



GLOBAL WATER FUTURES

SOLUTIONS TO WATER THREATS
IN AN ERA OF GLOBAL CHANGE

WWW.GLOBALWATERFUTURES.CA

Knowledge Mobilization Workshop

KM Core Team

GWF Science Meeting June 2-6, 2018



Welcome!

KM Workshop objectives:

- Describe KM trends and expectations for applied science programs and where GWF has the opportunity to make a tangible difference
- Discuss partner KM expectations, best practices for co-creation and continual engagement with a panel of key partners across the country and across types of organizations
- Increase understanding and awareness of KM by showcasing examples from GWF's first year and highlighting the services available to the GWF network



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Join the interactive live discussion

1. From your smartphone text GWFKM to **37607**
2. Get a confirmation by text
3. You're ready to participate



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Canadian
Water
Network

Lessons learned from 15 years of knowledge mobilization at Canadian Water Network

Kelly Munkittrick
Wilfrid Laurier University

Katrina Hitchman
Canadian Water Network

GWF Inaugural Science Meeting
June 5, 2018

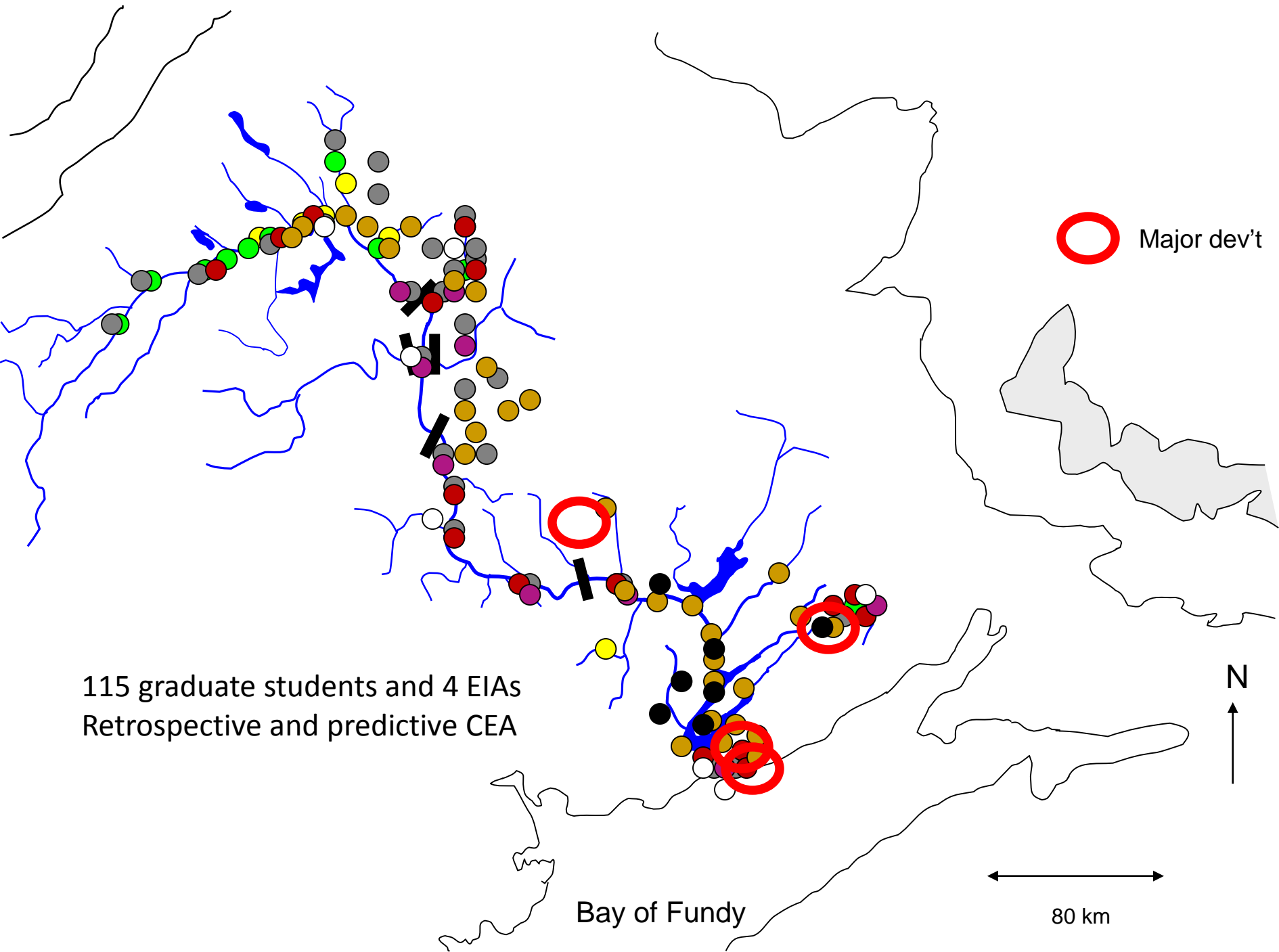


