



# Researcher Needs Assessment

Alliance Stakeholders' and Members' Meeting  
February 28, 2022



Digital Research  
Alliance of Canada

Alliance de recherche  
numérique du Canada





Why conduct a researcher  
needs assessment?

# The Canadian DRI is complicated. But how does this impact researchers?



... and many more



A needs assessment allows us to understand the current needs and gaps in the national DRI landscape, including:

- Geographical distribution
- Spectrum
- Temporal duration
- Magnitude
- Existing capacities and resources

The Needs Assessment, together with the **Research Data Management, Research Software, and Advanced Research Computing** position papers, will also serve as a baseline to measure our progress, and inform future work.



# Acknowledgements



Qian Zhang



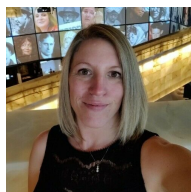
Shahira Khair



Seppo Sahrakorpi



Karey Iron



Jennifer Arbour

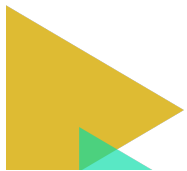
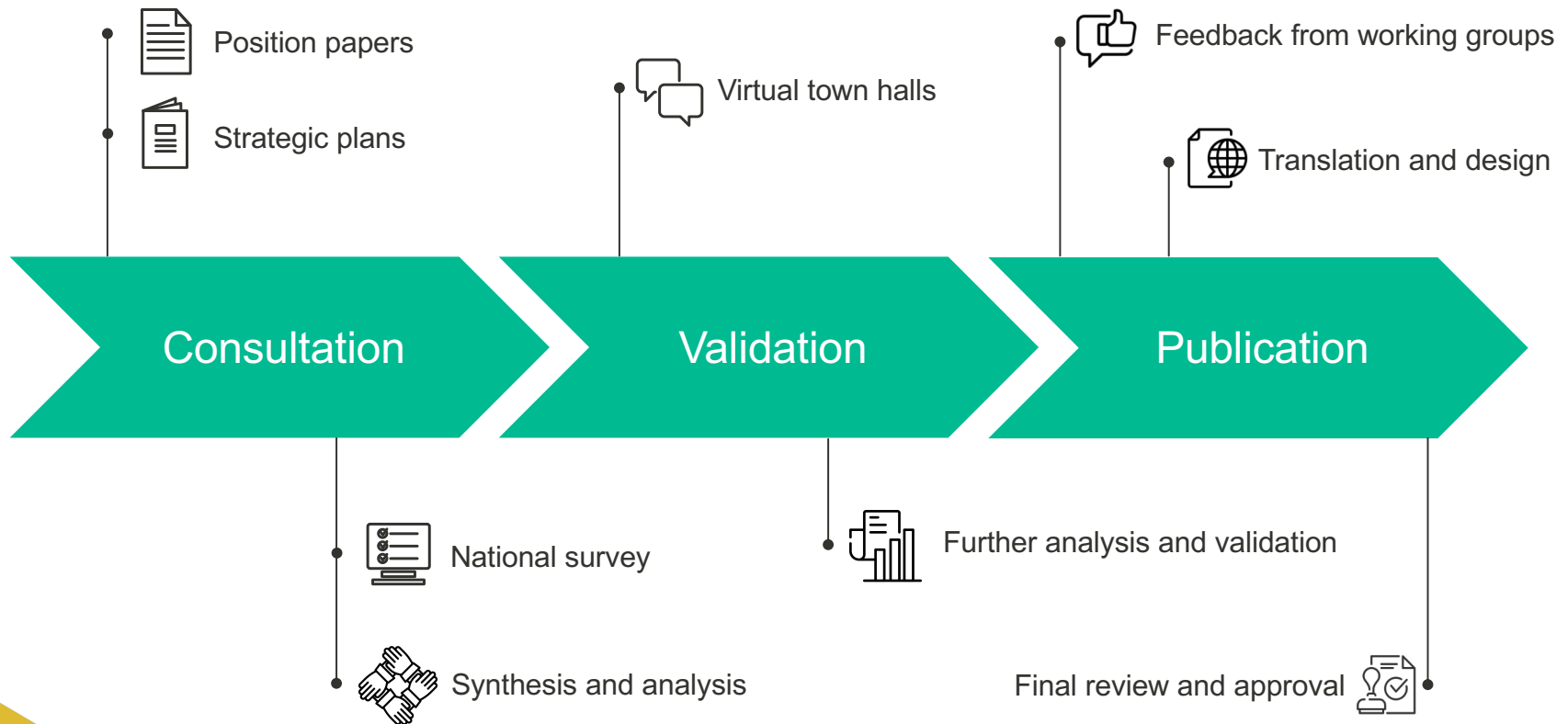
- <sup>5</sup>Alexandra Cooper (Queen's U.)
- <sup>4</sup>Amol Verma (U. Toronto; Unity Health Toronto)
- <sup>4</sup>Benjamin Fung (McGill U.)
- <sup>4</sup>Benoît Dupont (U. Montréal)
- <sup>2</sup>Brian Corrie (Simon Fraser U.)
- <sup>4</sup>Bruno Blais (Polytechnique de Montréal)
- <sup>2,3</sup>Catherine Lovekin (Mount Allison U.)
- <sup>3</sup>Chris Loken (Compute Ontario)
- <sup>1</sup>Elodie Portales-Casamar (U. British Columbia; BC Children's Hospital)
- <sup>1</sup>Emmanuel Château-Dutier (U. Montréal)
- <sup>4</sup>Erin Dickie (Centre for Addiction and Mental Health)
- <sup>4</sup>Girma Bitsuamlak (Western U.)
- <sup>1</sup>Ian Milligan (U. Waterloo)
- <sup>2</sup>James Colliander (U. British Columbia)
- <sup>1</sup>Jeff Moon (Alliance)
- <sup>1</sup>Karen Payne (WDS – International Technology Office)
- Kestrel McNeill (Compute Ontario)
- <sup>4</sup>Laura Estill (St. Francis Xavier U.)
- <sup>5</sup>Laurence Horton (U. Toronto)
- <sup>1</sup>Lee Wilson (Alliance)
- <sup>5</sup>Lucia Costanzo (Alliance; U. Guelph)
- <sup>2</sup>Marc-Étienne Rousseau (McGill U.)
- <sup>4</sup>Marie-Jean Meurs (U. du Québec à Montréal)
- <sup>1,2</sup>Mark Leggott (Alliance)
- <sup>3</sup>Maxime Boissonneault (Calcul Québec)
- <sup>1</sup>First Nations Information Governance Centre
- <sup>4</sup>Pekka Sinervo (U. Toronto)
- <sup>4</sup>Philippe Després (U. Laval)
- <sup>4</sup>Randall Sobie (U. Victoria)
- <sup>4</sup>Rebecca Davis (U. Manitoba)
- <sup>4</sup>Rebecca Pillai Riddell (York U.)
- <sup>1</sup>Rozita Dara (U. Guelph)
- <sup>2</sup>Scott Henwood (CANARIE)
- <sup>3,4</sup>Susan Brown (U. Guelph)
- <sup>1</sup>Susan Haigh (Canadian Association of Research Libraries)

