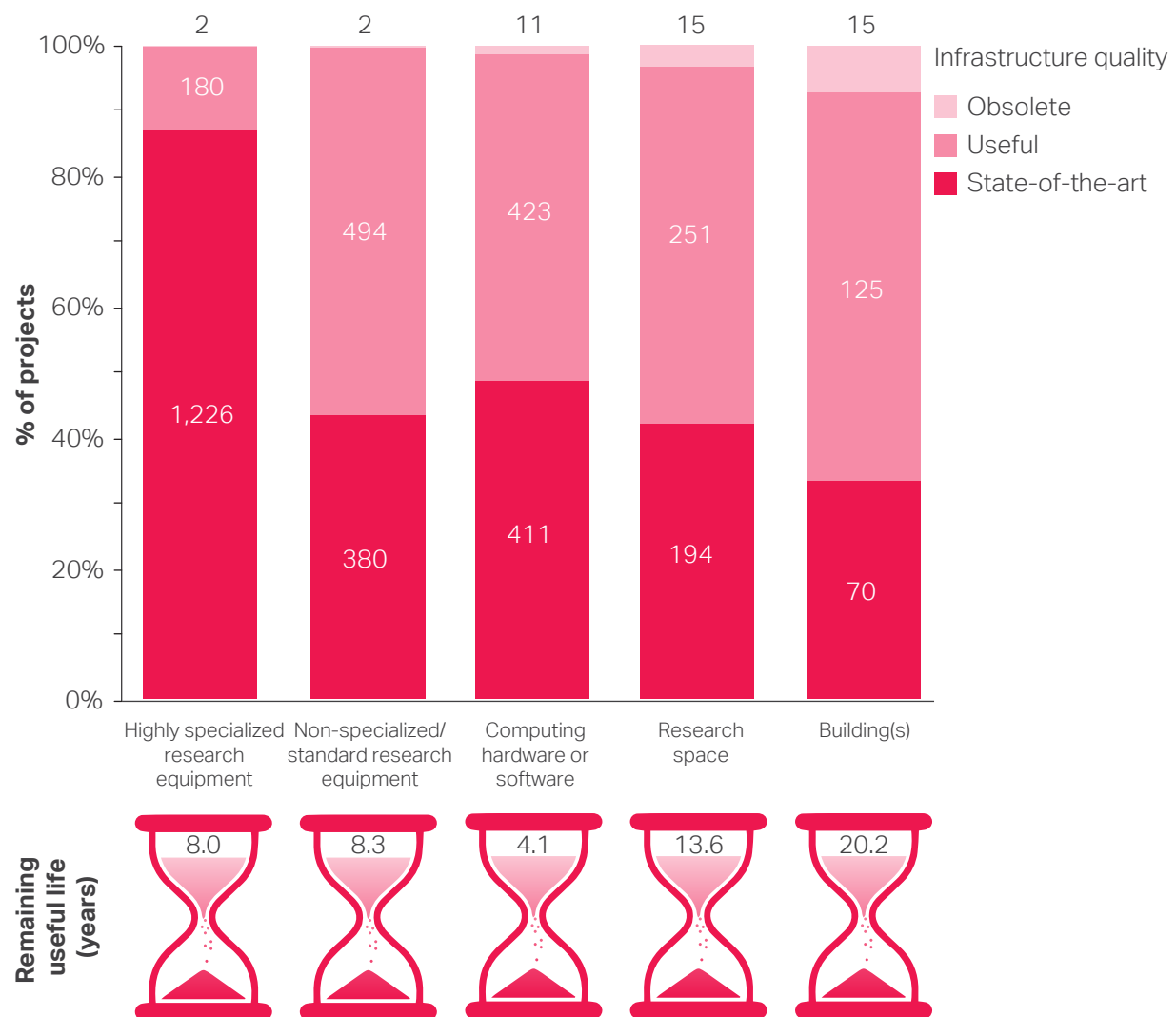
87% of researchers leading CFI-funded projects reported that they **had both adequate financial and human resources** for the operation and maintenance of their CFI-funded infrastructure.

Diverse funding sources, including research contracts and user fees, contribute to the sustainability of the infrastructure.