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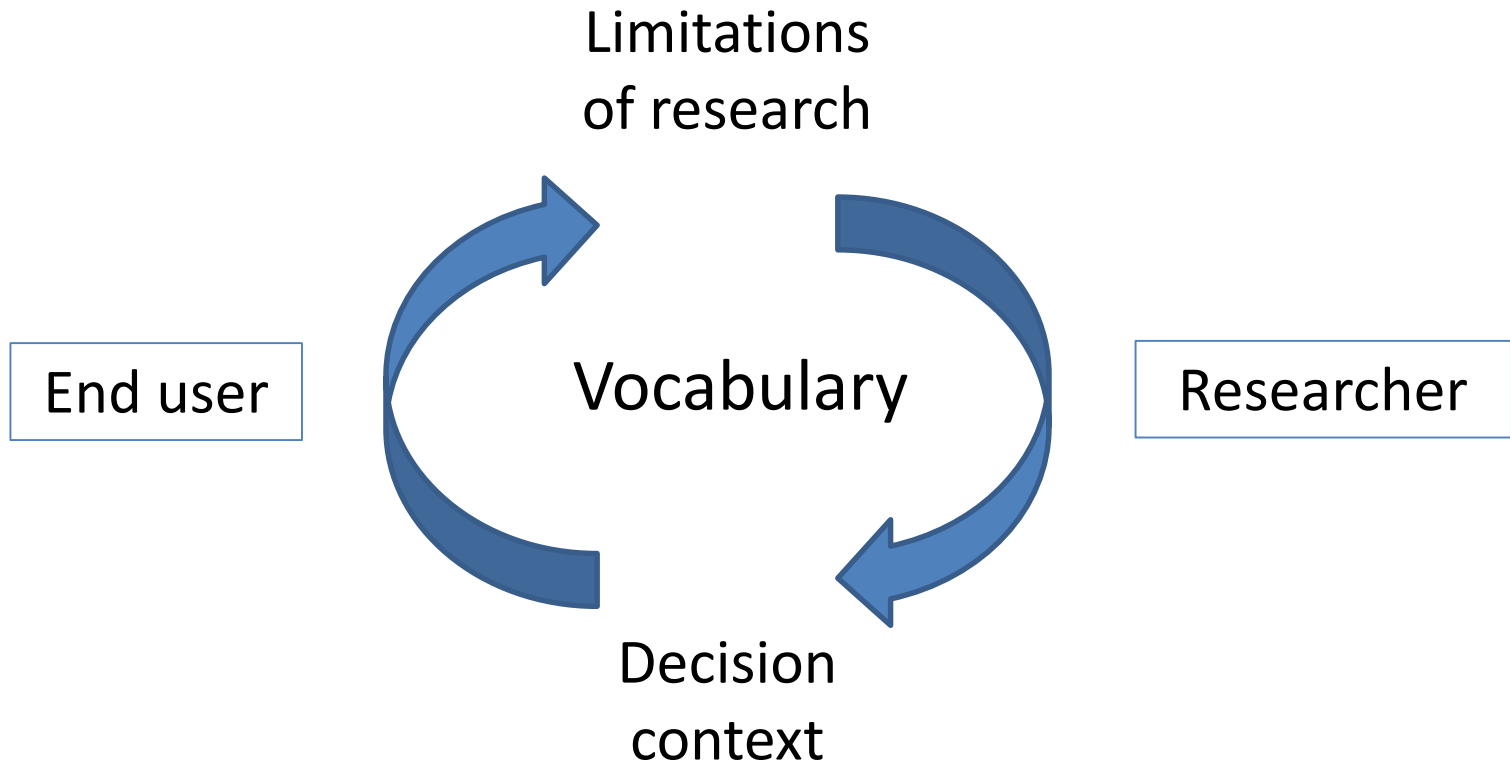


“I have an answer to your problem...”

Often don't need something defined to $p < 0.0001$



Continued interactions improves understanding



To make it actionable: Need to treat project development as an evolving conversation



Where
am I?

You are at 45 degrees, 25
minutes, 29 seconds north,
and 75 degrees, 42 minutes,
20 seconds west. I am
standing at 100 metres above
sea level, so you must be at
about 120 metres.



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KTE
knowledge brokering
KM
knowledge translation and exchange
KT
science-policy integration
knowledge translation
K star
knowledge exchange
knowledge mobilization
KB
KT/KB
knowledge transfer



CWN

“Knowledge mobilization is the process through which researchers and decision makers **exchange knowledge** and **engage** with one another throughout the course of a research project or program to improve the **relevance, uptake and application** of research knowledge for environmental, economic, social or public health benefit.”



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Models of Knowledge Mobilization