- 1- Research Data Management Working Group*
- 2- Research Software Working Group*
- 3- Advanced Research Computing Working Group*
- 4- Alliance's Researcher Council*
- 5- Alliance-Portage Research Intelligence Working Group*





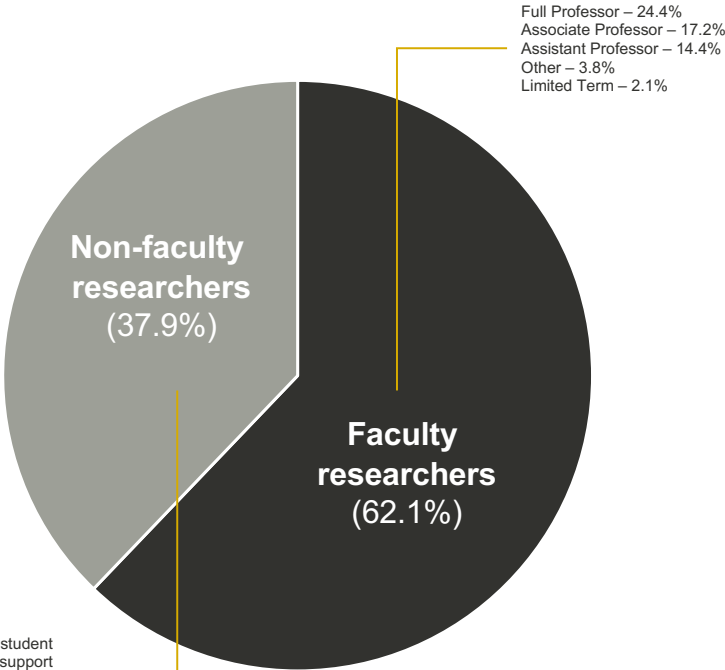
# How did we conduct the Needs Assessment?