Infrastructure quality and useful life

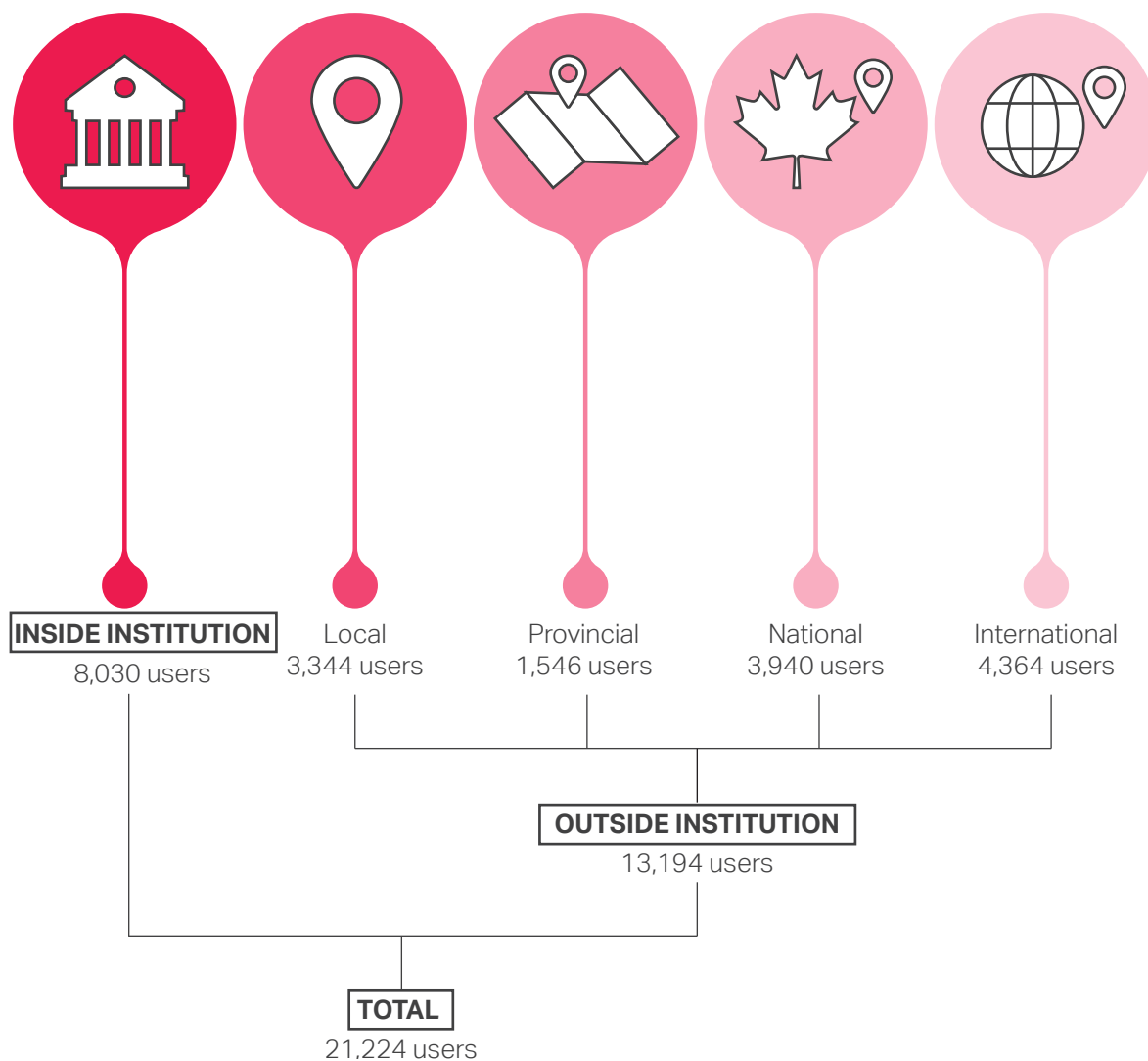
The quality of CFI-funded infrastructure was highly rated overall, with 87% of **highly specialized research equipment reported as state-of-the-art**.



Infrastructure use

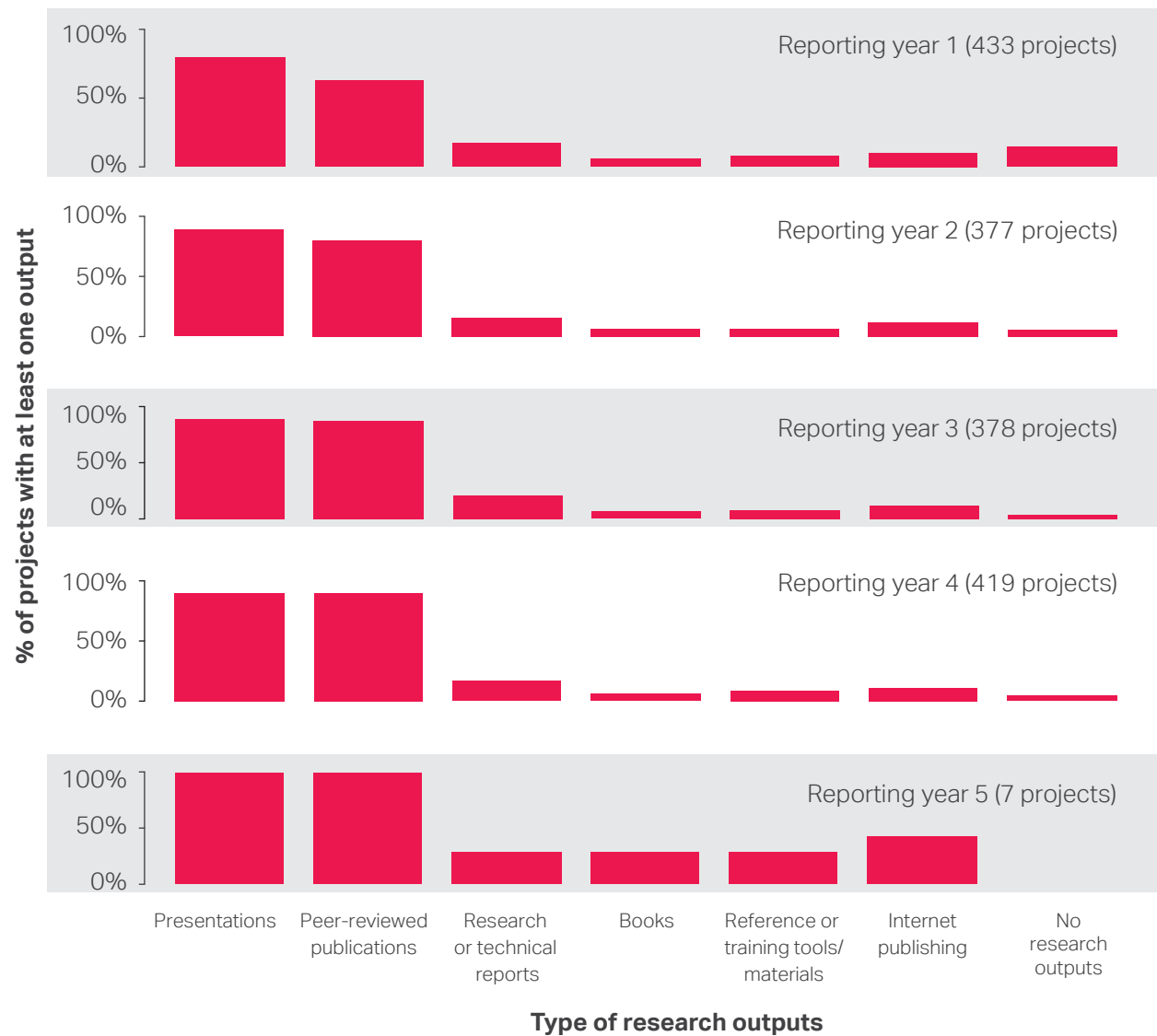
85% of researchers leading CFI-funded projects reported that their **CFI-funded infrastructure was used to maximum capacity**. Overall, 21,224 researchers (excluding students, postdoctoral fellows and technical and professional personnel) advanced their research using CFI-funded infrastructure.

