

RESEARCH | RÉSEAU **IMPACT**
IMPACT | RECHERCHE
CANADA | CANADA

Co-Producing Research for Greater Impact

ArticNet Webinar Series
September 5, 2024



Agenda

About Research Impact Canada

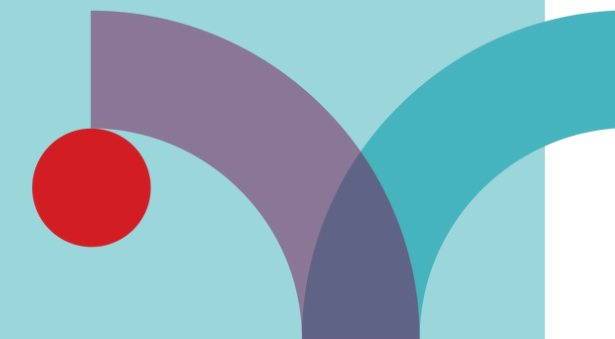
What is Knowledge Mobilization (and why does it matter?)

Framework: Co-Produced Pathway to Impact

Case Study: Example of co-production

Reflection: What kind of impact do you want to make?

Q&A





Who We Are

Research Impact Canada is a pan-Canadian network of 36 institutions with a goal of maximizing the **impact** of academic research for the public good.

We are mostly comprised of Canadian universities, but our membership has expanded to include four UK Universities, one college, and several non-university members.



36

Institutions
and counting



100+

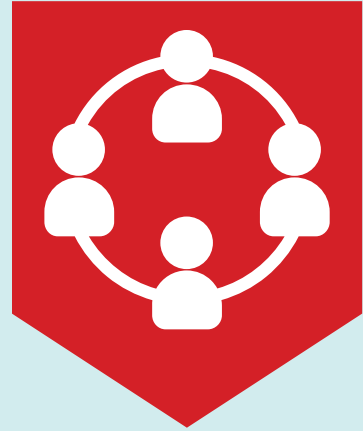
People dedicated
to Research
Impact



17

Years of turning
research into
action

WHAT DO WE DO?



Facilitate a **community of practice** by developing and sharing best practices, services, and tools



Help researchers and partners **demonstrate the impact of their research excellence**



Build institutional supports for knowledge mobilization to maximize societal impacts of research



**What is
Knowledge
Mobilization?**

What is Knowledge Mobilization?

