CANADA FOUNDATION FOR INNOVATION
FONDATION CANADIENNE POUR L'INNOVATION

Going Beyond Numbers:

Enhancing reporting practices to demonstrate results and impacts

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Performance, Analytics, and Evaluation

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Objectives

- Share CFI's experience in using MSIF annual and final reports to demonstrate the value and impact of national research facilities while recognizing their uniqueness
- Discuss approaches to enhance reporting practices, in particular the need to go beyond KPI values

Context

Stakeholders look for **evidence of value / return on investments** when it comes to substantial contributions such as in national research facilities

Accountability — Demonstrating the proper use of funds, delivering "effective" performance, and achieving impact

Advocacy — Convince decision-makers on relevance and continued need for NRF (=> $)

The **KPI data and narratives** in annual and final reports are the main sources of **information / evidence** the CFI relies on to report on the **activities, achievements, outcomes, and benefits of** national research facilities

Information CFI obtains through annual reports

ACTIVITIES › **OUTPUTS** › **OUTCOMES** › **IMPACT**

Part B

Key performance indicators (KPIs)

- User access
- User demand
- Optimal use
- Human resources
- User satisfaction
- Research outputs
- Engagement and outreach activities
- HQP trained
- Technology transfer
  (e.g., patent, licences, spin-offs)

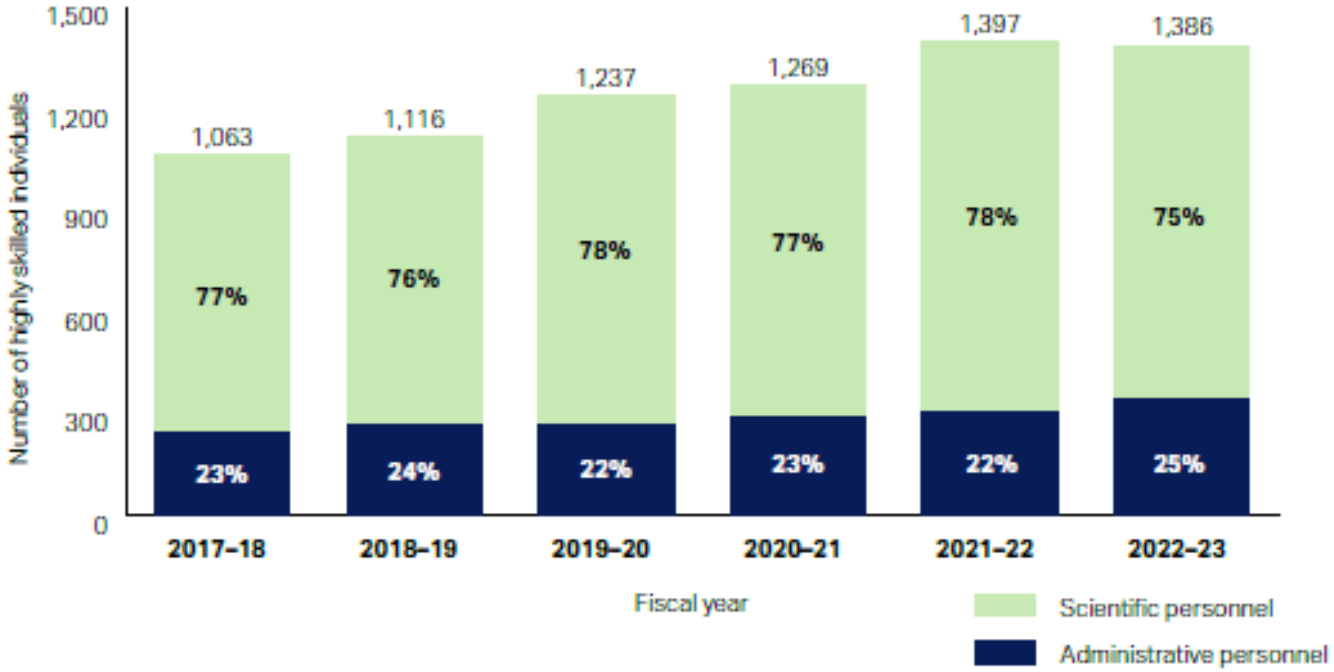
Part A

- **Context** of KPIs, such as measures taken to maintain, enhance, or address gaps
- Major funding attracted by the facility
- New collaborations and partnerships developed, highlighting those with private sectors and/or international organizations.
- **Narratives on what and how:** key achievements in research and technology development, career path of HQPs, technology transfer enabled, knowledge translation or mobilizations beyond academia, social, health, economic or environmental benefits for Canadians