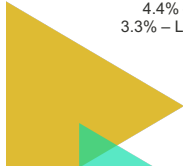
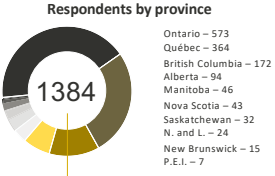
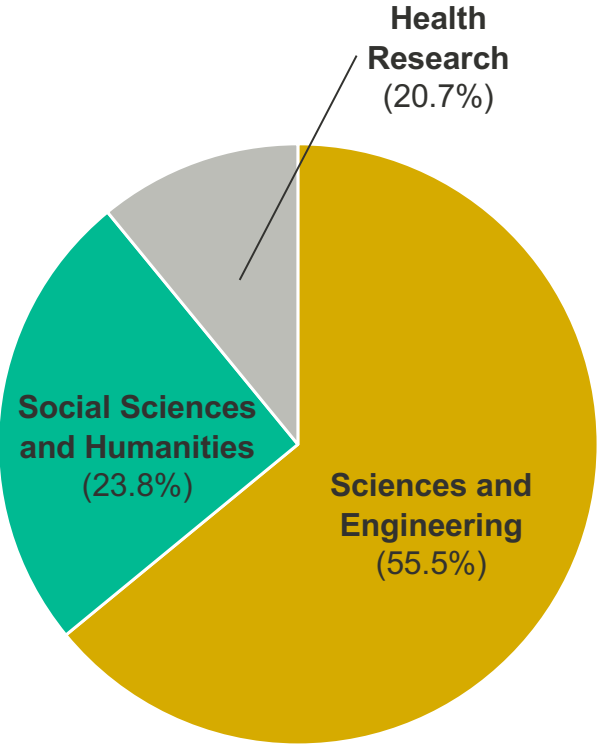


# The Needs Assessment

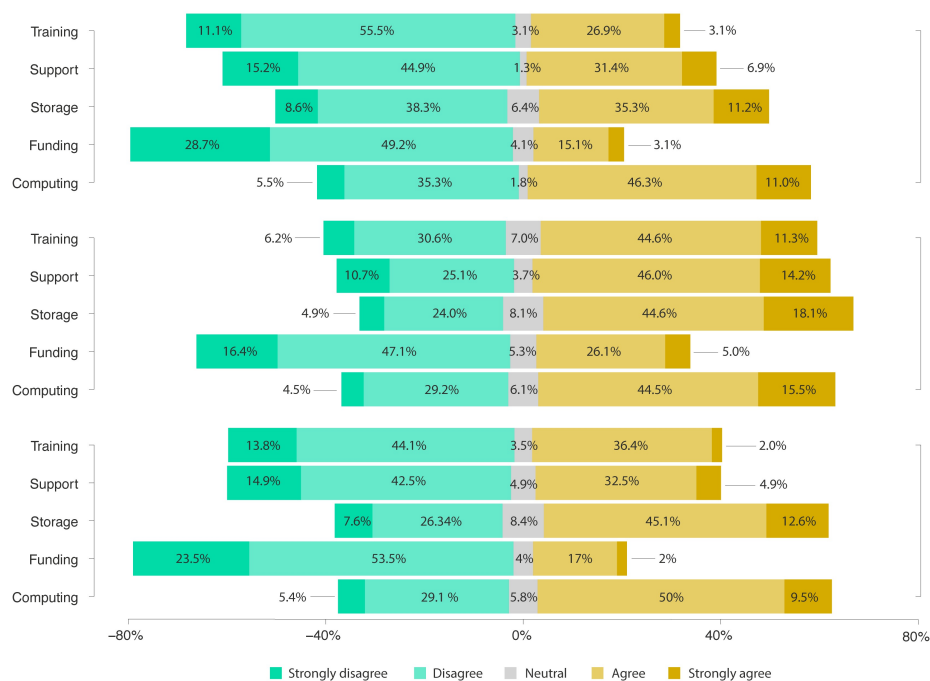
# Survey: Respondents' demographics



- 15.4% – Graduate student
- 5.2% – Research support
- 4.7% – Research Associate
- 4.6% – Postdocs
- 4.4% – Other
- 3.3% – Librarian