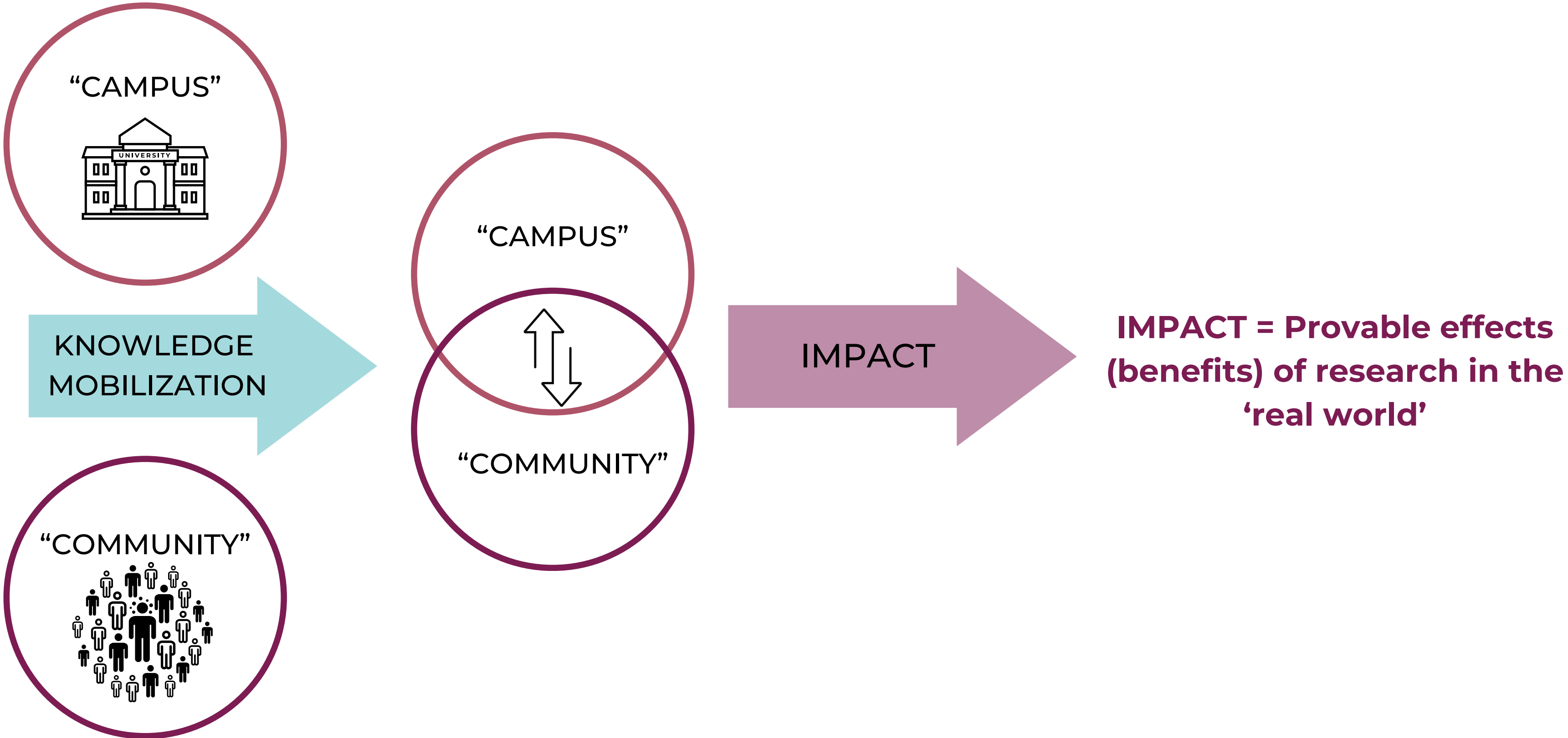
Knowledge mobilization **helps make academic research accessible** to non-academic audiences and **supports collaborations** between academic and non-academic partners such as community-based organizations.

(Phipps, Pepler, Craig, Cummings, & Cardinal, 2016)

