CANADA FOUNDATION FOR INNOVATION

The research Infrastructure ecosystem and data:

How to effectively link cyber infrastructure and data?

ICRI 2018, Vienna

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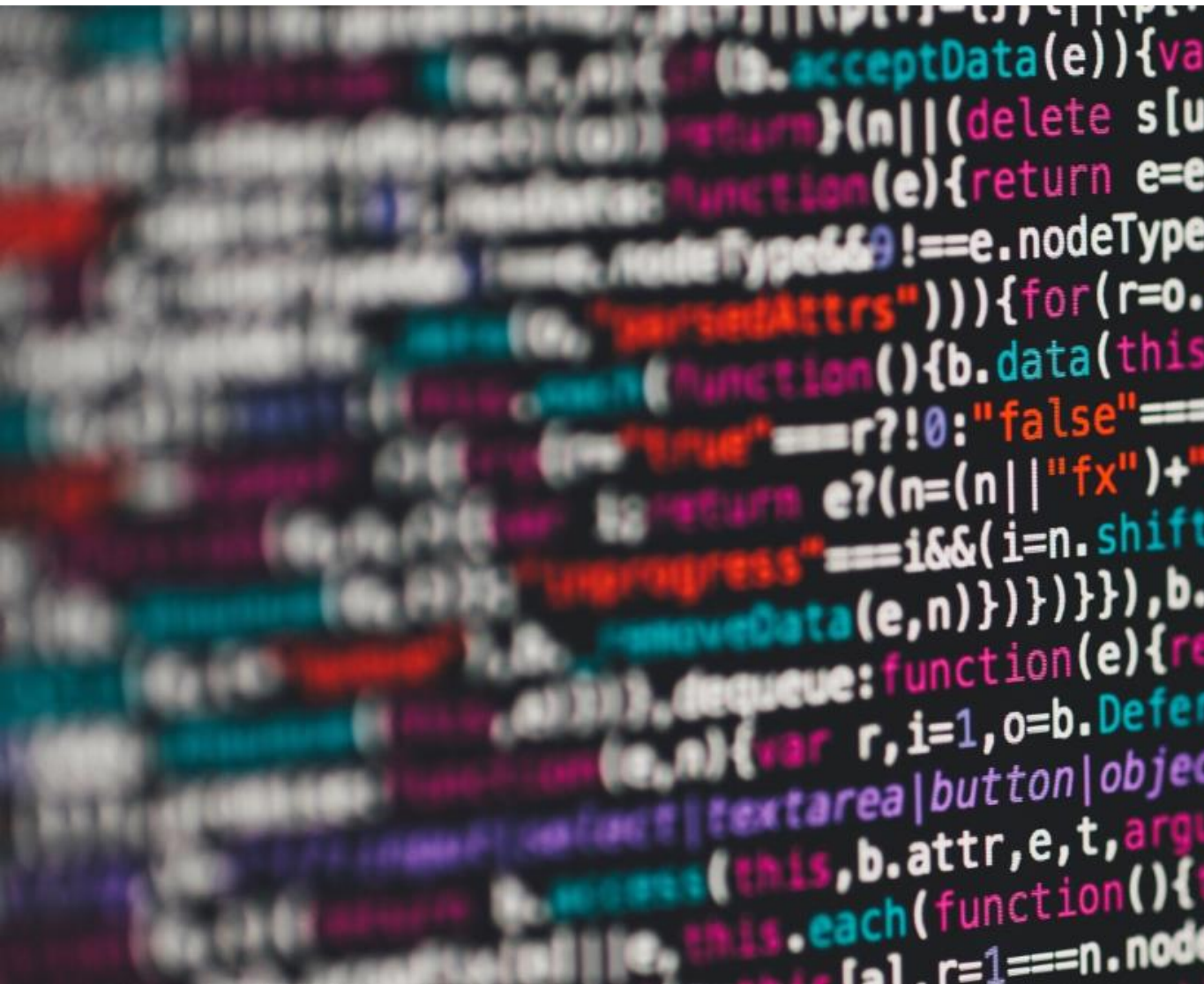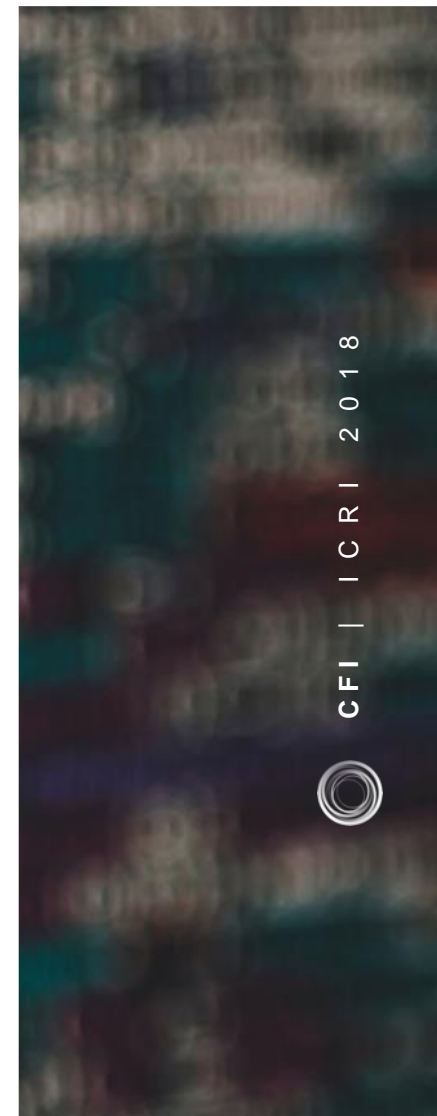A few words about us