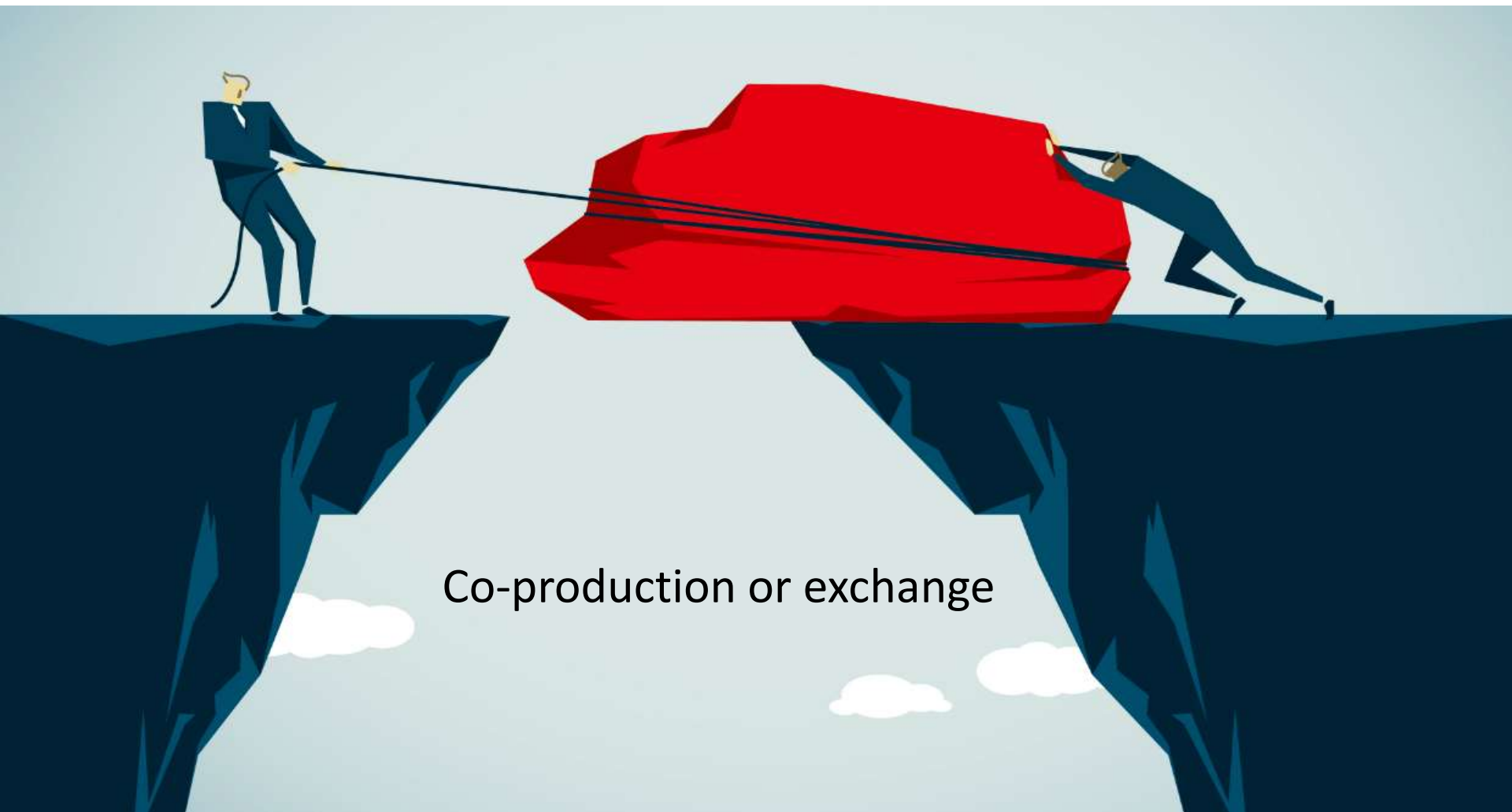
Research push



End user pull

Lavis, Lomas, Hamid & Sewankambo (2006)

Models of Knowledge Mobilization



Co-production or exchange

Lavis, Lomas, Hamid & Sewankambo (2006)



Benefits of KM

“Knowledge mobilization is incredibly beneficial because you feel that you are helping to change the world. You can see that your work is actually being applied, whereas in many cases, I have published academic papers and nothing has ever happened. So it really made my job more exciting, and made the job of my students more exciting.”

- Hans Schreier, University of British Columbia

How engaged are your partners in your research & KM activities?



More impact.