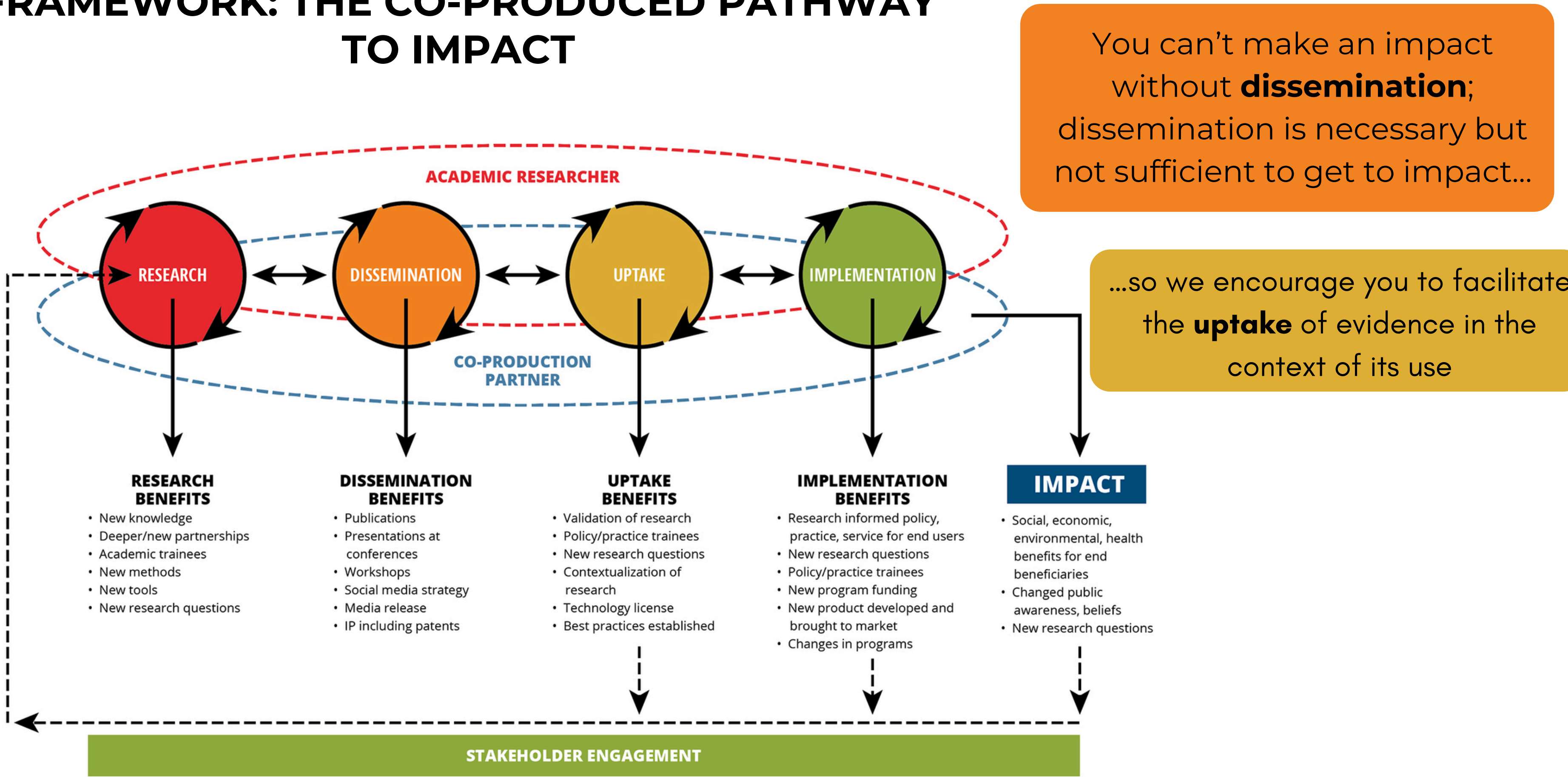
*Knowledge Mobilization is a **range of activities** that **foster a culture** in which researchers and non-academic partners **create, share and/or apply knowledge to benefit society**. – University of Victoria*

Knowledge mobilization is **not just about disseminating information**. It's not just about sharing, or publishing, or one-way information flow. **It is about engagement, end-user participation and attention to impact**. – KMb Tools

A simple model for knowledge mobilization



FRAMEWORK: THE CO-PRODUCED PATHWAY TO IMPACT



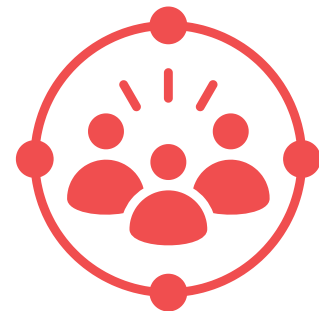
Benefits of Co-Production

Co-Production: “Doing research with the people who will benefit from it”



Benefits for the researcher:

- More relevant and higher quality research questions
- Increased research uptake and application
- Access to local knowledge and expertise
- Stronger grant applications



Benefits for community:

- Building local skills, experience, and capacity
- Direct influence on research outcomes
- Sustainable solutions and local ownership



Benefits for society:

- Improved social outcomes through better solutions
- Greater public trust in research
- More likely to impact policy and lead to systemic change