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🕐
21 years ago

Today

Mandate

## TO BUILD OUR NATION'S CAPACITY TO UNDERTAKE WORLD-CLASS RESEARCH AND TECHNOLOGY DEVELOPMENT THAT BENEFITS CANADIANS

A unique funding model

CFI provides 40% of infrastructure costs (remaining 60% provided by provinces, institutions and private sector)

Over 21 years, CFI has invested over $7 billion in research infrastructure, generating over $17 billion in overall investment

Highly competitive funding requiring excellence and institutional commitment to maintaining the infrastructure for its useful life

CFI | ICRI 2018
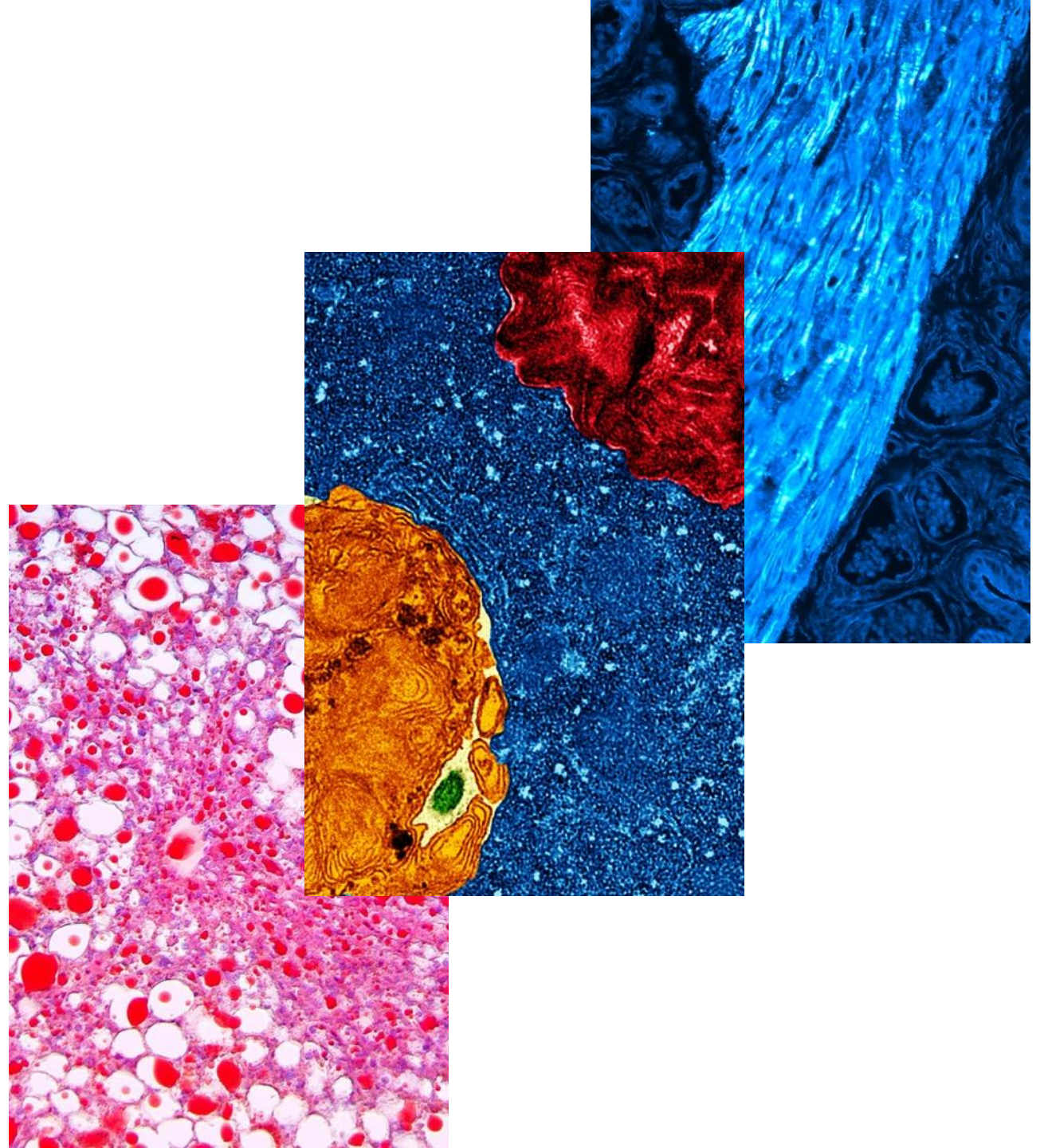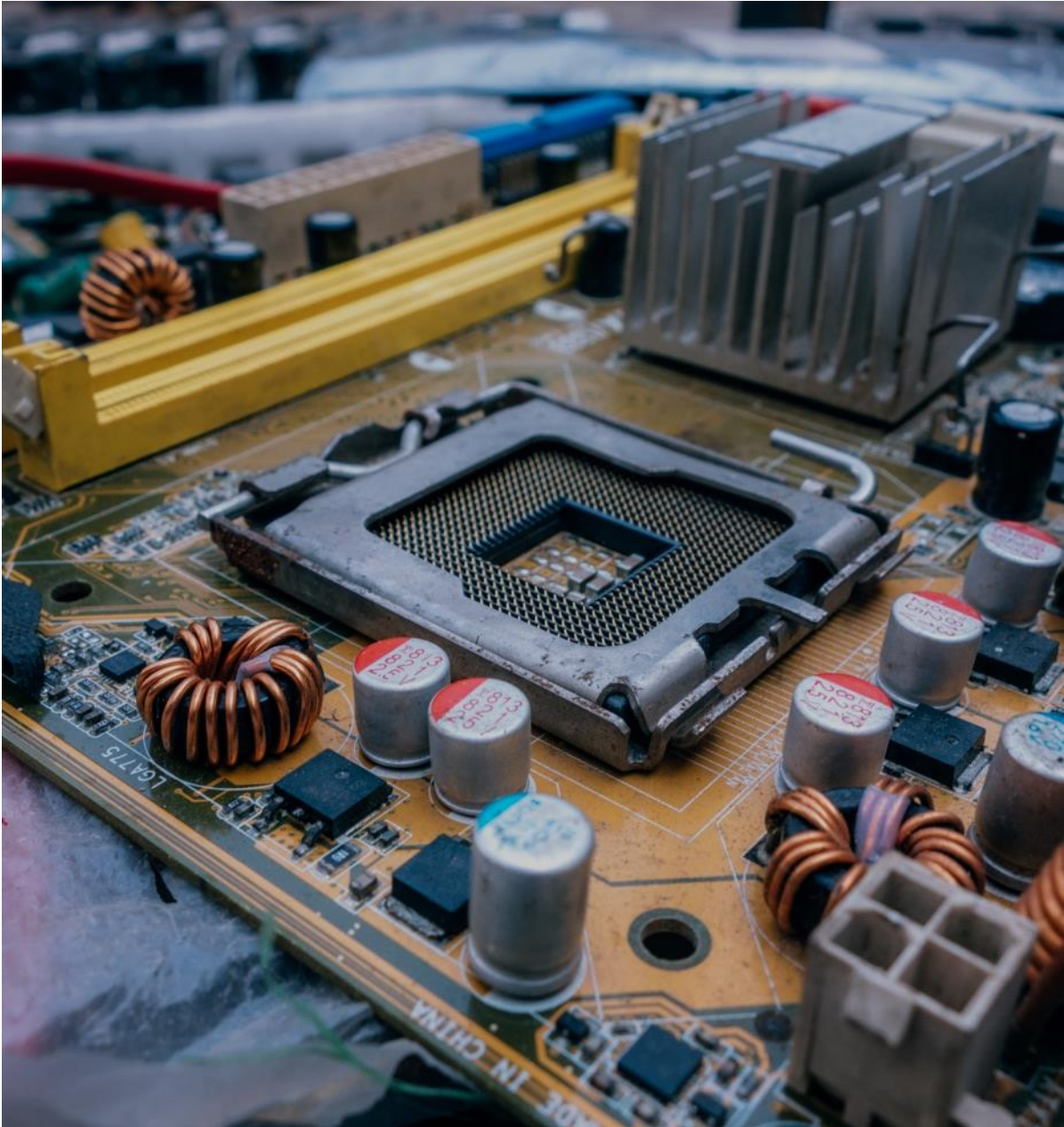
Program structure