KPI data : Examples of use and challenges

Facility staff

MSIF 2017-23 report



"Investing for impact" https://www.innovation.ca/apply-manage-awards/funding-opportunities/major-science-initiatives-fund#!nav-fund-highlights

Current MSIF – Year 2 highlights

Scientific & technical capacity

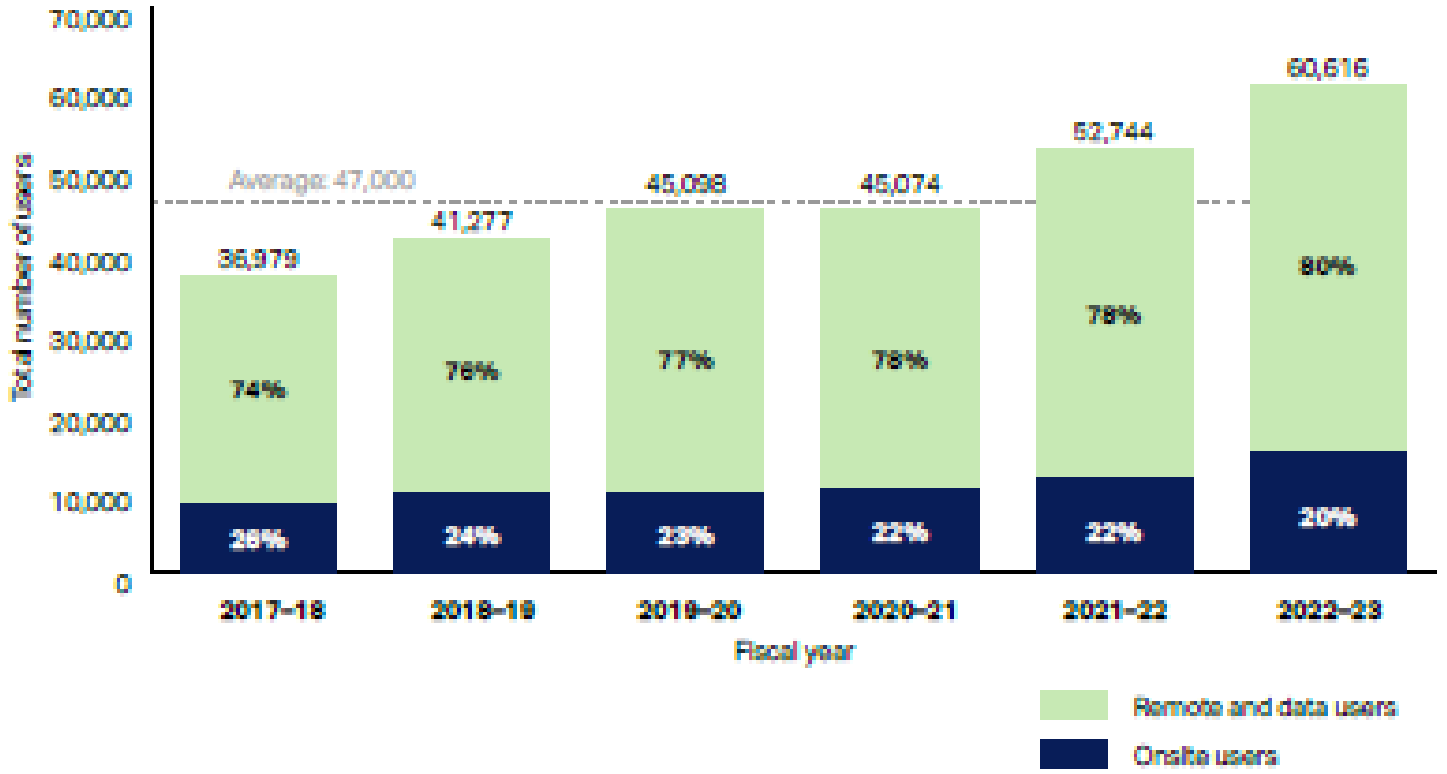
Administrative personnel	Technical & Scientific personnel
394	**1,087**

The technical & scientific staff makes up 73% of the total workforce employed by the facilities.