Co-Production Case Study



LEARNING FROM LAKE STURGEON

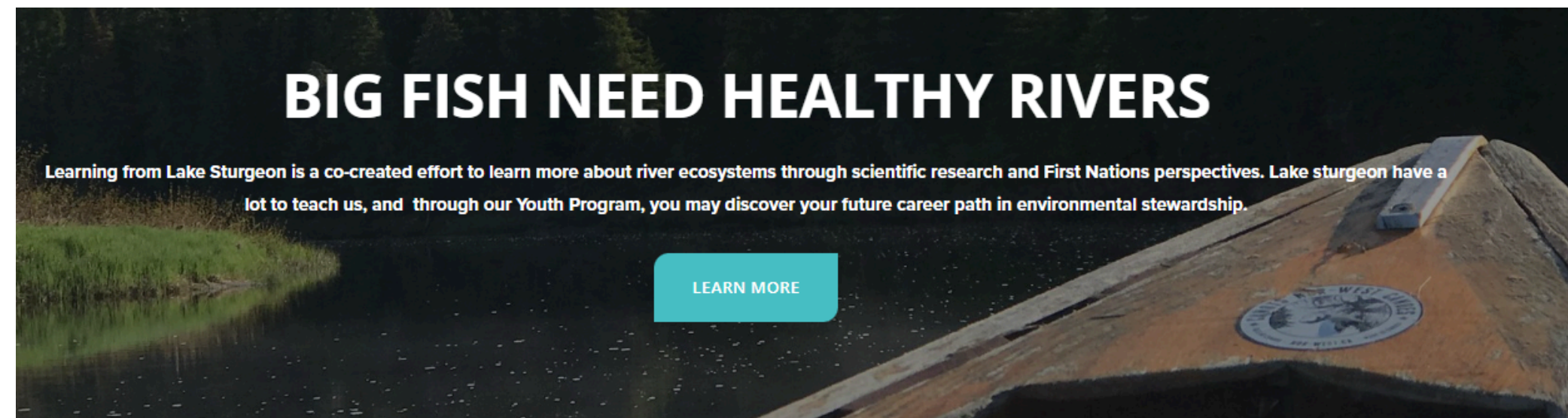
Learning from Lake Sturgeon is a co-created effort to learn more about river ecosystems of the Moose Cree Homeland through scientific research and Moose Cree perspectives, including Elders and youth.

The vision of Learning from Lake Sturgeon is to advance a common understanding of the value of connections — between peoples, lands, and waters — now and in the future.

Learn more about our program, and how you can be part of it!

We make observations about the health and behaviour of namew and the rivers that are their homes. We rely on the Elders Advisory Group to guide our work, and we involve youth in our fieldwork and learning.

learningfromlakesturgeon.ca



BIG FISH NEED HEALTHY RIVERS

Learning from Lake Sturgeon is a co-created effort to learn more about river ecosystems through scientific research and First Nations perspectives. Lake sturgeon have a lot to teach us, and through our Youth Program, you may discover your future career path in environmental stewardship.

LEARN MORE

<https://learningfromlakesturgeon.ca>



Co-Production Case Study

The capture and release of lake sturgeon

Types of information gained:

- Blood samples**
To measure contaminants like mercury and to learn about fish health (similar to blood tests doctors perform on people).
- Lengths and weights**
Measured to determine size and body condition.
- Small pieces of fins**
Analyzed to determine what fish are eating and how they are related.
- Habitat where captured**
Information on water depth, flow, bottom structure, and the types of bugs living on the bottom.
- Photos**
Taken to record any external marks, injuries, or deformities.
- PIT tags**
Used to identify recaptured individuals.
- Acoustic tags**
Used in some fish to track movements through rivers.

Acoustic tags

are used to learn about lake sturgeon movements and habitat use.

Each sturgeon's acoustic tag produces a unique signal made of sound pulses.

Receivers *listen* for the sound signal, detecting any fish that swims close enough.

The sound signal conveys the fish's unique **identity**. Some tags convey **activity** and **depth** as well.

Receivers can show where fish spend time in different seasons

Using a network of receivers, the movements of an individual fish through the river can be tracked over time.



Co-Production Case Study

LEARNING FROM LAKE STURGEON



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learningfromlakesturgeon.ca

North French River

On the North French River, we use Nor-west Canoes because their wood is flexible to slide over rocks. We are only able to travel up the North French River when the water is high, after ice-off, or in the fall after rains. Even then, we use poles to help get past shallow areas like the Long Rapids.



We have tagged 24 namew in the North French River since 2016 and 12 fish have active tags right now!

Did you know?
Along with location, tags provide information on how deep and how active the fish are. These varied across seasons and time of day.