# How satisfied are researchers with the current DRI?

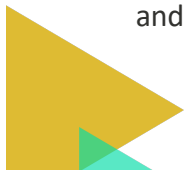
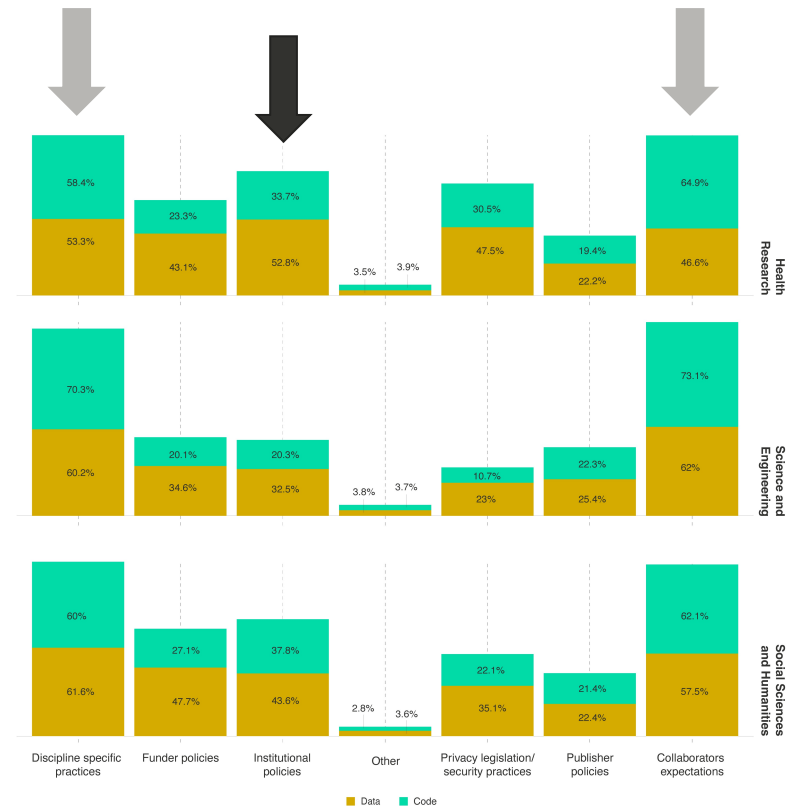


- Training:** Additional personnel are needed to help researchers make use of DRI.
- Support:** Professional Support Staff are equally important component of DRI as physical infrastructure, if not more so.
- Storage:** There is a growing demand for more and faster support. Improved file management systems could also alleviate storage issues in national platforms.
- Funding:** Current processes to access funding are cumbersome and time consuming. Eligibility of expenses is not consistent across disciplines.
- Computing:** There is an increasing demand for CPU and GPU computing and secure environments for the analysis of sensitive data. For some disciplines, there is need for better workflows and customized and integrated software.