Inform

Consult

Involve

Collaborate

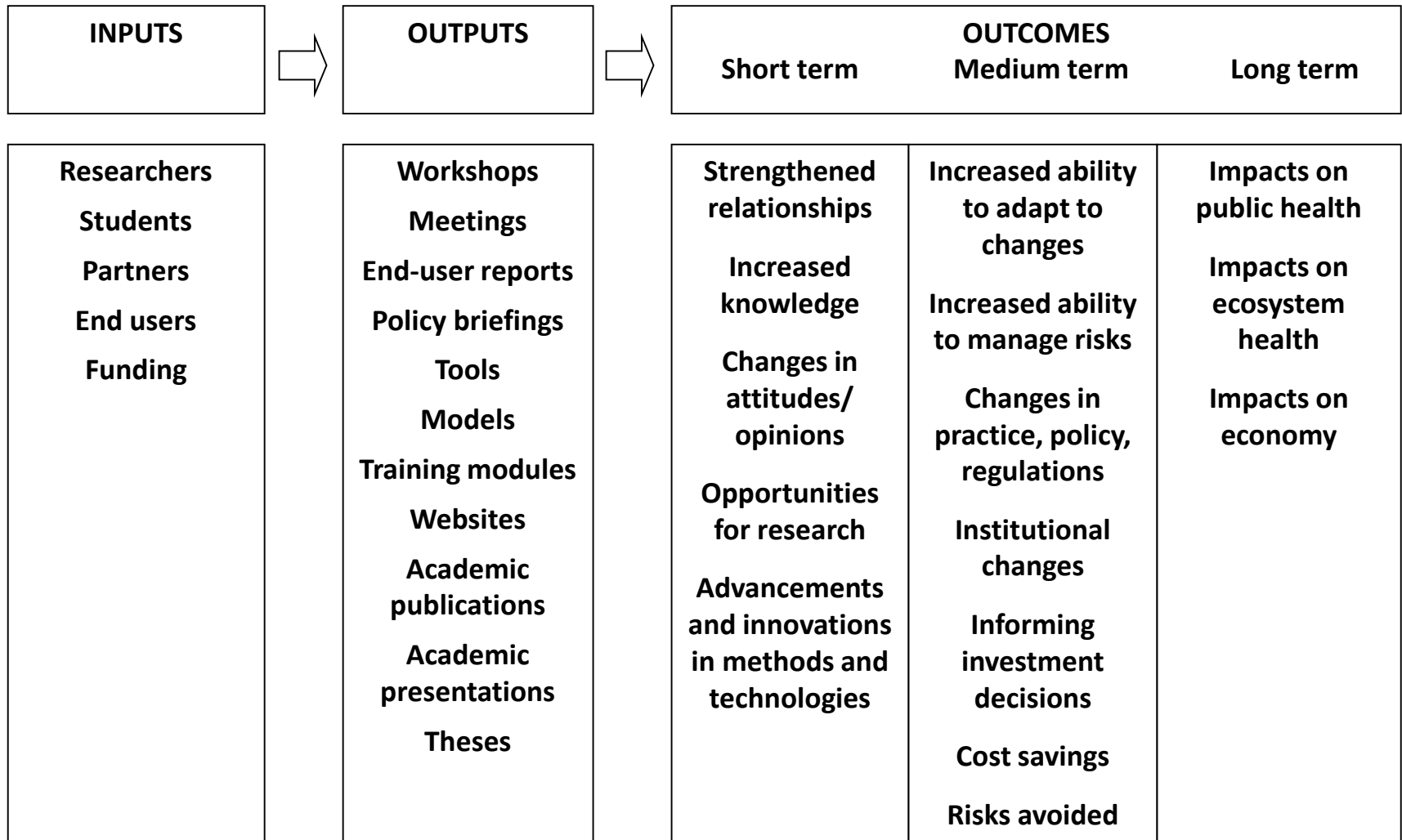
Empower

Less control. Slower process.

Adapted from [Arnstein's \(1969\) Ladder of Public Participation](#) and the [IAP2 Spectrum of Public Participation](#)

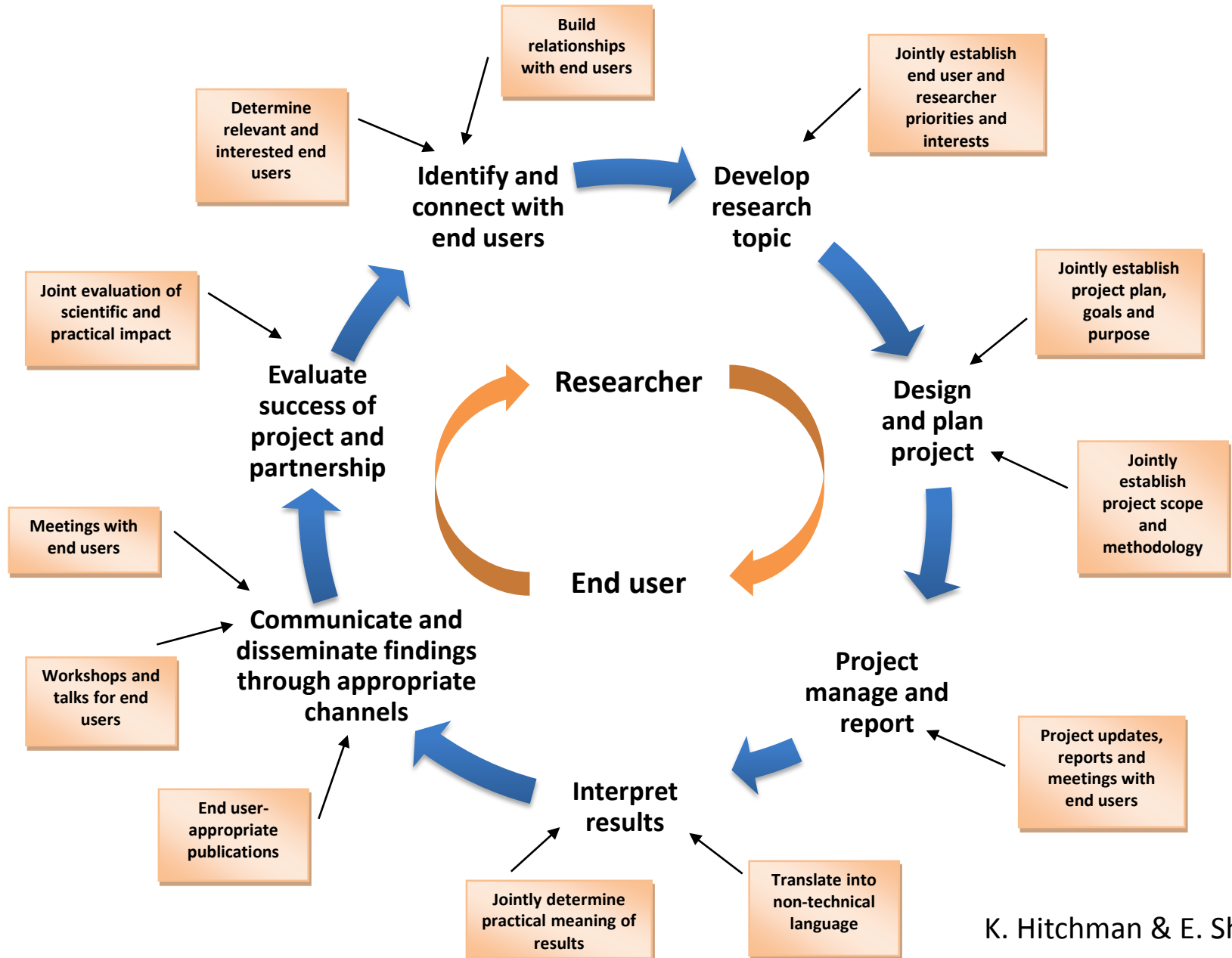
From Bergen, A., and Shantz, E. (2016). Evaluating research impact: From general to specific. Presentation for OMAFRA.