The majority of international infrastructure users were from the United States, France, Germany, the United Kingdom and China.



Sharing research results

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

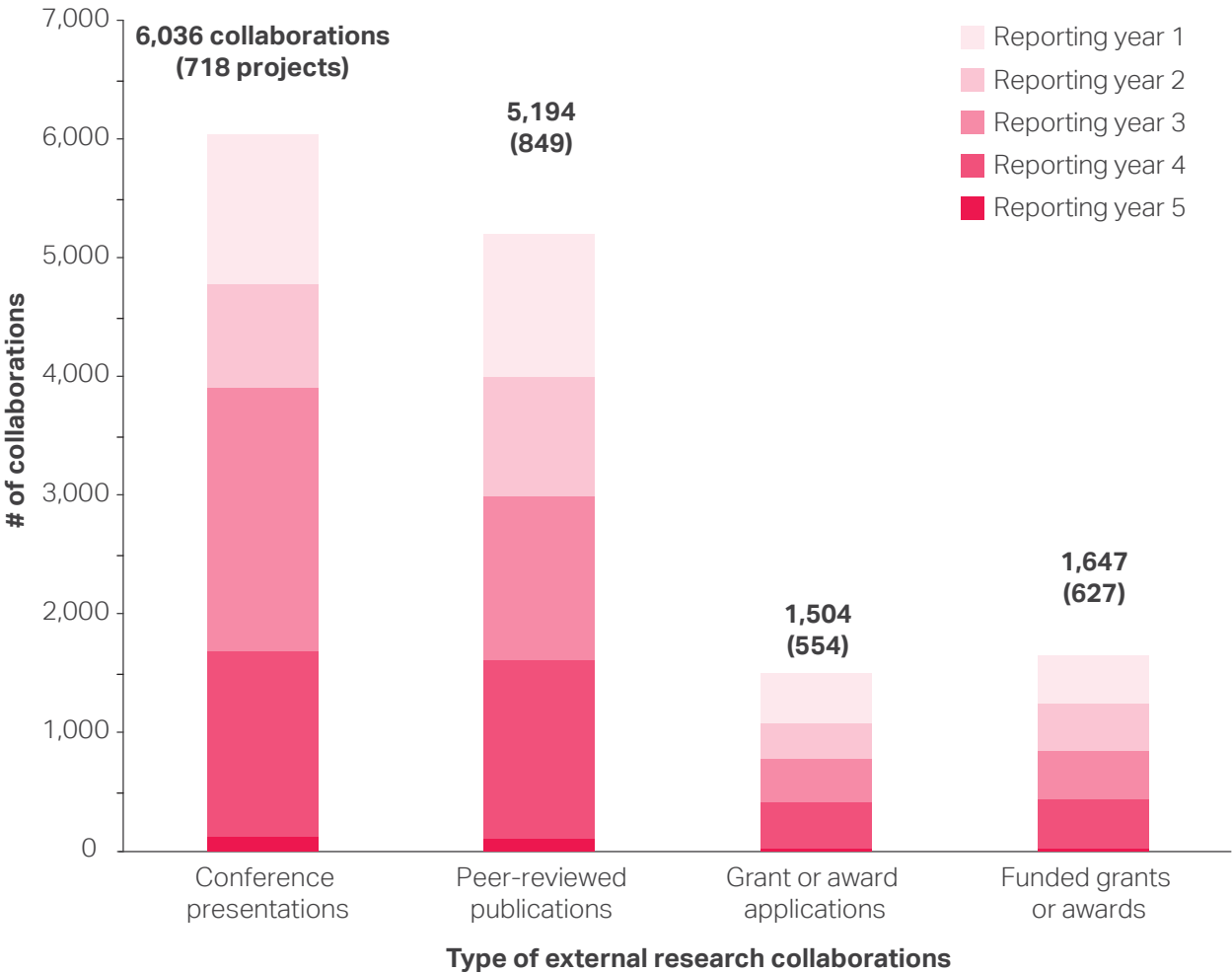


PRODUCTIVE NETWORKS AND COLLABORATION

Productive collaborations

Researchers have made use of CFI-funded infrastructure to **enable external research collaborations** that resulted in traditional academic activities and outputs. The most common is conference presentations with 6,036 reported by 718 researchers leading CFI-funded projects.