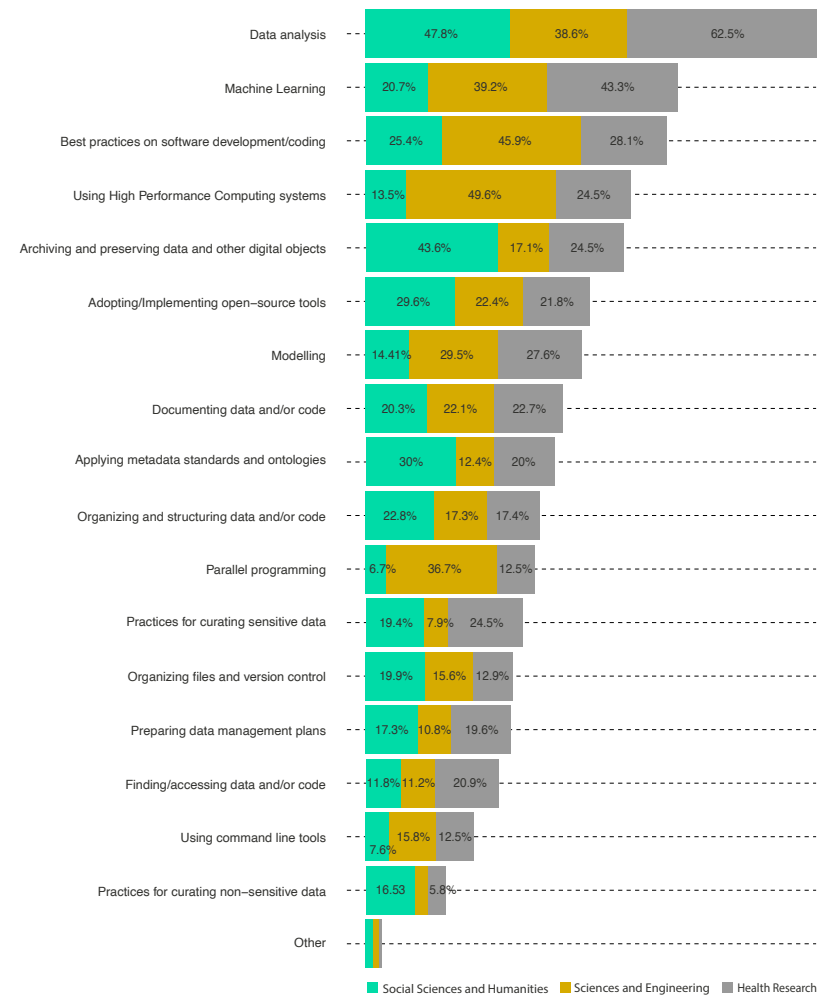
# What influences researchers DRI practices?

- The recent Tri-Agency RDM Policy will present important implications around the data deposit/sharing, both for researchers and institutions.
  - The RDM Policy may result in a two-tier system of researchers as it only applies to Tri-Agency funding.*
- There is a need to acknowledge research outputs for Open Science (i.e., sharing data and code) in research and career evaluation and awards systems.
- Discrepancies between yearly renewal of storage space and existing retention requirements from the Tri-Agency.
- Building a risk management framework and learning decision making tools could allow for a much more open and free data discussion



# What are the DRI training needs?

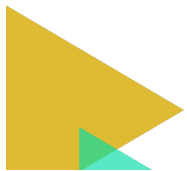
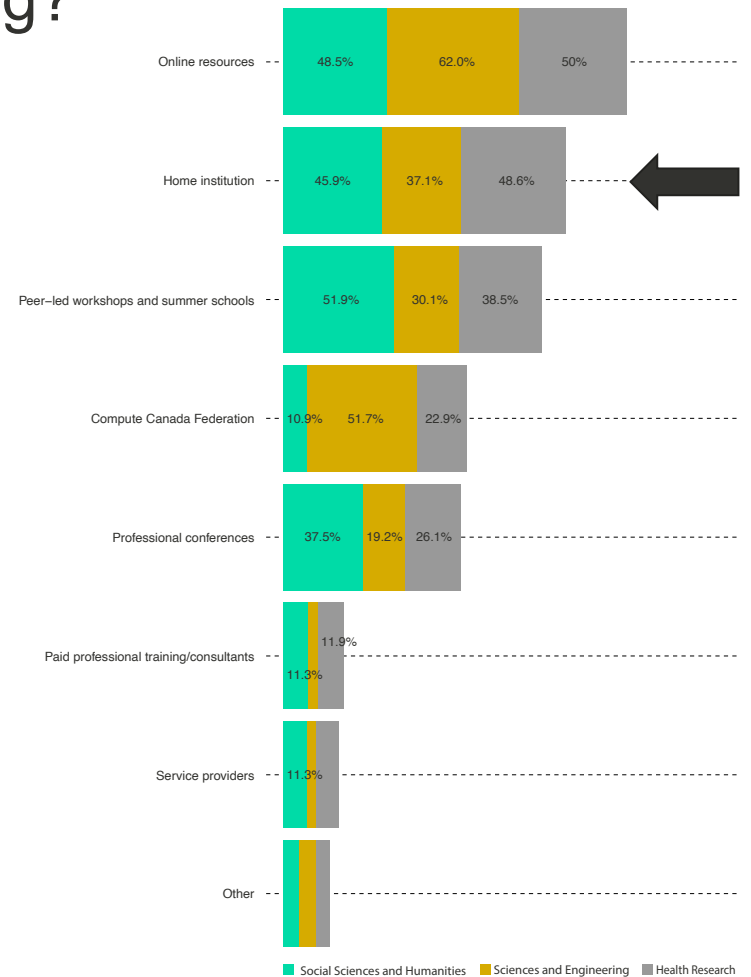
- There are significant differences in training opportunities provided by regional consortia.
- Links between universities, disciplinary associations, the CCF, and the Alliance support services should be enhanced through specialized training on subject-specific topics.
- Training opportunities and national infrastructure that supports communities of practice should be supported to promote networking, and the sharing of knowledge, expertise, and best practices.
- Faculty members often do not have time to engage in as many resources and training opportunities. Graduate students are crucial in making these connections for faculty.
  - Graduate students have limited time to conduct their research, and this is an important limiting factor in their development of DRI-related skills.*