Success: Moving from outputs to outcomes



Adapted from the University of Wisconsin-Extension evaluation logic model template
www.uwex.edu/ces/pdande/evaluation/evallogicmodel.html

What does true engagement look like?





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GWFF Partners Panel



Wayne Jenkinson
International Joint
Commission



Sandra Cooke
Grand River
Conservation
Authority



Michael Vieira
Manitoba Hydro



Amber Skye
University of
Toronto Dalla Lana
School of Public
Health



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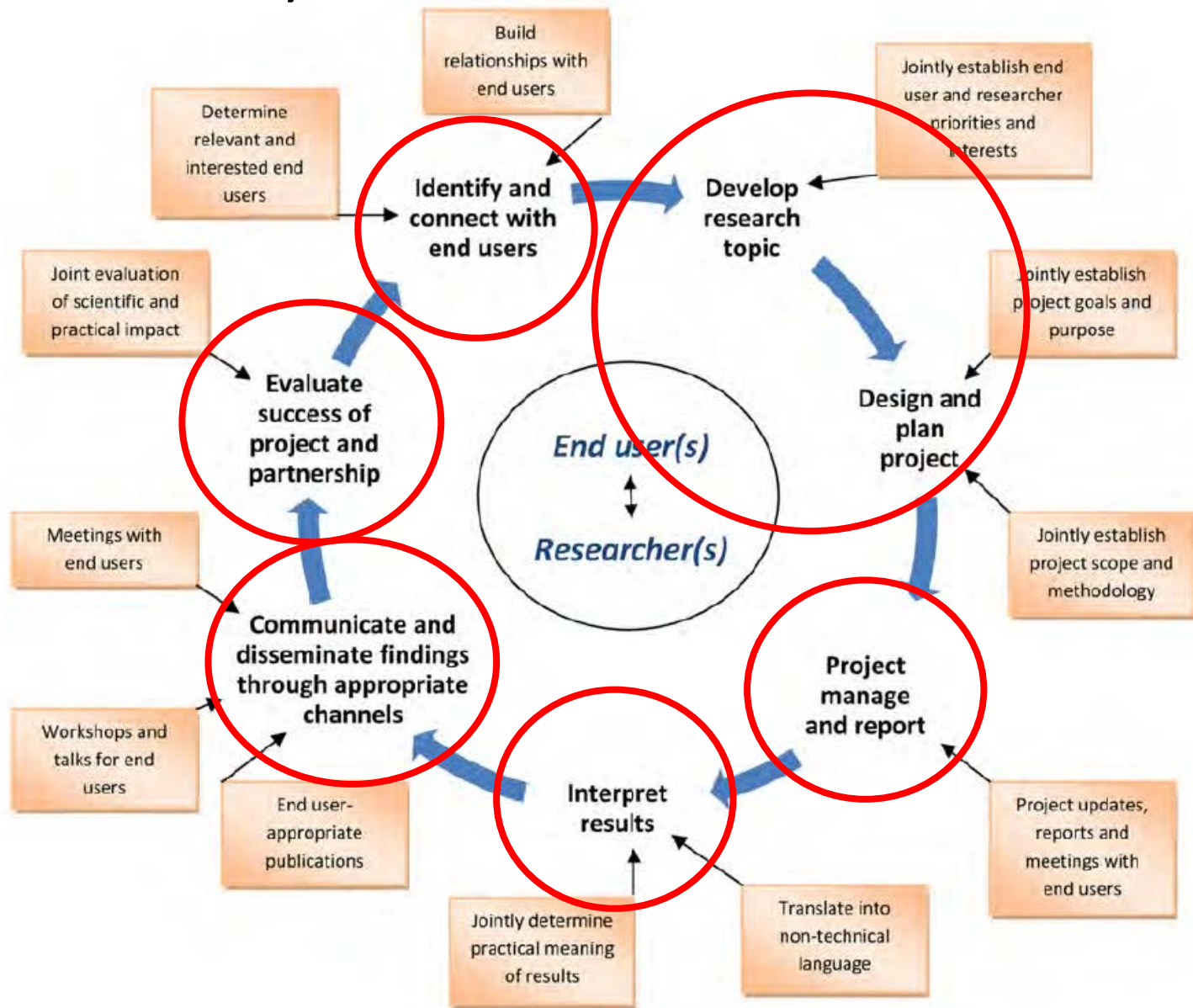