Internal CFI document prepared for the CFI board committee meeting (March 2026).

Users - Overall

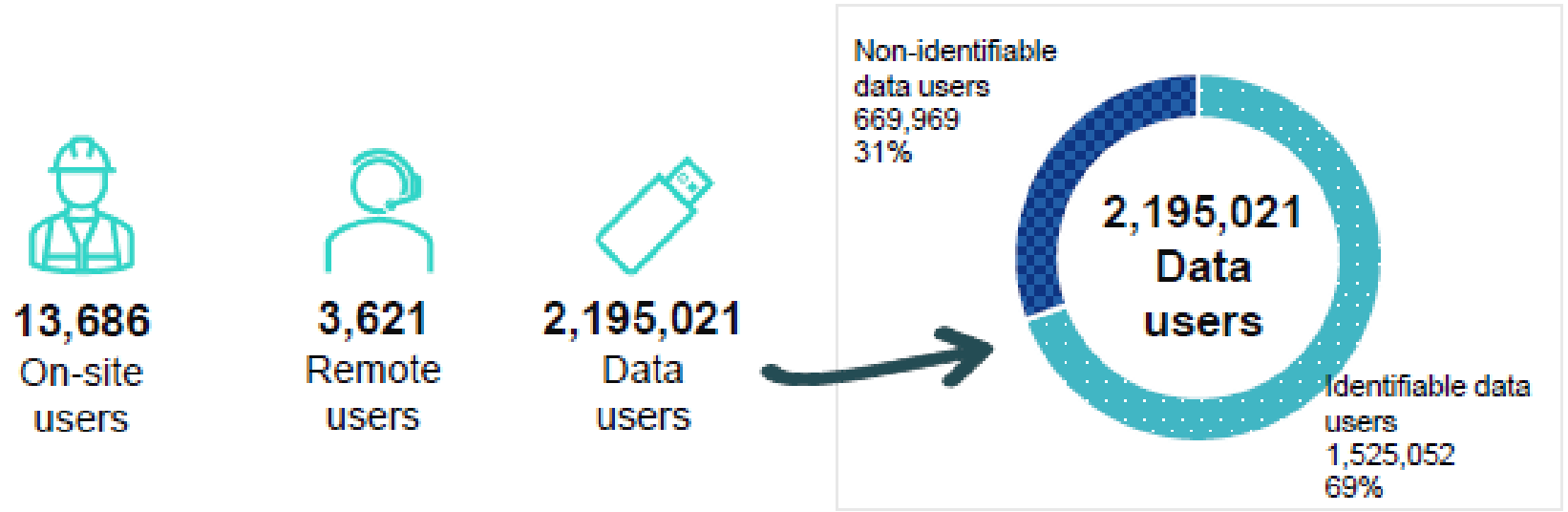
MSIF 2017-23 report



Users - Overall

Current MSIF – Year 2 highlights

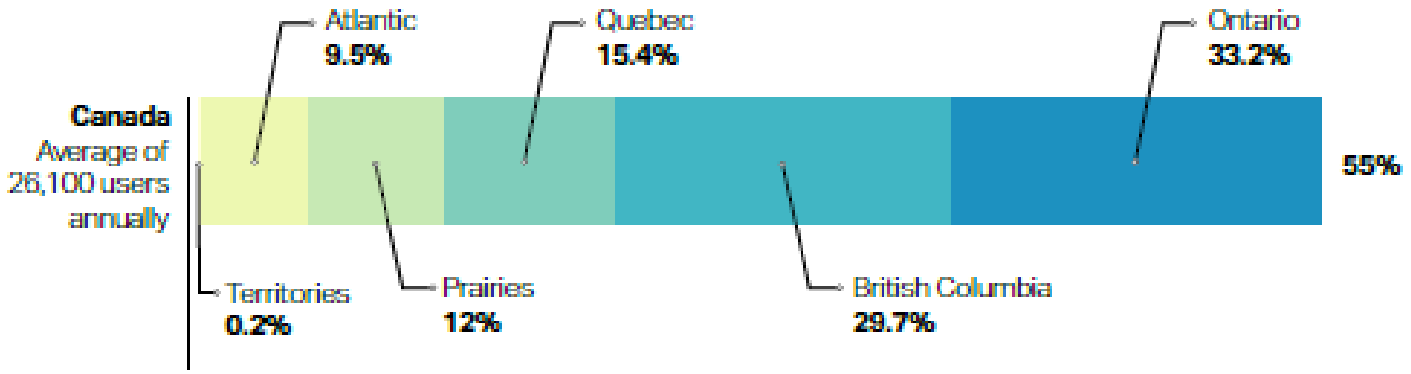
In FY 2024-25, over 2.2 million users accessed 19 national research facilities.