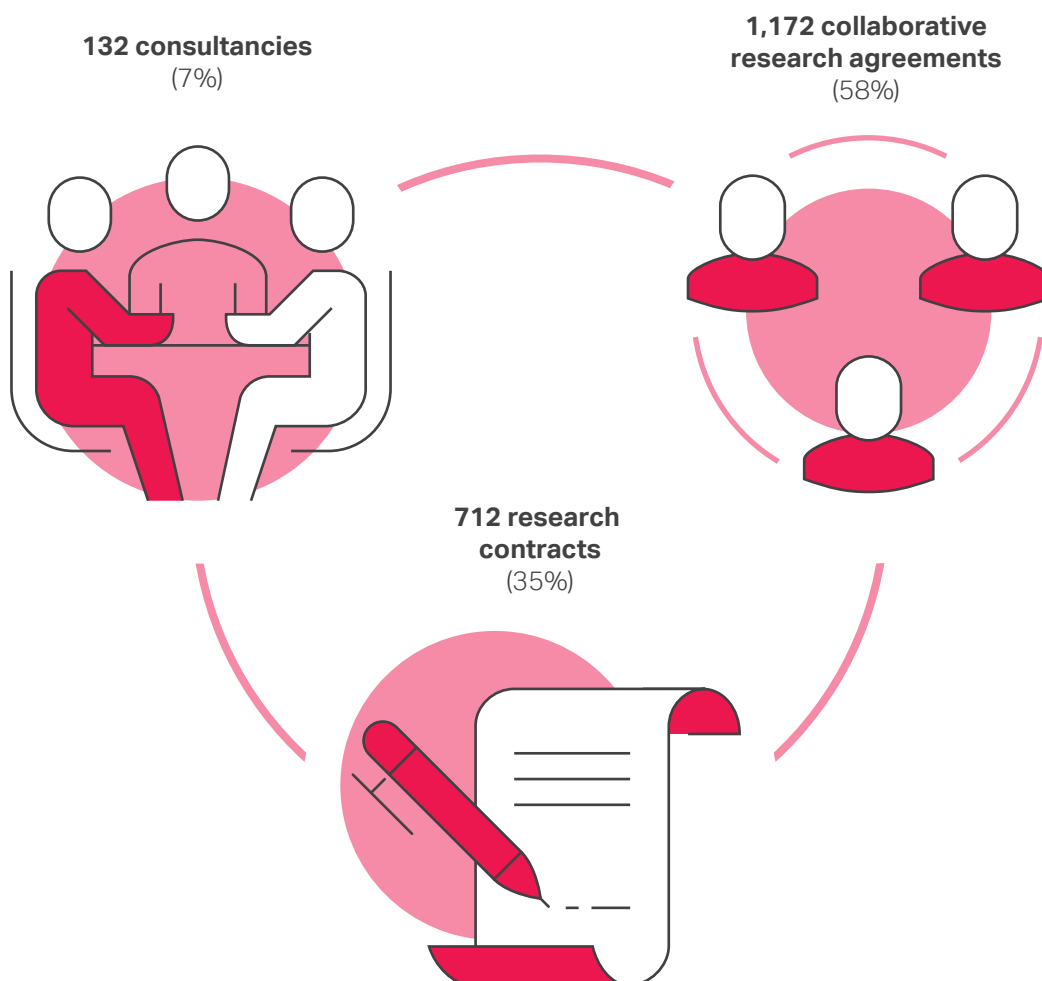
Among researchers leading CFI-funded projects that indicated external collaborations, 22% reported engaging in all four types, suggesting CFI-funded infrastructure **enables broad and varied collaboration**.



Research agreements

CFI-funded infrastructure **facilitated new formal collaborative research agreements** in 33% of projects, for a total of 2,016 agreements.