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GWF Year 1 Highlight Reel

Stephanie Merrill
Andrew Spring

KM Best Practices cycle





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Identify and connect with





Co-develop Research Topic, Design and



WORKING PACKAGE KM PLAN

Theme A3: Integrating land-surface and in-stream water quality processes into hydrologic modelling

Investigators

Karl-Erich Lindenschmidt
Al Pietroniro
John Pomeroy
Howard Wheeler
Saman Razavi

Objectives

To develop new water quality
Changing intl. Ag. commodity demand

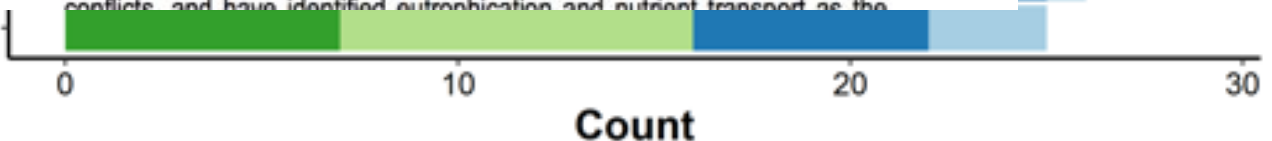
Participatory Working Group Members

Saskatchewan Water Security Agency
Prairie Provinces Water Board (PPWB)
International Joint Commission (IJC)
Manitoba Sustainable Development

Jeff Sereda and John-Mark Davies
Joanne Sketchell and Mike Renouf
Glenn Benoy
Nicole Armstrong

Knowledge Mobilization Plan

This modelling work will support knowledge users in assessing how particular water management scenarios will influence river water quality. In their letter of support for the IMPC proposal and the GWFF Stakeholder Assessment, the PPWB note that they are concerned with water quality conflicts, and have identified eutrophication and nutrient transport as the





Project manage and report

Prairie Water U

The Prairie Water Use
among Prairie Water r

1. Represent a diversity (and stakeholders) involved below for list of representatives
2. Function as a “Boundary” potential users to facilitate clients, partners and the
3. Critically and constructively user community perspectives
4. Provide advice to the research program delivery
5. Assist in identifying public-relations events



Northern Water Futures Updates

Friends and Colleagues,

Another winter is behind us and we are all looking forward to spring. Over the past few months, the team at Northern Water Futures has been hard at work meeting with communities and partners to discuss research priorities and co-development of research, and to plan for the upcoming field season. We were fortunate to participate in meetings in the Dehcho and Sahtú regions this winter that allowed NWF to strengthen existing relationships and to build more partnerships and collaborations across the Northwest Territories. The Laurier Yellowknife Research Office continues to build strong relationships with researchers in government departments, and a new cohort of graduate students have been recruited. Northern Water Futures is off to a great start and we are looking forward to a productive research season this summer.

Interpret results

Co-creating of Indigenous Water Quality Tools

1 WHAT IS THE PROBLEM?



* "...within Canada's First Nations Communities, one-third of the population considers the primary source of drinking water to be unsafe to drink, and 12% of First Nations communities must boil their drinking water."³

2 OVERALL OUTLOOK

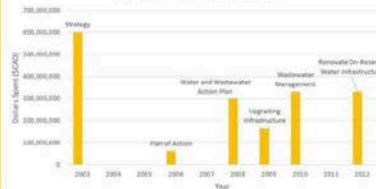
First Nations with the most days under a water advisory



The issues related to water are noted in many indigenous across the country - including the sites under investigation in this project.

3 EXISTING MEASURES & MAJOR CHALLENGES

Canadian Government's Financial Commitments for Upgrading
Water Systems on First Nations Land



Contaminated Poor

water

United water

Poor wastewater

The Project "Co-creating of Indigenous Water Quality Tools," funded under the Global Water Futures (<https://gwf.uns.ac.uk/>) wherein UNU-INWEH (<http://inweh.uns.edu>) is a partner with McMaster University to examine the governance dynamics related water security status in two distinct communities (Six Nations of the Grand River (Ontario) and Lubicon Cree Nation of Little Buffalo (northern Alberta)).
More information at - <https://socialsciencenews.mcmaster.ca/indigenous/news/co-creating-of-indigenous-water-quality-tools>

4 SOLUTIONS



- Incorporate indigenous knowledge in the decision making process.
- Enforce regulations
- Increase funds for capital, operation, maintenance costs⁴
- Focus on innovative governance mechanisms to facilitate sharing and integration of contemporary science and Indigenous and Local Knowledge.

¹ von der Pfordten, S. and de Lee, R.C. 2022. Water Challenges and Solutions in First Nations Communities, Waterloo, ON: Water Policy and Governance Group.

