



# IMPLEMENTING FOR IMPACT – PART A: INCORPORATING MONITORING SYSTEMS TO TRACK SOCIETAL IMPACT

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*AESIS Course: Institutional Structures for Societal Impact of Science*

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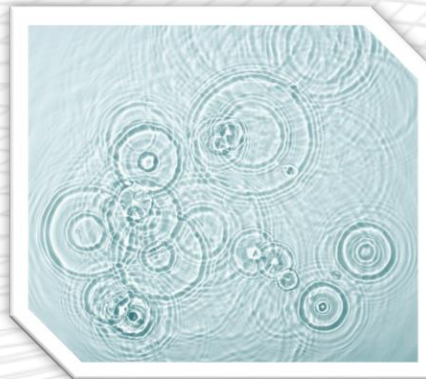
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*Director, Alberta Innovates Impact Action Lab*

**24 May 2023**



# WHO WE ARE: THE PURPOSE OF THE IMPACT ACTION LAB



- The IAL partners with ecosystem players to amplify and activate the economic and societal impact of their Research and Innovation investments
- We are a Global Research and Innovation Impact Network (GRIIN) of experts and practitioners
- We work with institutions to enhance their capacity by incorporating performance and impact management systems that generate value and provide benefits to their community

# Overview

## 1. Welcome & Human Histograms

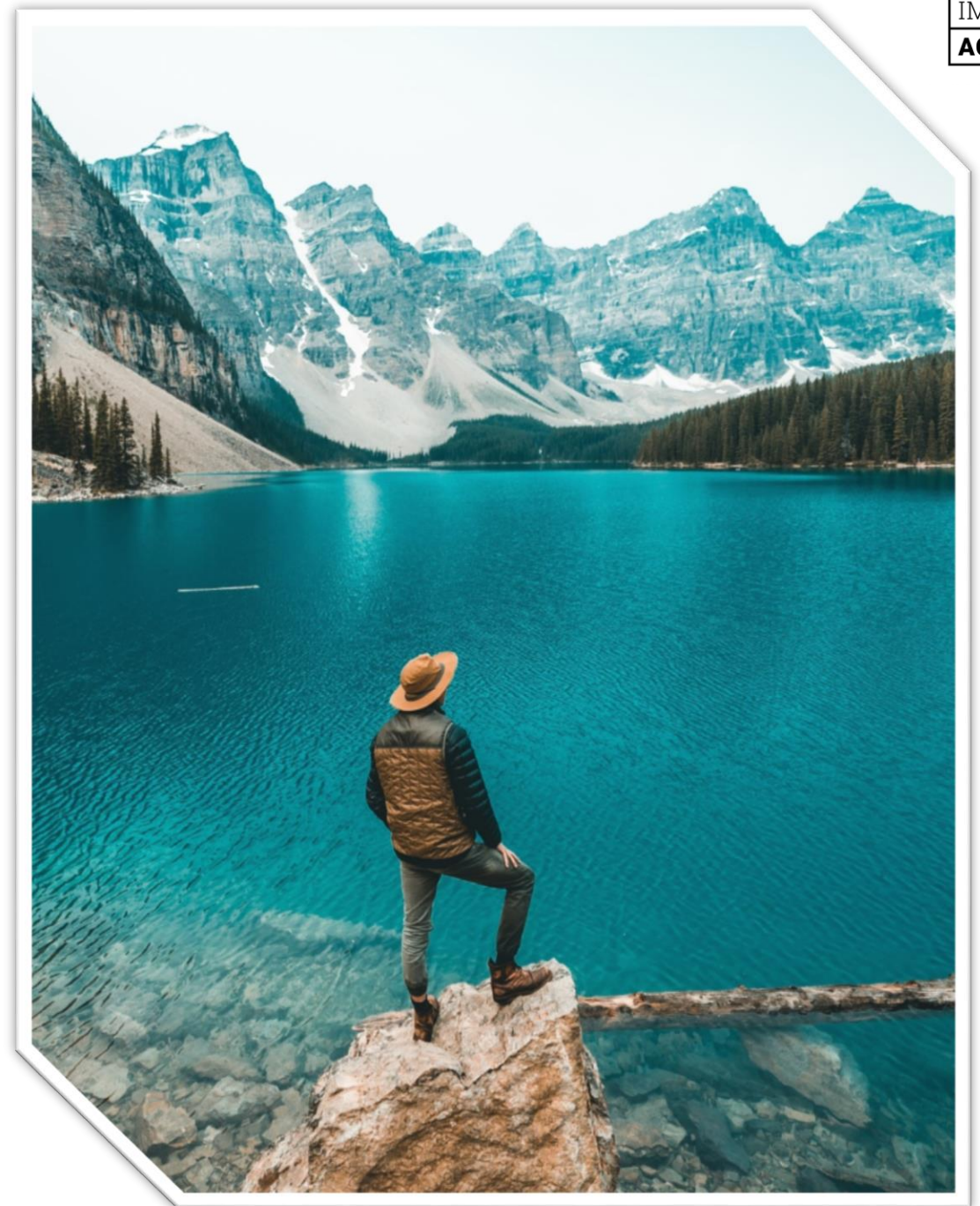
## 2. Setting the Context for Measuring Research Impact