# Where do researchers receive training?

- Different approaches to training are necessary to serve the needs of diverse communities. This training should support a range of experience levels.
- There is an important knowledge gap among researchers and a high barrier on how to use national DRI.
- There is a need for more agile training to support students map their research-specific infrastructure requirements.
- Nationwide coordinated user support and training could be providing through local institutional personnel.

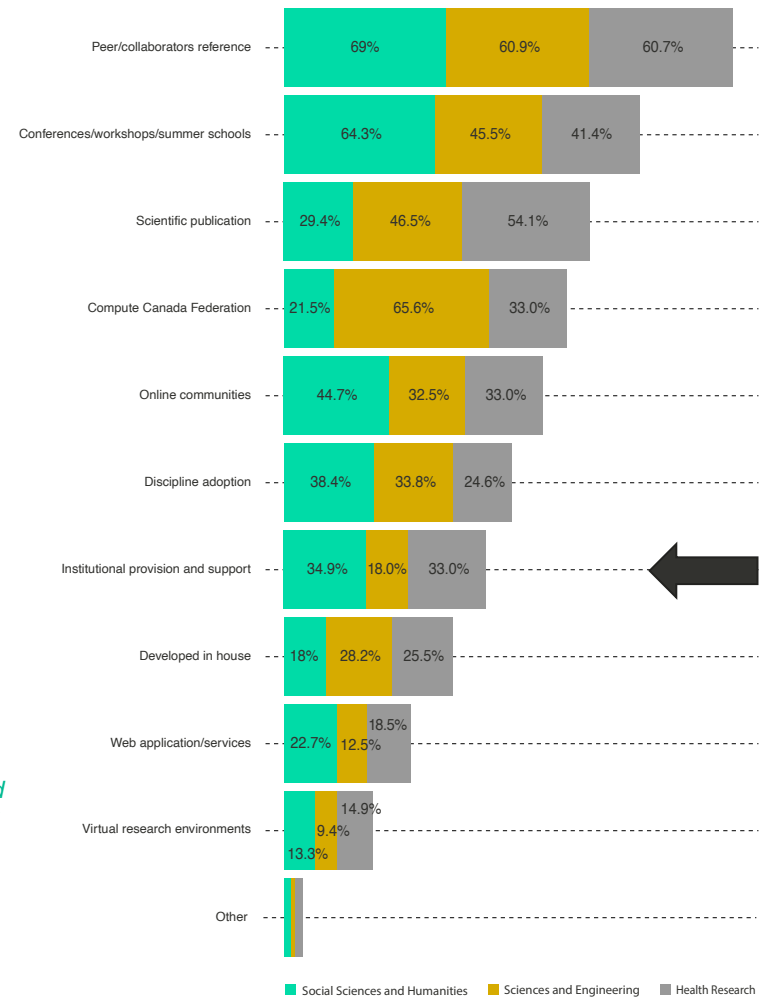
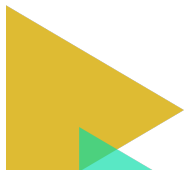


# How do researchers discover the tools they use?

- The tools, services, and resources that researchers often need already exist, but awareness about them varies across disciplines.
- Local liaisons who direct researchers to the appropriate national DRI resources available to them are essential. Without the local layer of support, researchers would not be properly onboarded and walked-through the discovery of the tools and services the Alliance would offer.