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² Northern Affairs Canada. (2017). Safe Drinking Water for First Nations Act. Retrieved March 20, 2018, from <http://www.aadncan.gc.ca/en/indian-affairs/indian-services/safe-drinking-water-for-first-nations>

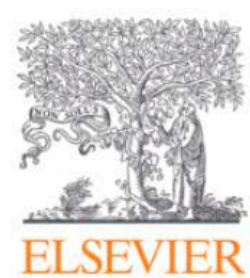
⁴ Human Rights Watch, (2018) *Make it Safe: Canada's Obligations to End the First Nations Water Crisis*. Human Rights Watch.

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Communicate in appropriate language



Weather and Climate Extremes

Volume 3, June 2014, Pages 107-116

open access



The Invitational Drought Tournament: What is it and why is it a useful tool for drought preparedness and adaptation?

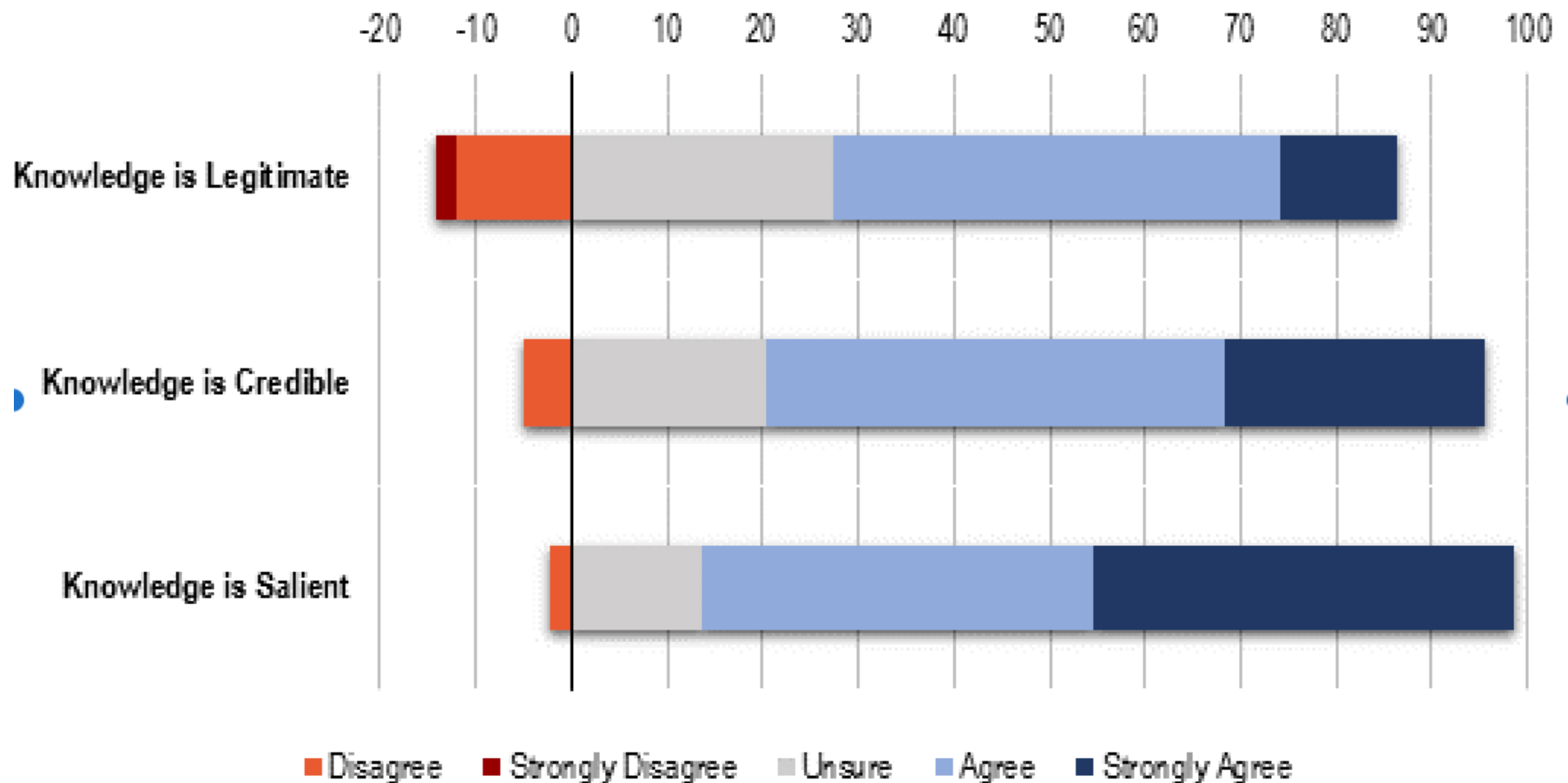
Harvey Hill ^a  , Monica Hadarits ^a , Richard Rieger ^b , Graham Strickert ^c , Evan G.R. Davies ^d , Kaitlin M. Strobbe ^a 



running water,



Evaluate success





And the iterative engagement loop continues...

