



# SUPPORTING THE NEW GENERATION

**Research infrastructure serves as a powerful magnet.** It helps Canadian universities, colleges and research hospitals attract talented students and postdoctoral fellows from across Canada and around the world. With the right knowledge, skills and experiences, the new generation of researchers can build meaningful careers in a sustainable, innovative and inclusive economy.



## FINDING ENRICHED TRAINING OPPORTUNITIES

State-of-the-art research infrastructure, together with leading researchers, attracts talented students and post-docs, and creates a rich experiential environment in which to train the next generation of innovative thinkers.



## GAINING A COMPETITIVE ADVANTAGE

Hands-on use of state-of-the-art research infrastructure allows young scholars to gain knowledge and develop in-demand skills and expertise.



## BUILDING A BRIGHT FUTURE

Using state-of-the-art research infrastructure gives the next generation of innovative thinkers a competitive advantage to expand their research training or position themselves for job opportunities.


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### IN CFI-FUNDED FACILITIES, STUDENTS AND POST-DOCS:

- ✓ gain advanced knowledge working with leaders in all fields of research
- ✓ develop sought-after skills through hands-on experience with state-of-the-art equipment
- ✓ get real-life experience that opens up future job prospects in all sectors



# FINDING ENRICHED TRAINING OPPORTUNITIES



State-of-the-art research infrastructure, together with leading researchers, attracts talented students and post-docs, and creates a rich experiential environment in which to train the next generation of innovative thinkers.

*"The infrastructure has been invaluable for recruiting top undergraduate and graduate students, as well as postdoctoral fellows."*

— Tuan Trang, associate professor, University of Calgary

## An enriched research environment supports young scholars

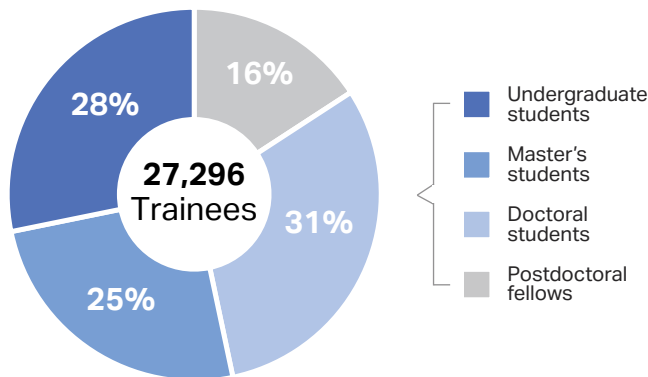
**92%**

of researchers report that CFI-funded infrastructure has a high to very high impact on the quality of the training environment.

**95%**

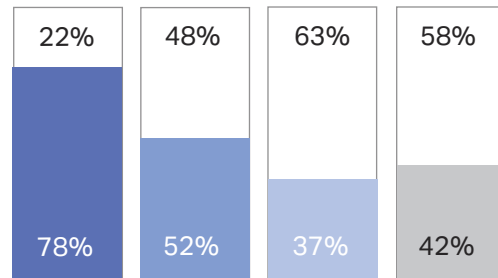
of researchers report that CFI-funded infrastructure is central to the research being conducted by their students and post-docs.

### WHO USES CFI-FUNDED INFRASTRUCTURE?



### INFRASTRUCTURE: CRITICAL FOR YOUNG SCHOLARS AS THEY ADVANCE

#### REPEAT USERS



#### NEW USERS

Each year, more than 27,000 students and postdocs\* used CFI-funded infrastructure as a key resource for their research — about 16 trainees per project.

Undergraduate students represent the highest proportion of new users, as they are introduced to infrastructure in their studies, while PhDs and post-docs use the same research infrastructure year over year to conduct more intensive research.

**Data source:** CFI project progress reports received between 2013 and 2017.

\*Five-year average, from 2013–17.