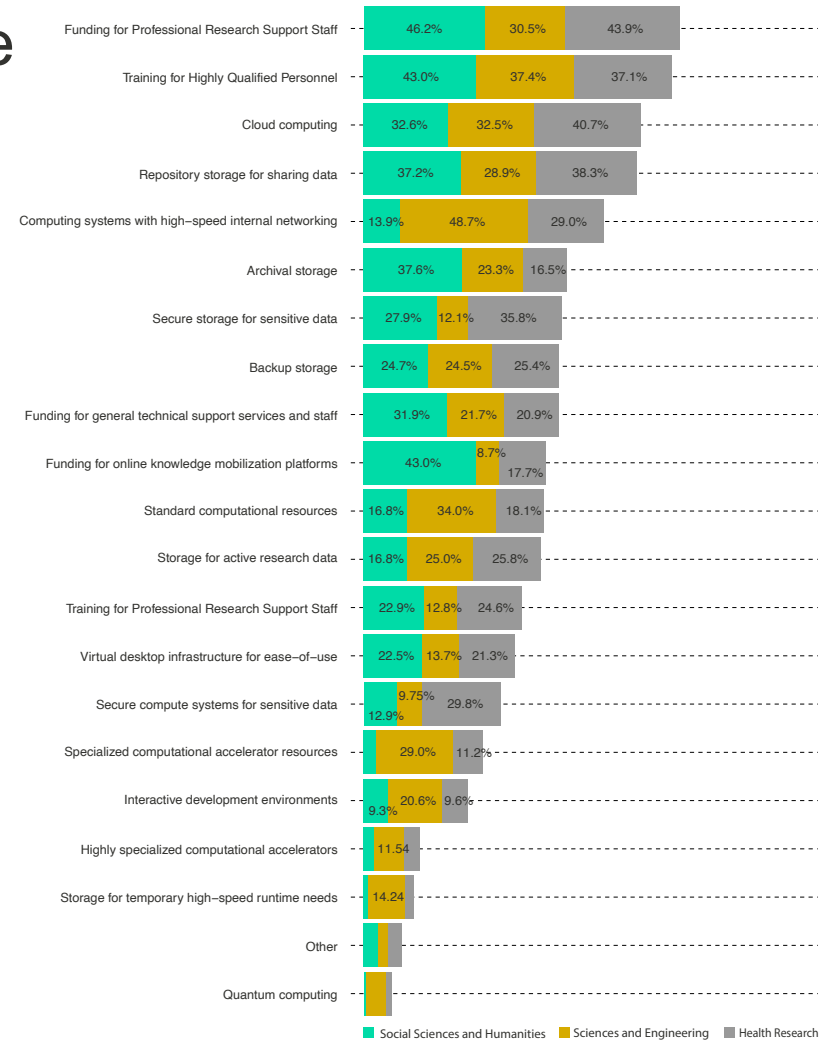
*“Interfaces through which users interact with Alliance’s technologies will shape the future of Canada’s research community.”*

*“There is a need to promote the integration and closer collaboration of IT, libraries, and the VP-Research Office in universities. Current service provision is very siloed in many institutions.”*

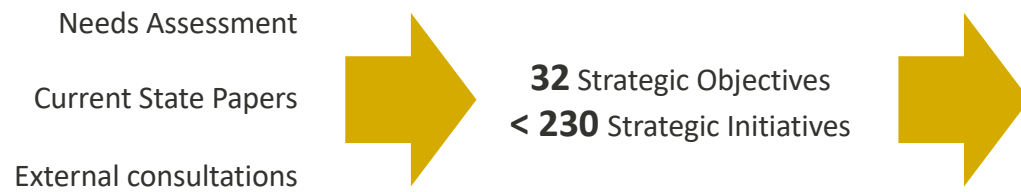


# What should the Alliance prioritize to respond to researcher needs?

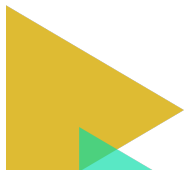
*“I do not want to be a software developer or system administrator. We just want to do research and not wait for over 8 weeks for access.”*



# Where do we go from here?

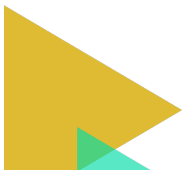


Stabilize	Expand	Scale-up
Transition into DRI		
Service Delivery and Funding Models	●	●
Training and Development	●	
Equity, Diversity, Inclusion, Accessibility	●	
	National & International engagement	●
Data sovereignty	●	●
Research Software	●	
Advanced Research Computing	●	
Research Data Management	●	





Feedback is welcomed and encouraged:  
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Thank you!