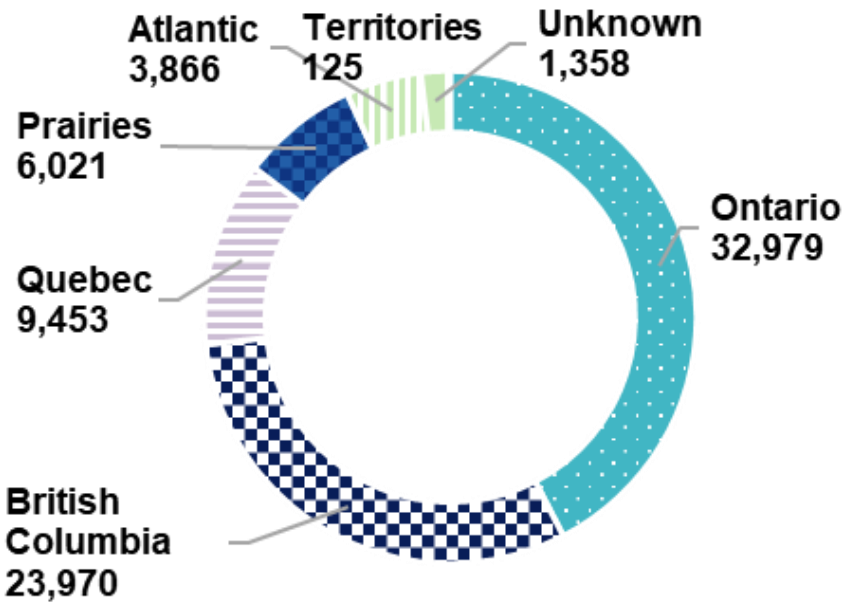
Four facilities (CBG, ONC, TMIC, and GWFO) stand out by their large number of data users. Two facilities accounted for the majority of data users: CBG represented 99% of the identifiable data users, while TMIC accounted for 84% of the non-identifiable data users.