- *Select Metrics that matter – understand the 'What', 'Why' and 'Who' of impact*
- *Identify monitoring tools for measuring institutional and societal impact*
- *Considerations when implementing 'fit for purpose' approaches for measuring societal impact – Part A*



# Learning Outcomes

- Awareness of drivers for research impact
- Understanding of different impact frameworks and tools for measuring and demonstrating impact
- Know what to consider when tailoring tools for embedding societal impact

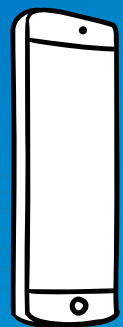




# But first, something fun: Human Histograms







# Instructions

Play along on your smart device or open a browser window:

- Go to [www.menti.com](https://www.menti.com), and enter the code **5534 2991**
- For each topic, choose the option that best matches your preference
- Notice how your preference compares to that of the other participants



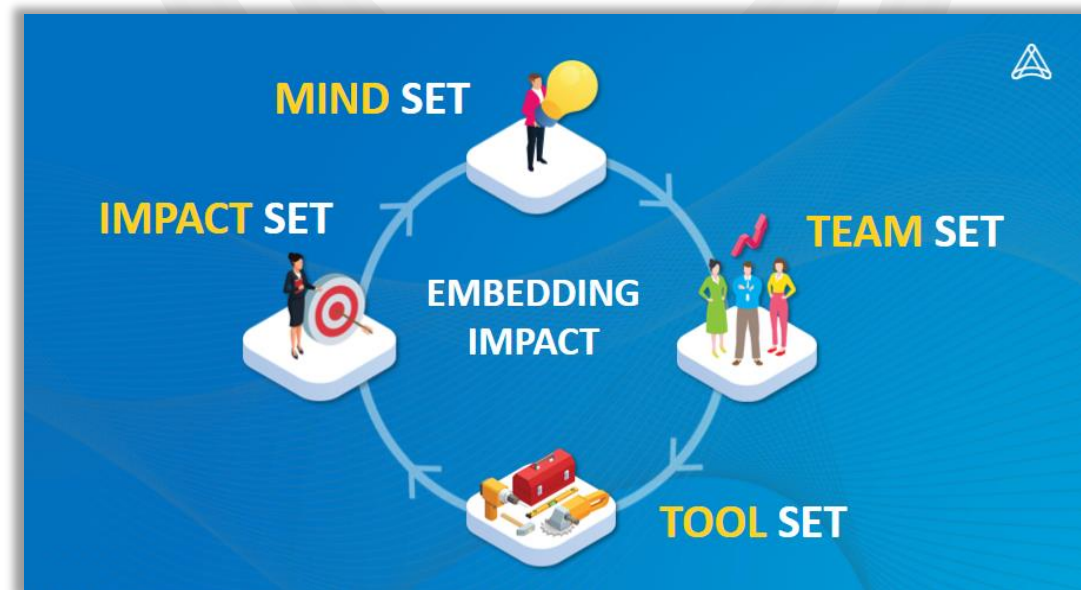


# SELECT METRICS THAT MATTER...

LEARNING OBJECTIVE: UNDERSTANDING THE CONTEXT: THE WHY, THE WHO  
AND THE WHAT



# The House that Impact Built

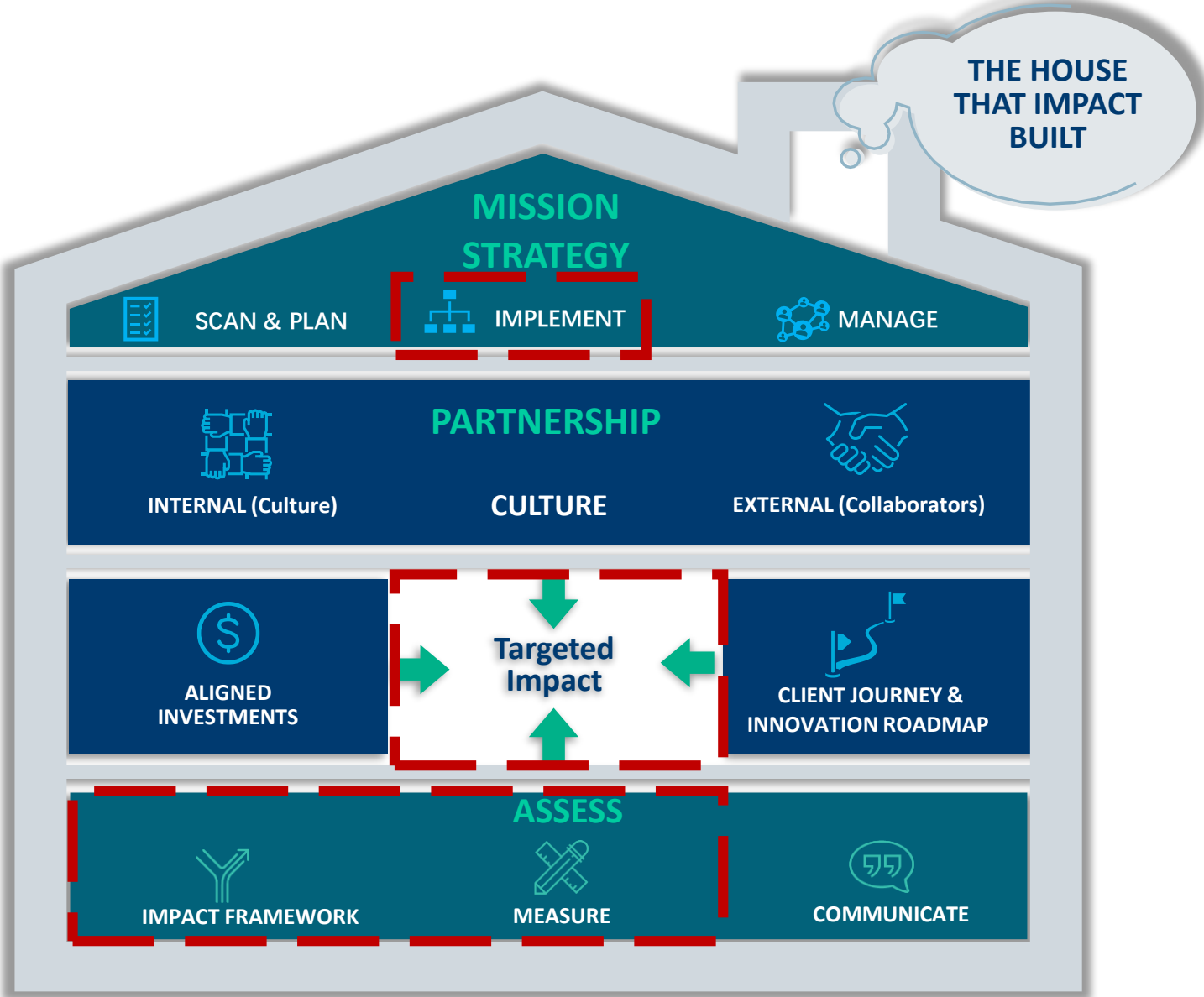




# FRAME 2: THE HOUSE THAT IMPACT BUILT

## MAKING AN IMPACT: FIT FOR PURPOSE Performance Impact Management System (PIMS)

- *An Integrated, Outcomes-Focused, Systems Lifecycle Approach*

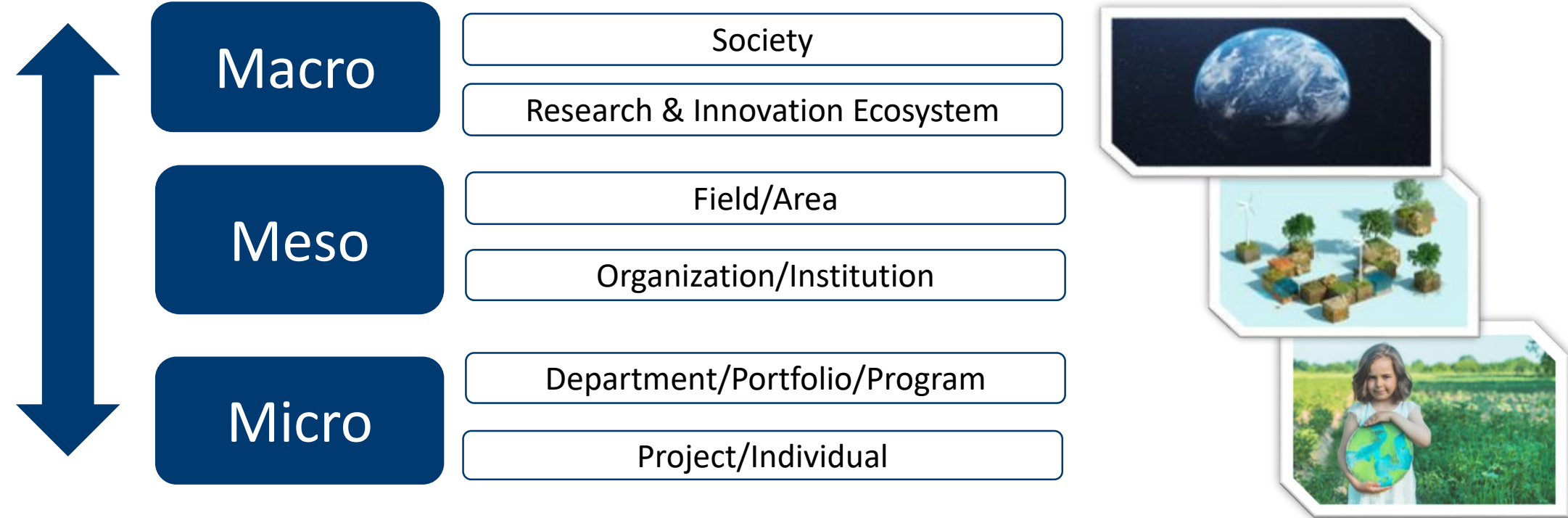


 **Continuously IMPROVE & ADAPT**

Source: Alberta Innovates Impact Framework 3.0

# Key Concept: Different Unit of Analysis

The unit of analysis\* is the “entity” being assessed. To measure impact you need to identify your unit of analysis and whether you are assessing at one unit or multiple units of analysis