Spring → Fall
Namew used this stretch during the ice-free seasons, but not between freeze-up and break-up.

Winter road

What we learned:
Lipids taught us about the health of the namew above and below the dams...
Triglycerides that store energy were lower in namew caught in between the Smoky Falls and Harmon dams.

Relative to the other areas we studied, in namew below the Kipling dam:
Cortisol that signals stress was higher.
Sphingomyelins that protect nerve cells were lower.
Ceramide that is an important part of the skin's protective barrier was higher.

What we learned:
We identified amino acids that were altered in namew plasma (blood):
We found that some amino acids involved with building connective tissues, energy use, and nerve signals were higher in namew either above or below the hydroelectric dams.

Could it be something I ate?

We measured more than 1300 proteins in namew plasma (blood). More than 500 proteins were different in plasma from namew at each sampling location. We found that many of these proteins were related to these biological processes and functions:

- Nervous System Development:** Differentiation of brain and spinal nerve cells
- Response to Stimulus:** A change in state or activity as a result of a stimulus
- Metabolic Processes:** Making and breaking biomolecules
- Locomotion:** Self-propelled movement

What could all of this mean for the health of namew?
Namew blood contained many biomolecules which let us know that they are likely eating different food above the dam, between the dams, and below the dams.
Namew also have higher stress, and use more energy for locomotion and growth below the Kipling dam.

Hello my two-legged relatives, our lives are connected by water and our blood! Our lives speak through our blood.

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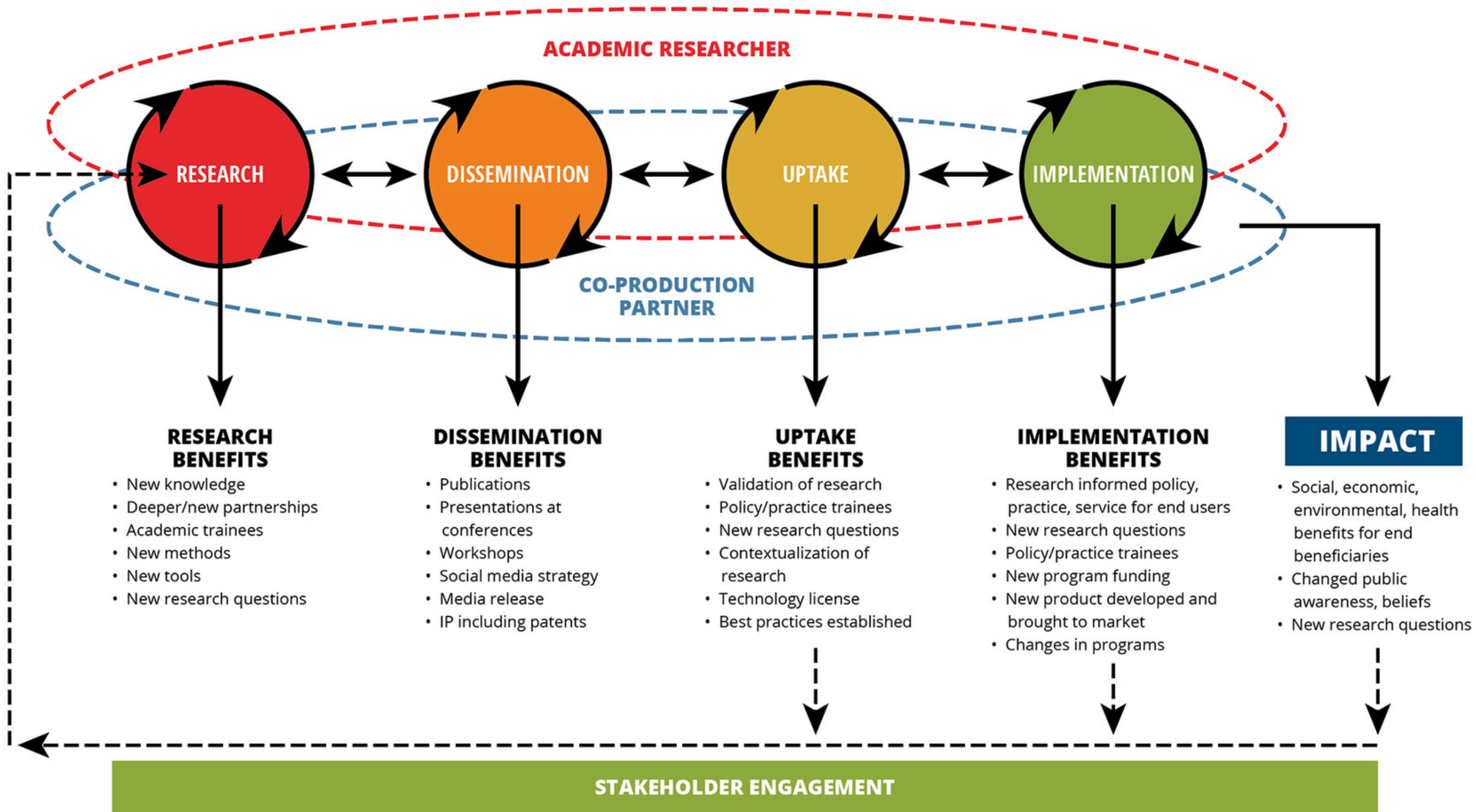
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FRAMEWORK: THE CO-PRODUCED PATHWAY TO IMPACT