Users from Canada

MSIF 2017-23 report

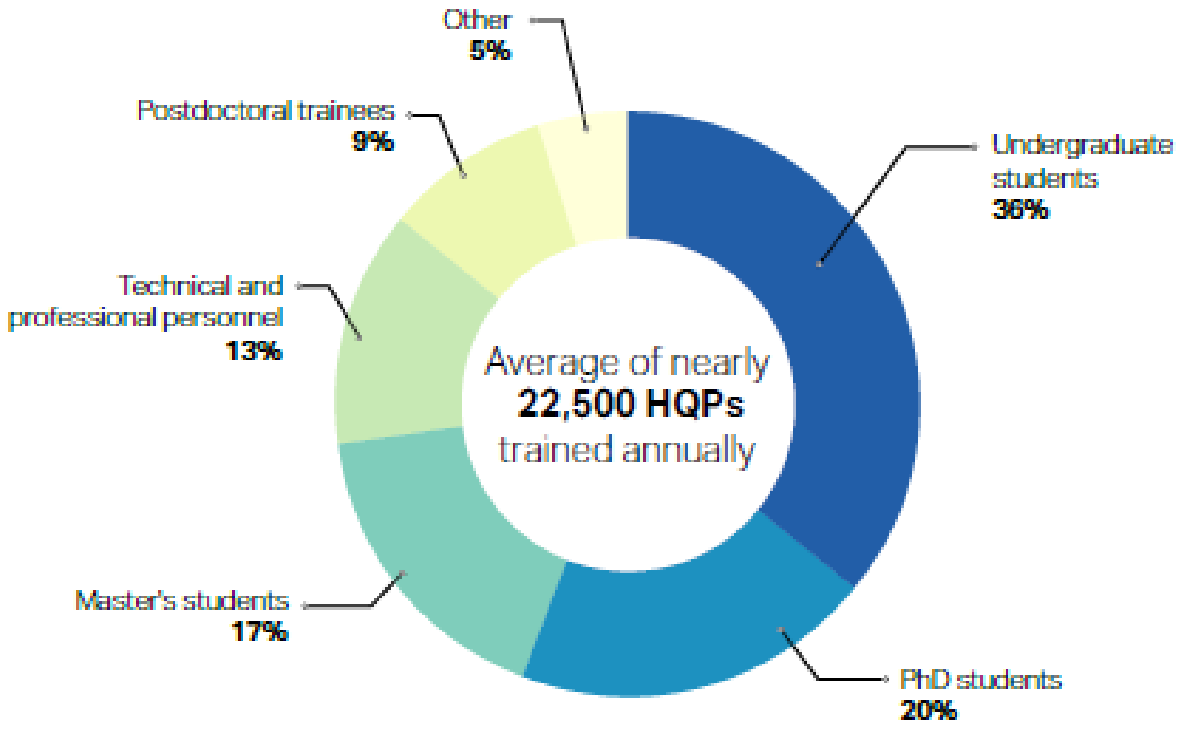


Current MSIF – Year 2 highlights

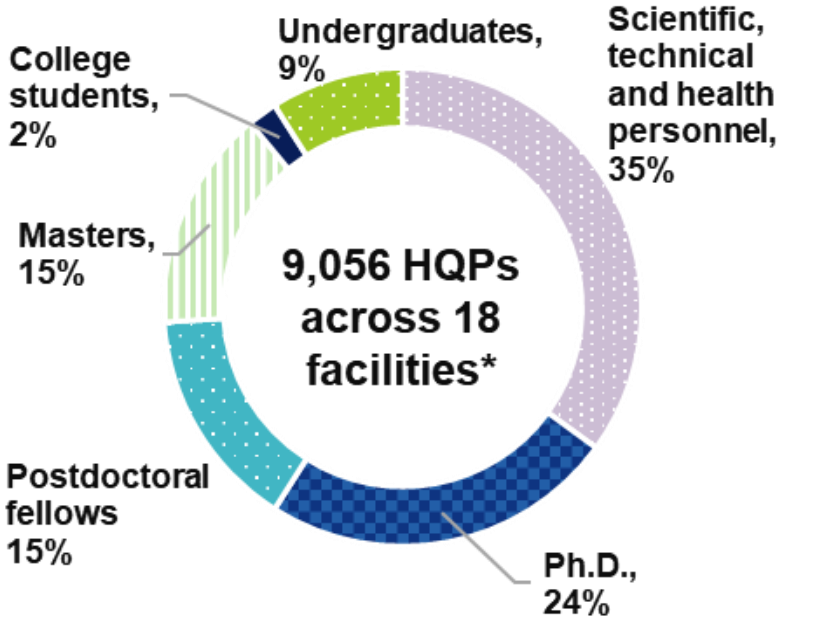


HQPs

MSIF 2017-23 report



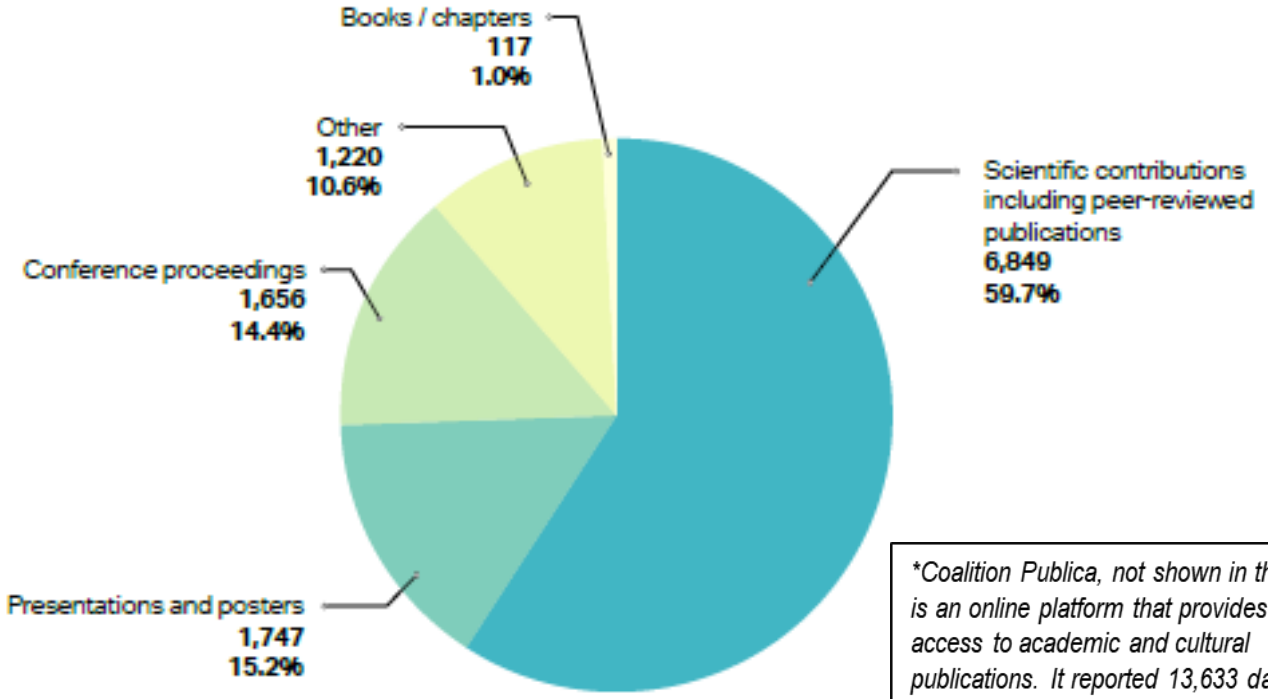
Current MSIF – Year 2 highlights



** CBG enabled training and skills development for 16,975 HQPs through its data portal, BOLD. Some trainees collect specimens, do laboratory work, and upload specimen records to BOLD, while others work with data that is already in BOLD. Given CBG's distinct