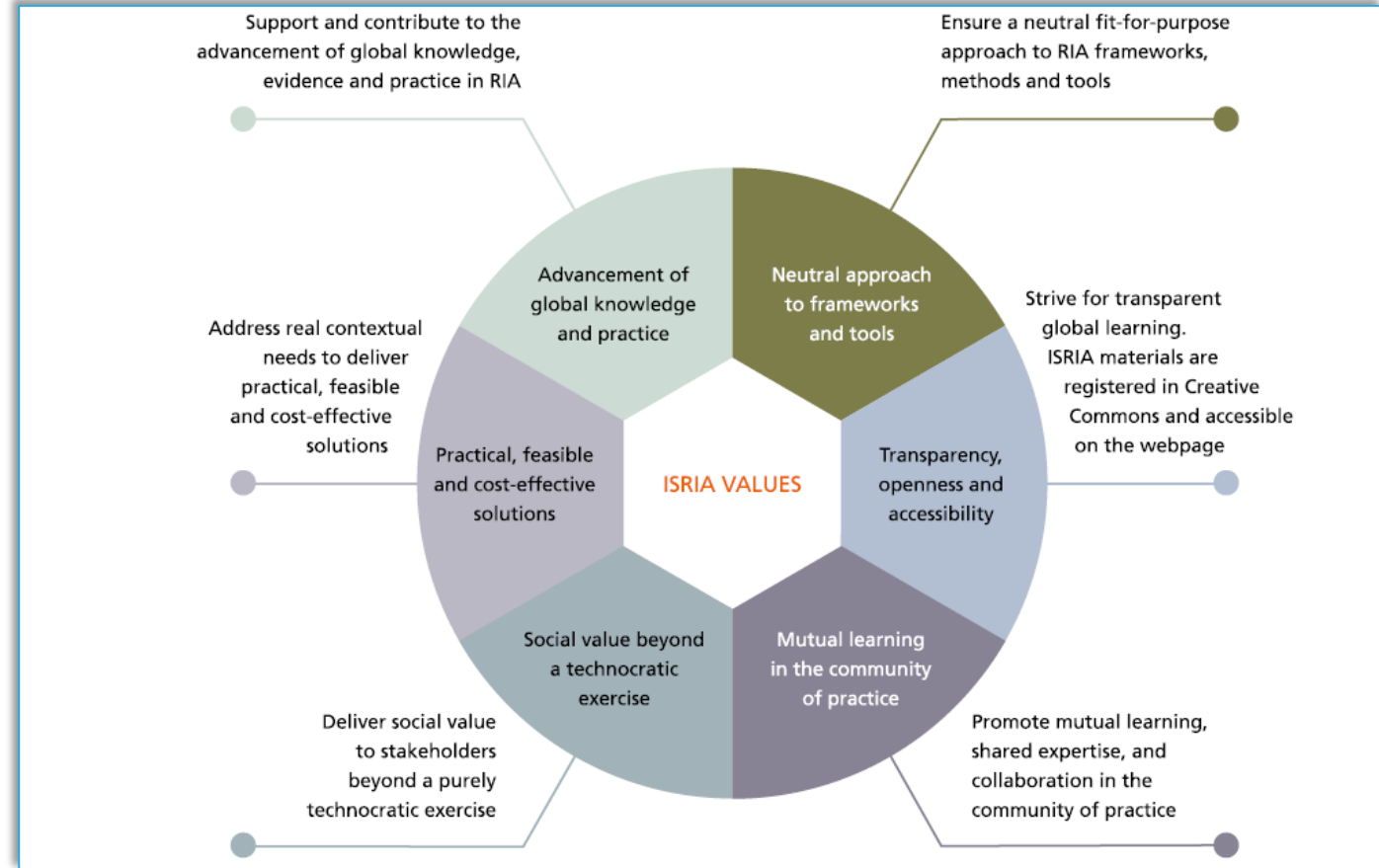
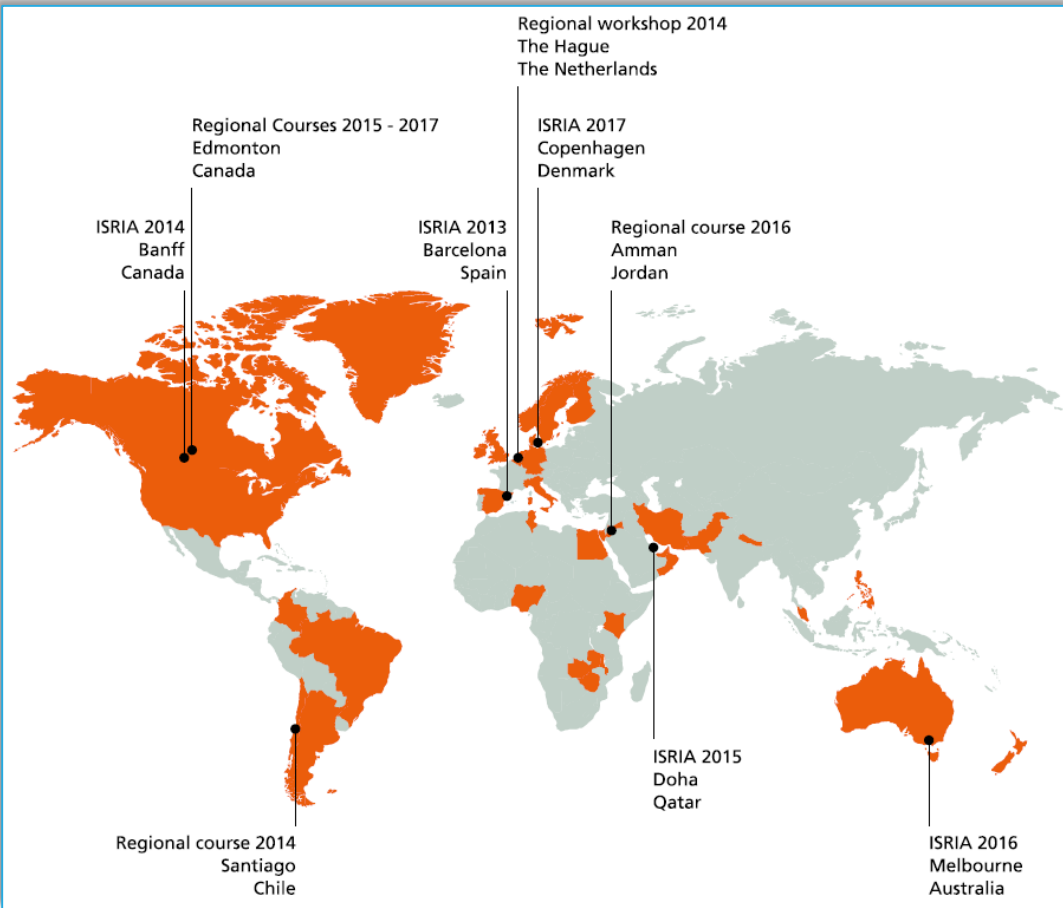
*\*Note: sometimes known as level of ‘aggregation,’ ‘application,’ or ‘analysis’*