# GAINING A COMPETITIVE ADVANTAGE



Hands-on use of state-of-the-art research infrastructure allows young scholars to gain knowledge and develop in-demand skills and expertise.

*"My research would not be possible without this infrastructure, which is helping train [students and post-docs] in the use of state-of-the-art instrumentation and technology. It will spur the next generation of creative and innovative thinkers and researchers."*

— Tanya Dahms, professor, University of Regina

## HANDS-ON LEARNING



Access to infrastructure allows young scholars to turn their theoretical learning into real-world practice. As a result, they:

- gain skills that are highly sought-after in the labour force
- develop management skills by executing complex projects
- understand research methodology and improve analytical and problem-solving skills
- hone communication and collaboration skills.

## FOSTERING COLLABORATION



State-of-the-art research environments promote collaborations. Using CFI-funded infrastructure opens

up opportunities for students and post-docs to interact and collaborate with diverse groups, including researchers in other departments within an institution and at other universities, along with private companies and other students.

## GAINING A COMPETITIVE ADVANTAGE

Equipped with enhanced skills, expertise, knowledge and collaboration experience, students and post-docs have a competitive advantage to pursue further studies or enter the job market. Key advantages:



### Expertise operating highly specialized equipment

By calibrating equipment, and setting up and running experiments, they develop expertise that allows them to succeed.



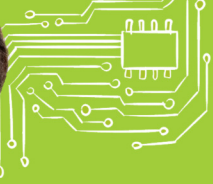
### Advanced research and analytical skills

By planning and executing complex projects, they develop a deeper understanding of research methodologies and improve analytical and problem-solving skills.



### Skilled communicators

By interacting and working with individuals at different levels and from different sectors they become clear communicators, increasing their proficiency at tailoring messages to specific audiences.



# BUILDING A BRIGHT FUTURE



Using state-of-the-art research infrastructure gives the next generation of innovative thinkers a competitive advantage to expand their research training or position themselves for job opportunities.

*"The CFI-funded infrastructure acts as a magnet to draw candidates from Canada and abroad. When they finish their studies, they are snapped up by companies, government agencies and universities, thanks to the exceptional technical expertise acquired while working with the infrastructure."*

— Chandra Madramootoo, professor, McGill University

## WHERE DO THEY GO?

Over the past five years, more than 19,000 students and post-docs who used CFI-funded infrastructure completed their graduate degree or postdoctoral training. Among them, about half continued their academic training while the other half entered the workforce.



9,737 pursued further training

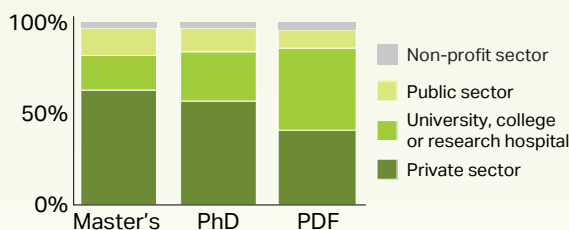


9,490 obtained employment

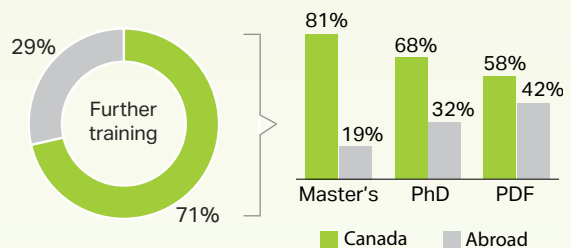
Among those who completed their graduate degree or postdoctoral training and obtained employment, 78% secured work in Canada. The remaining 22% (2,074) found work abroad.



Those who gained employment in Canada with a Master's or PhD were more likely to obtain a position with the private sector while post-docs were more frequently hired by universities, colleges or research hospitals.



Of those pursuing further training, 71% stayed in Canada. However, as they progressed through the research training pathway, graduates and post-docs were more likely to pursue training opportunities abroad.



Data source: CFI project progress reports received between 2013 and 2017.