trainee profile (large in number, largely undergraduate), CBG trainee data is not included in the figure.*

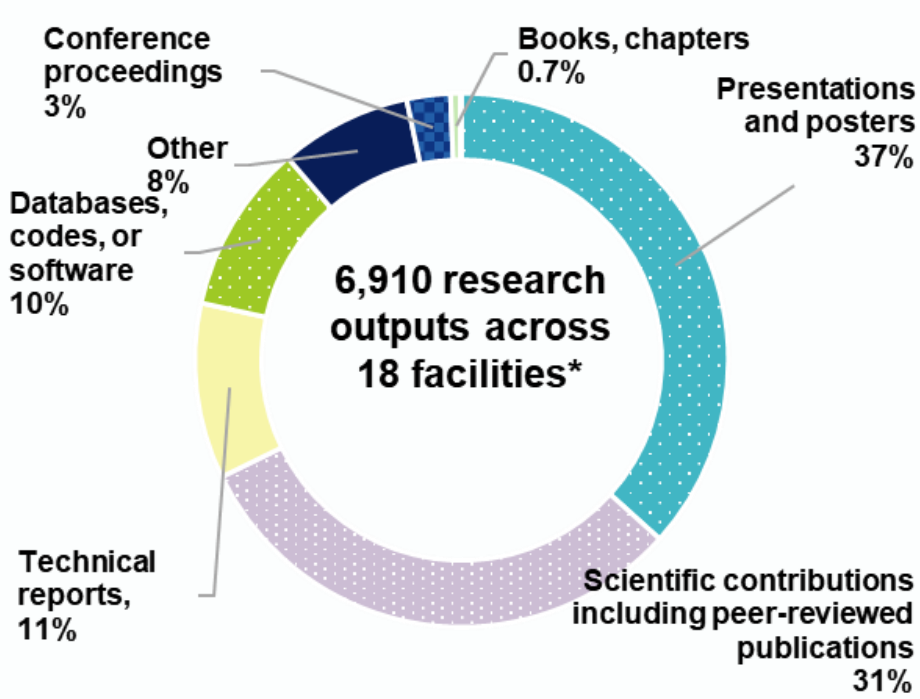
Research outputs

MSIF 2017-23 report



**Coalition Publica, not shown in the figure, is an online platform that provides free access to academic and cultural publications. It reported 13,633 databases, code, or software items, and 8,831 other research outputs. These numbers reflect ongoing updates and improvements to code and databases, rather than one-time releases.*