- ...as the project moves through its components or subthemes
- ...into new phases of the project
- ...into new projects as the relationships grow and the questions evolve



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Moving Forward: KM Core Team Initiatives



KM Services

- **PLANNING AND INITIATION**
 - Workplan development
 - KM strategy development
 - Collaborator identification and onboarding
- **KM ACTIVITIES**
 - Committees and meetings
 - Workshops and seminars
 - Translation materials (e.g. newsletters, policy briefs)
 - Websites, apps, and visual materials
 - Knowledge dissemination

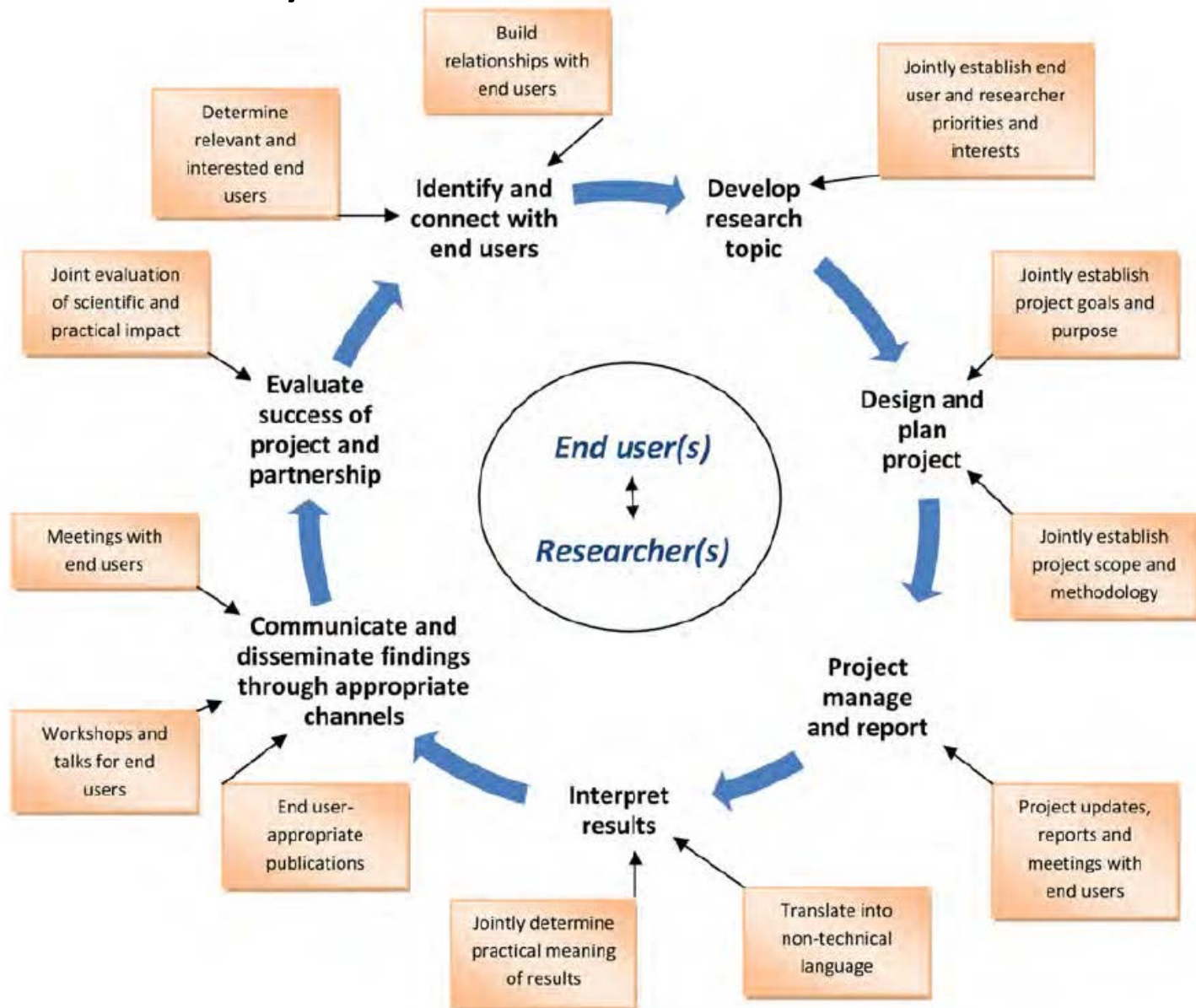


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KM Services

- **NETWORKING AND RELATIONSHIP**
- **PROGRESS TRACKING AND MONITORING**
- **REPORTING AND ADMINISTRATION**

KM Best Practices cycle





KM Champions Network (KMNet)

- Composed of nominated contacts from each project
- Improve efficiency, interaction, and capacity building by identifying project-specific people to liaise with the KM team
- Increase access to ongoing operations at the project level
- Identify links between GWF projects across the network
- Monthly gatherings via conference call or WebEx



KM Resource Library

- Library of templates, best practices and other information generated through the network
- Resources to build KM capacity
- Available to all projects
- <https://gwf.usask.ca/Resources/KM.php>



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Feeling Inspired? Got new KM ideas? Want to dig in? We can help...



Stephanie Merrill
University of
Saskatchewan



Andrew Spring
Wilfrid Laurier
University



Stephanie
Morningstar
McMaster University



COMING SOON
Nancy Goucher
University of
Waterloo

Advisors: Lawrence Martz (USask), Kelly Munkittrick (WLU), Kevin Boehmer (UW), Dawn-Martin Hill (McM)

Contacts @ <https://gwf.usask.ca/Resources/KM.php>



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