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

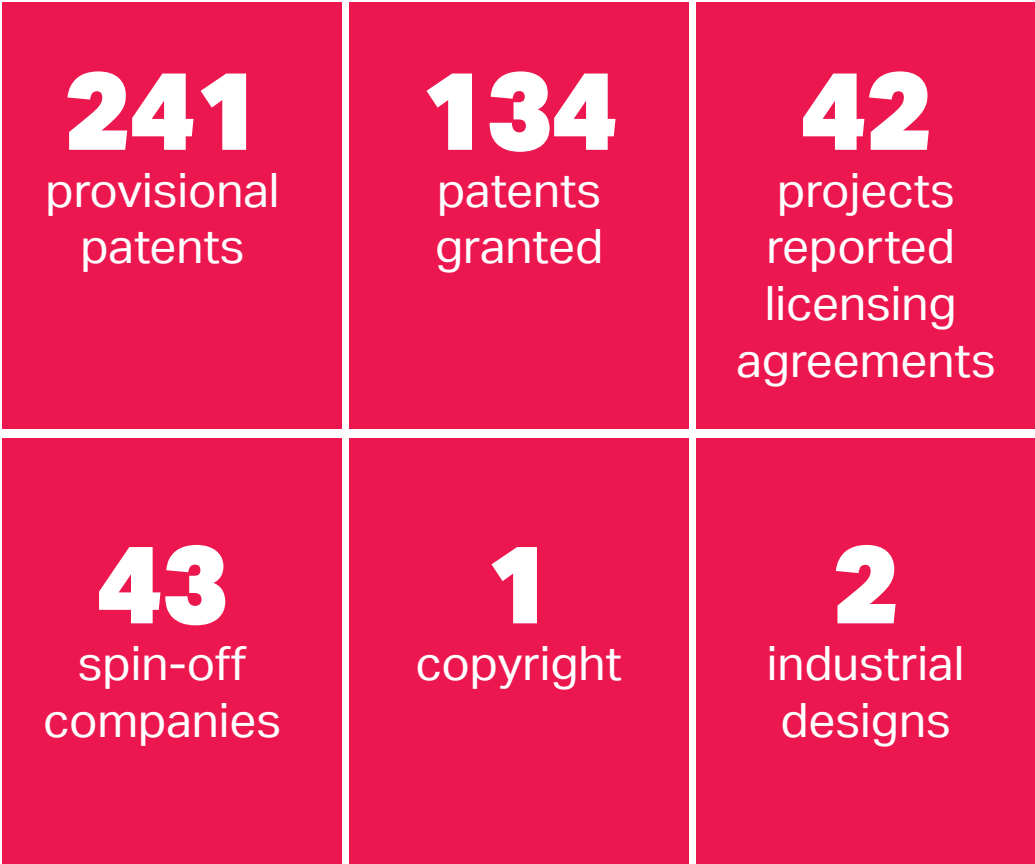


ECONOMIC GROWTH AND JOB CREATION

From research to innovation

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

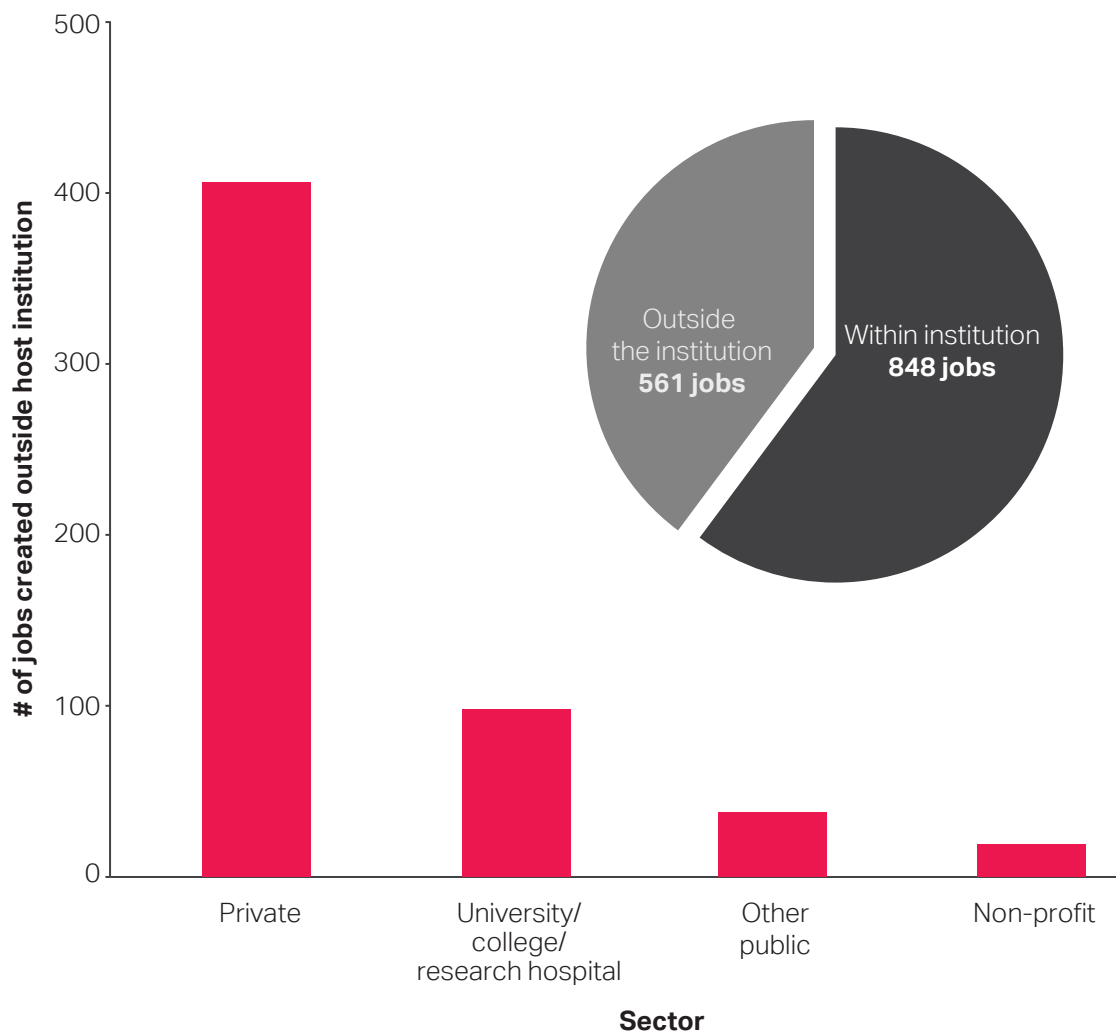
167 researchers leading CFI-funded projects reported at least one of the six types of research outcomes below.



New jobs

29% of researchers leading CFI-funded projects **reported one or more jobs created** due to CFI-funded infrastructure.