Current MSIF – Year 2 highlights



Uniqueness

Current MSIF – Year 2 highlights

	N	Total	Max	Min	Average	Median
Users	19	2,212,329	1,518,787	207	116,438	1,471
HQPs	19	26,031	16,975	15	1,370	359
Optimal use	17	N/A	107%	36%	77%	78%
Staff	19	1,480	255	6	78	68
Outputs	19	29,482	22572	67	1,552	374
Outreach	19	4,301	1279	19	226	127
Tech transfer	14	110	35	0	8	3

KPI do not tell the full story

	ACTIVITIES	OUTPUTS	OUTCOMES
MSIF KPIs & narratives	• User demand • User access • Optimal use • Staff • User satisfaction	• HQP trained • Research outputs • Outreach	• Collaborations • Leveraged funds • Knowledge and technology transfer • New businesses
What KPI values can point to	○ Changing user demand ○ Success or struggle in achieving effective usage of facility resources ○ Perspective of user regarding facility	○ Attractiveness of facility to users including trainees ○ Extent of research outputs and outreach activities	○ Ability to expand collaborations and partnerships ○ Capability to leverage funds ○ Capability to achieve or bring about knowledge mobilization including through patents, licenses, and spin-offs

Performance relative to targets

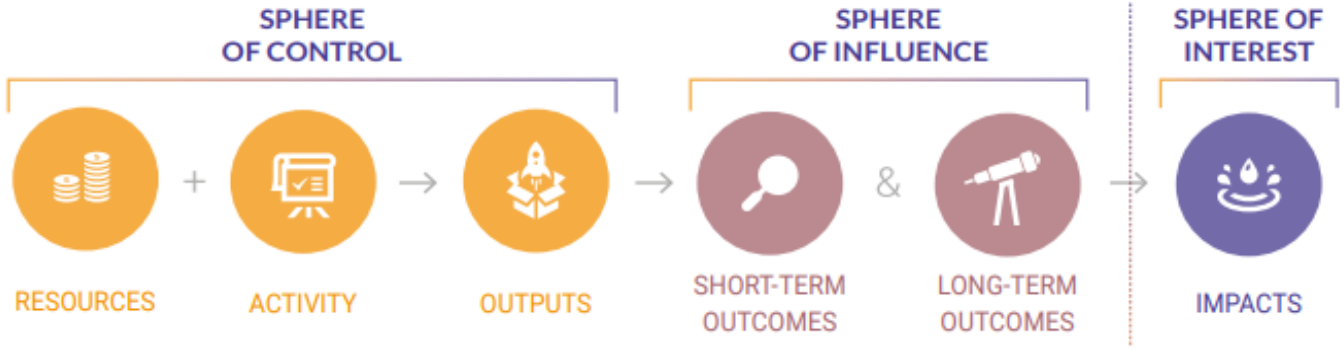
Going beyond numbers

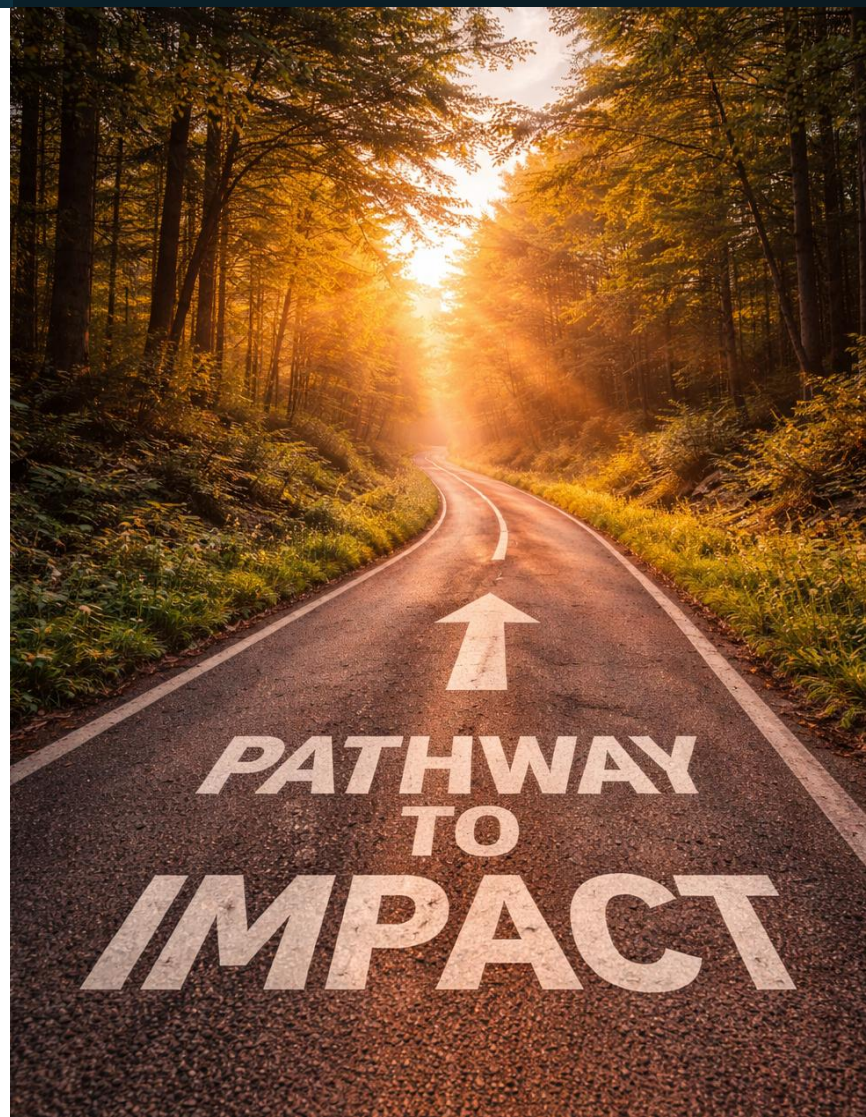
KPIs + Narratives = Solid evidence

- Help CFI understand the **“So-what”** associated with KPIs and targets.
- Give specific examples of facility activities and achievements:
  - Describe the significance of select research outputs and outcomes
  - Highlight **what changed as a result** = unique outcomes or impact
  - Keep in mind the “pathway”

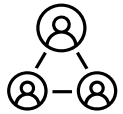
Progress toward benefits realization

- Impacts/benefits evolve over several years
- Highlight how incremental achievements lead to adoption of research evidence/technologies by industry, public or non-profit sectors, practitioners, etc.
- Don’t forget about details/narrative provided in previous CFI annual reports (keep telling the story…)
- More is not necessarily better





Some examples of impacts / benefits