Research infrastructure

- John R. Evans Leaders Fund (JELF)

- Innovation Fund

- College-Industry Innovation Fund

- **Cyberinfrastructure Initiative**

O&M support

- Infrastructure Operating Fund (IOF)

- Major Science Initiatives Fund (MSI)

The Cyberinfrastructure Initiative

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TO SUPPORT RESEARCH DATA INFRASTRUCTURE PROJECTS THAT CREATE TAILORED, SHARED AND INTEGRATED DATA RESOURCES CAPABLE OF ENABLING LEADING-EDGE RESEARCH ON SIGNIFICANT SCIENTIFIC, SOCIAL AND ECONOMIC QUESTIONS.

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Digital research infrastructure (DRI)

DRI conceptual model

Key ingredients

Infrastructure
(Hardware and Software)

Highly Qualified People
(HQP)

Operational Policies
and Processes

Key outcomes

Research

Knowledge

Commercializable
products/outcomes
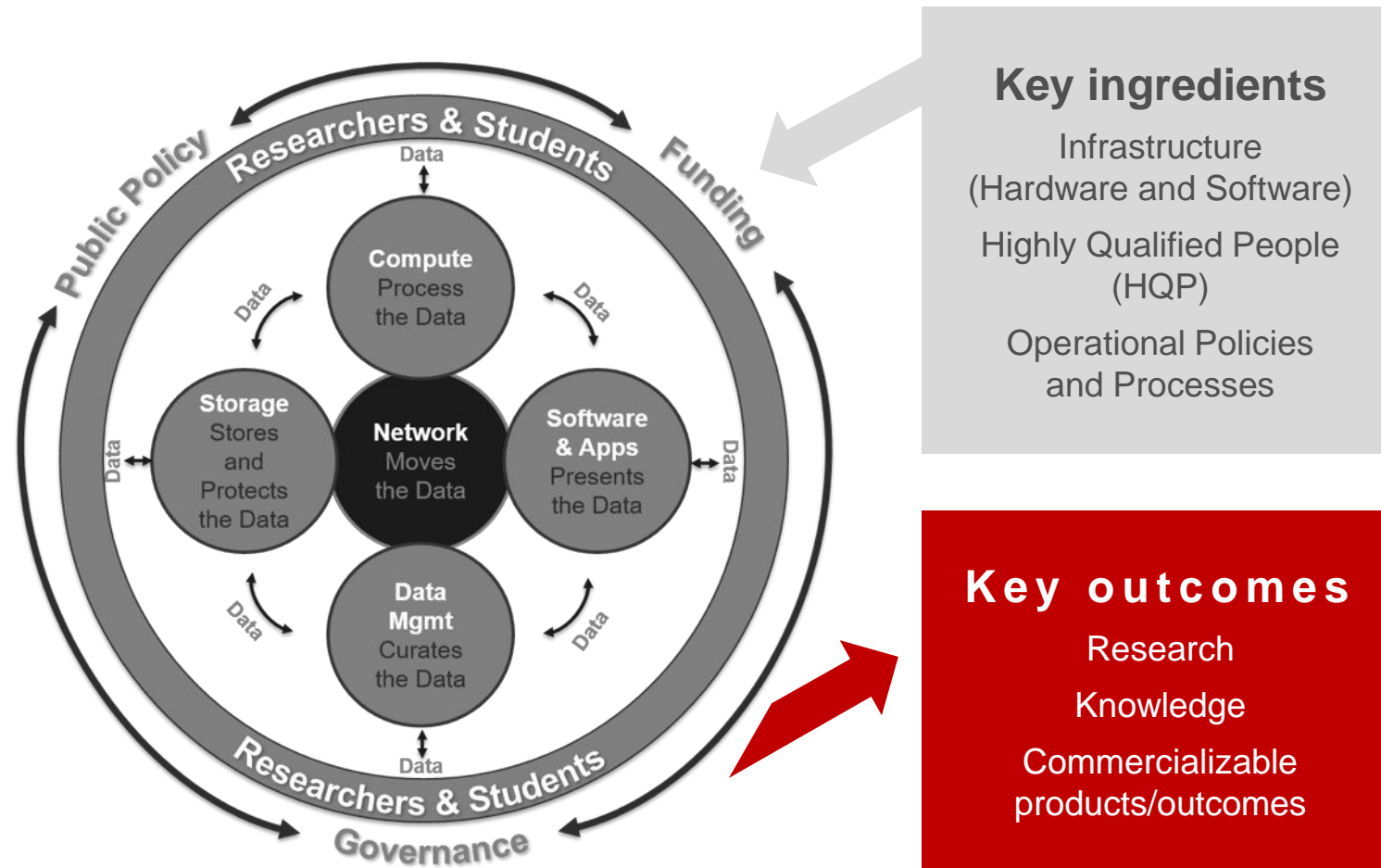
DRI and research data management

"…elements required to perform data-intensive and computationally-intensive research and data management,…"

"complex ecosystem"

requires and produces digital assets

Similar data lifecycle and data workflows

Share includes "dark" storage of raw or processed digital assets

KEY QUESTIONS

How best to ensure data quality and reliability?

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How to design and implement data management systems that can be trusted?

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What the impact will be on both present and future research infrastructures and data producers?

The cyberinfrastructure initiative

Projects submitted should bring together a **community of researchers from across the country** who share similar challenges linked to the availability of research data.

Projects should **address an existing or emerging challenge for this community** through the **development of new tools and applications or novel ways of organizing and using research data** that would enhance the community's capacity to conduct leading-edge research.

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The cyberinfrastructure initiative

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Consortia

Emerging gaps or challenges

Community of researchers

Tailored, shared and integrated data resources

Enhance leading-edge research

Adopt, adapt & develop

CFI | ICRI 2018

Current, future and emerging challenges

- Optimal use of research data infrastructure (DRI) and the role of funding agencies in mobilizing research communities and in applying effective data policies;

- Long term strategic planning for a sustainable DRI ecosystem;

- Bridging the different scientific communities with technical expertise required to advance knowledge;

- The global shortage of talent in data highly qualified experts.

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Thank you

Keep in touch

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