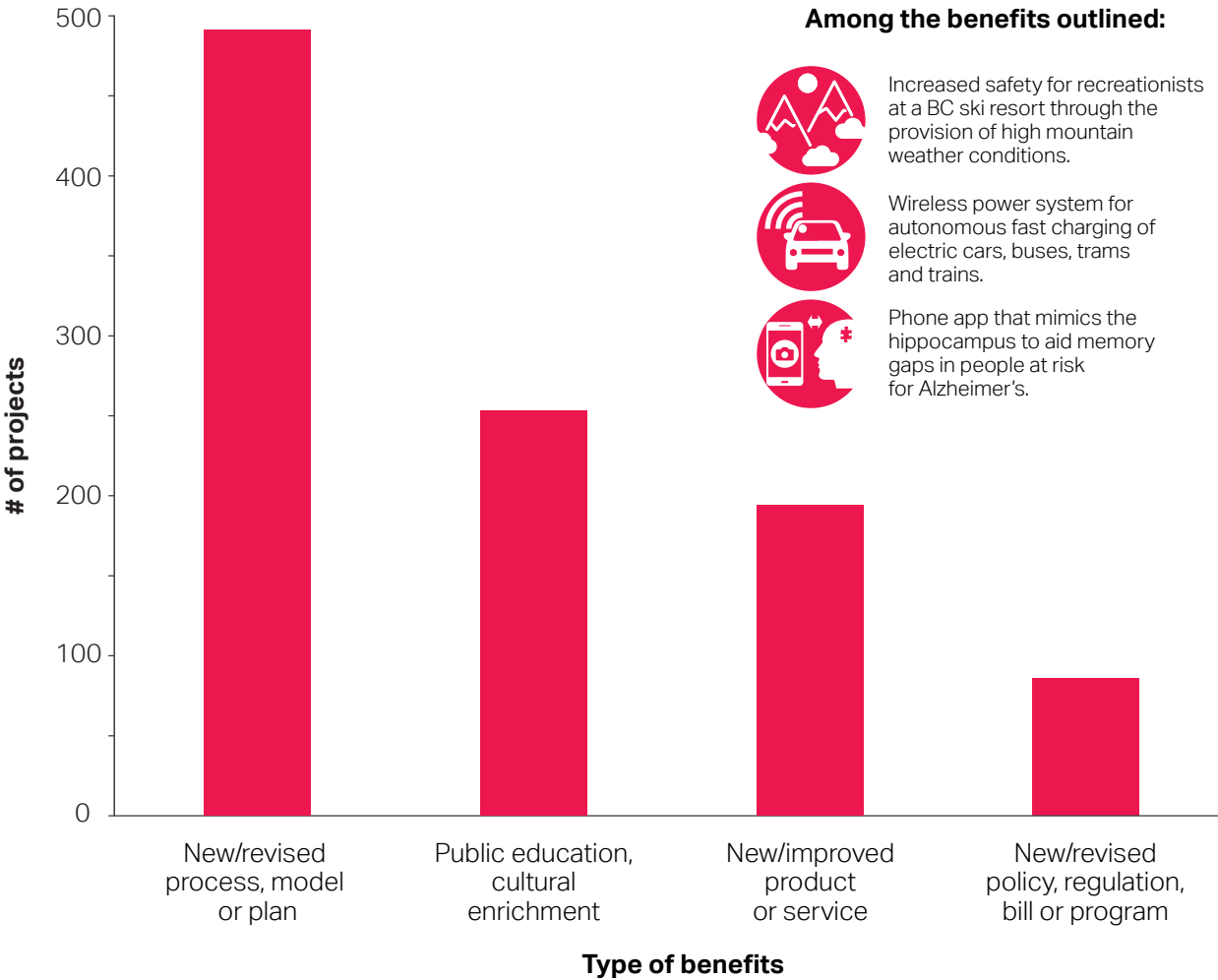
Just under two-thirds of all jobs created were within the host institutions. 72% of the 561 jobs created outside the institution were in the private sector.