Collaborations with Canadian and international government research organizations:
SuperDARN collaborated with the Department of National Defence's science and technology organization …….. This collaboration ***led to a proof-of-concept study showing that high-frequency radars are a viable option to replace the North American Aerospace Defence Command's (NORAD) North Warning System.***

Advancing autism research:
CGEn leads the MSSNG project (pronounced "missing") for autism spectrum ……. It has ***produced the world's largest autism whole-genome dataset and has enabled research that has revealed 134 autism-linked genes.***

Contributing to commercial success:
TMIC's expertise in metabolomics research and technology development has ***enabled a spin-off company, OMx Health Analytics,*** to streamline their operations……***reducing costs for users and making metabolomics more accessible***……OMx has ***created more than 30 high-tech positions and secured a $9 million funding*** round in 2022, substantially bolstering Alberta's economic landscape.

Floor is yours : Your thoughts, feedback, questions

Overall KPIs

- Which KPIs are the most challenging to report on? Why ?

Definitions

- The definition of data users differs among facilities. Do you have any suggestions for setting more universal definition of data users that could apply across facilities?

Targets

- Sometimes, targets are reached too quickly. Is it challenging to set "aspirational" targets? If so, why?
- How do you determine the optimal usage targets for your facility?

MSIF progress report Year 3: Enhancements

Part A (Main text)

- More detailed instructions in Part A

  e.g. "*Knowledge translation/mobilization and pathway to impact":* asking a website link to reports, news stories, or other media that support the benefit provided.

Part B (KPIs)

- Addition of an extra tab to report on international users
- Addition of an extra tab to provide additional details about technology transfer achievements (patents granted, licenses granted, spin-offs created)