Key takeaways

- **Relationships are at the core of knowledge mobilization, co-creation, and co-production of research**
 - Invest time in developing trust and relationships with community partners.
 - Recognize that effective collaboration requires patience and commitment.
- **Geographic and local context matters - different communities have different needs**
 - Tailor your research to the specific needs and histories of the communities involved.
 - Recognize that each geographic area and community have unique histories, strengths, and face different challenges.
- **Understand the history and the relationships that came before you**
 - Acknowledge and build upon the work and relationships that came before you.
 - Learn as much as you can from other researchers about the work they are doing to help inform your approaches.
- **Recognize that co-production and co-creation are a spectrum**
 - Understand and respect that there may be varying levels of interest and capacity among community partners.
 - Adapt the the depth of your co-production plans accordingly, and keep reciprocity and mutuality at the forefront of your work
- **Flexibility and open-mindedness are key to true collaboration**
 - Try to enter your project without preconceived notions about what the process or outcome should look like.
 - Remain flexible and open to changes as the project evolves, keep an open mind





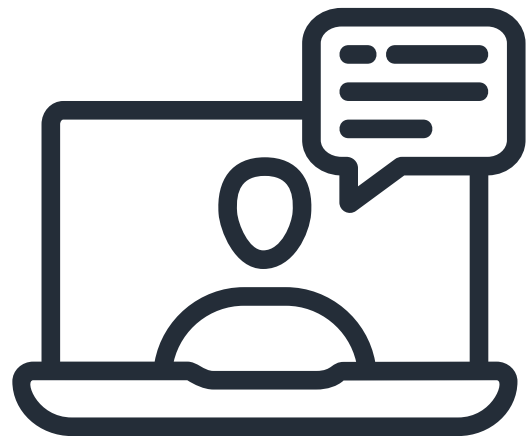
Let's add some
TOOLS
to your impact
toolkit

RIC TOOLS & RESOURCES



FREE MODULES

- Standalone modules focusing on specific skills important for knowledge mobilization, such as: Infographic Design, Planning Accessible Meetings, Partnership Development, Storytelling, Data Literacy



WEBINARS

- RIC hosts webinars in topics around KMb and research impact
- Examples: Mobilizing Knowledge, Engaging with Government, Working with Libraries, Community Based Research



RESOURCES / TOOLKIT

- A searchable repository of tools and resources freely available on the RIC Website
- Resources include those that have been created by RIC members, as well as tools that have been curated from other sources and peer-reviewed



Resources



It's Your Turn!



**WHAT DOES
MAKING AN
IMPACT
MEAN TO
YOU?**

REFLECTION

- 1. What impact do you think your research can have? Who can benefit from this research?**
- 2. Who will you engage with to co-produce your research?**



Connect with us!



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