BENEFITS TO CANADIANS

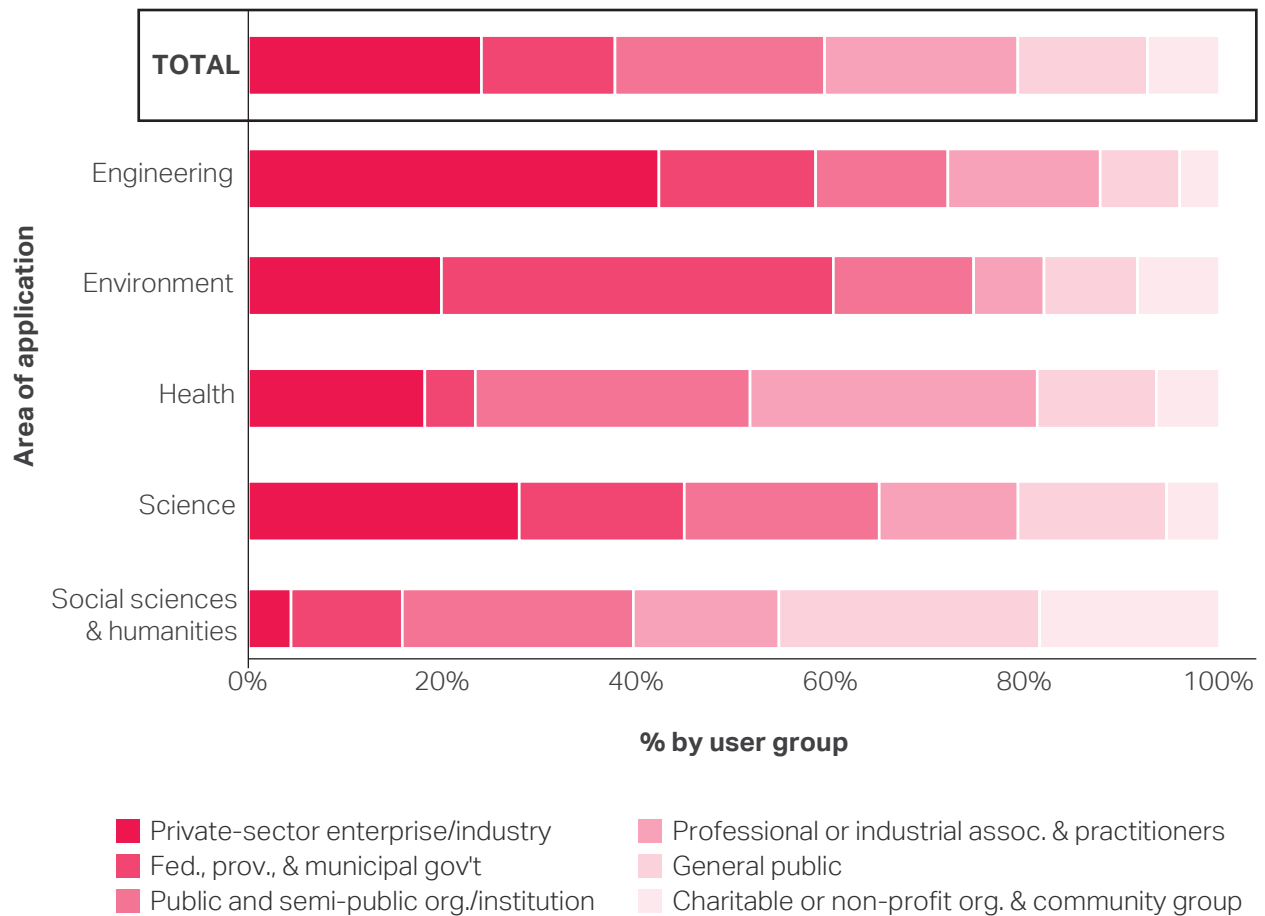
A range of benefits

Almost half (49%) of all researchers leading CFI-funded projects **reported at least one type of benefit**, highlighting the role of CFI-funded infrastructure in enabling research that produces outcomes for Canadians.



Users of research outcomes

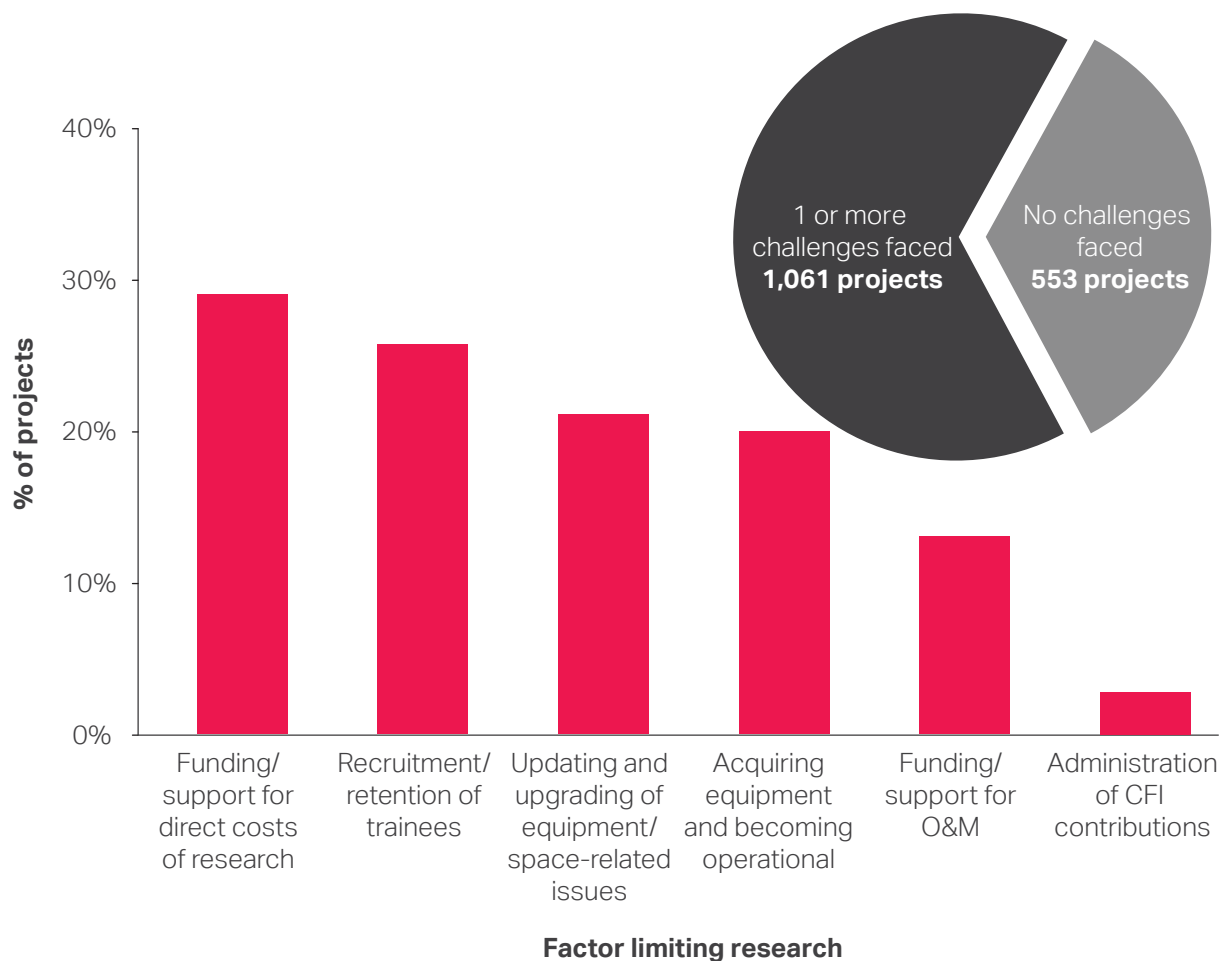
Overall, **the most frequently reported user group benefiting from the research results was the private sector, followed by public and semi-public organizations and institutions.** Research users varied by area of application of the research; for example engineering projects tended to benefit the private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



CHALLENGES

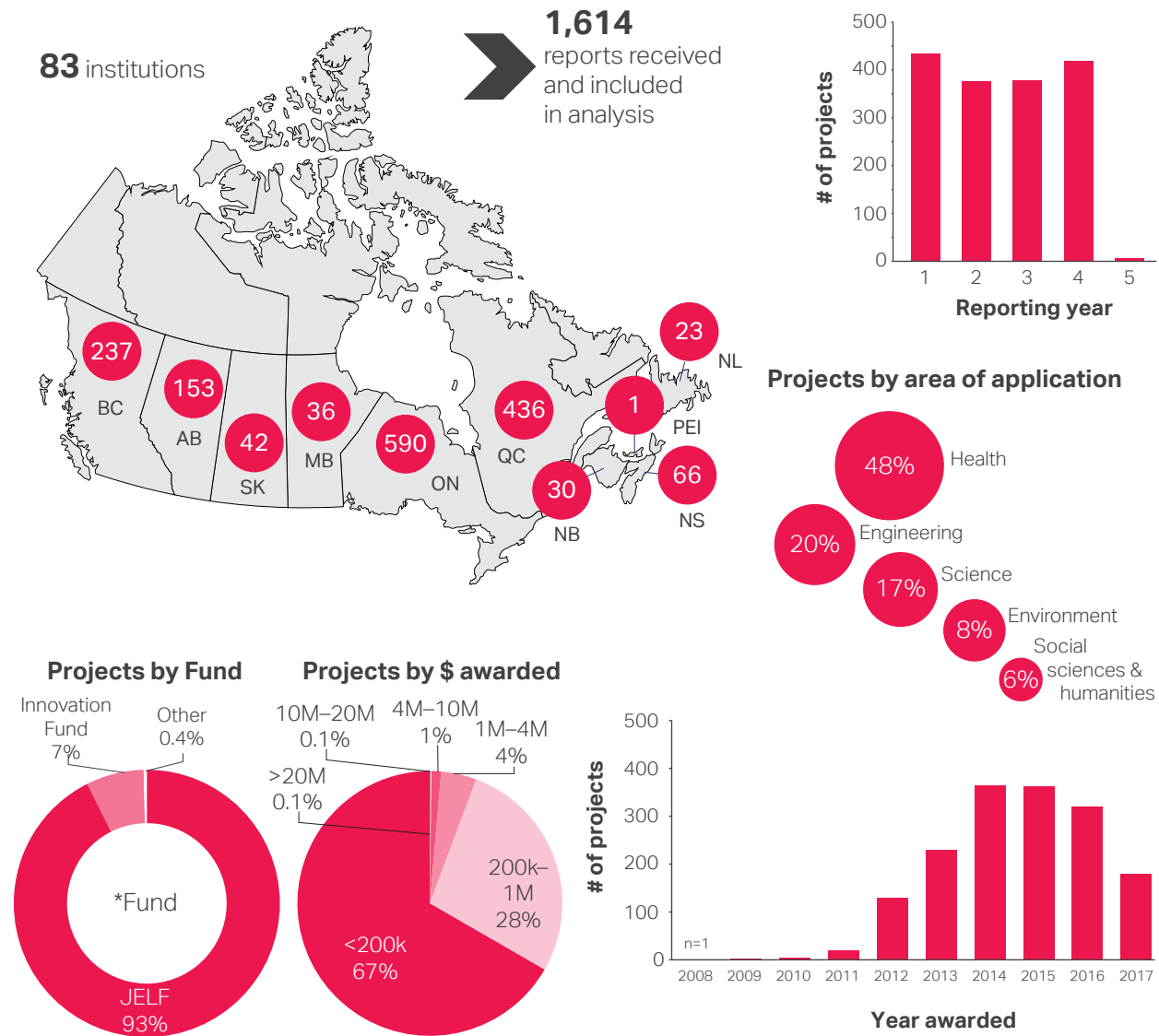
Most common factors limiting research

Two-thirds of the researchers leading CFI-funded projects reported one or more factors limiting the quality and impact of the research enabled by the infrastructure. **The most common factor reported was funding support for the direct costs of research.**



APPENDIX

Composition of the 2019 project progress report sample



*** Innovation Fund type:** Innovation Fund 2015/2017, Leading Edge Fund 2012 and New Initiatives Fund 2009/2012.

John R. Evans Leaders Fund (JELF) type: Leaders Opportunity Fund (LOF)-\$1M to \$2M, LOF-CRC, LOF-NSERC, LOF-SSHRC, JELF-Funding for research infrastructure, JELF-CRC, JELF-CERC, JELF-NSERC and JELF-SSHRC.

Other funds: Research Hospital Fund-Large Scale Institutional Endeavors 2006, 2013 Digging into Data Challenge, Cyberinfrastructure Initiative-Challenge 1 and Exceptional Opportunities Fund 2015.