- *Why is research impact important?*
- *How can we better track our impact?*



# International School on Research Impact Assessment (ISRIA)



The International School  
on Research Impact Assessment

<https://www.theinternationalschoolonria.com/resources.php>

**Acknowledgement:** The materials and resources used in this presentation are primarily based on the materials from the International School on Research Impact Assessment



# Drivers

“When it comes to research **governments the world over** are asking more questions about whether they are getting **value for money**... whether it is done implicitly or explicitly, everyone in that process is thinking about **impact**”

Peter Gluckman, Chief Science Adviser to the Prime Minister of New Zealand

*What are the  
motivations  
for impact?*

## The 6 A's



*Source: Parks, Sarah, Daniela Rodriguez-Rincon, Sarah Parkinson, and Catriona Manville, The changing research landscape and reflections on national research assessment in the future. Santa Monica, CA: RAND Corporation, 2019*



# What is Impact? Many Definitions

## Most Widely-Used Definition

*“...Positive and negative, primary and secondary long-term **effects** produced by a development intervention, directly or indirectly, **intended or unintended**.”*  
(OECD, 2002)

## Making An Impact.. The Ripple Effect

*Gain a better understanding of what difference is made in improving the lives of people*



### Impact GOES

BEYOND what  
research HAS, DOES &  
PRODUCES

To the DIFFERENCE it  
makes downstream:

the ‘SO WHAT’ to  
‘Now What’

# Highlight the **Who** in Impact

WHO do we need to engage and partner with to make an impact?

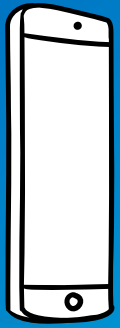
Health Providers, Charities, Industry...

WHO is being impacted by Research?

Public, Policy makers, Patients, Families...







# Poll & Discussion

- Go to [www.menti.com](https://www.menti.com), and enter the code **5534 2991**



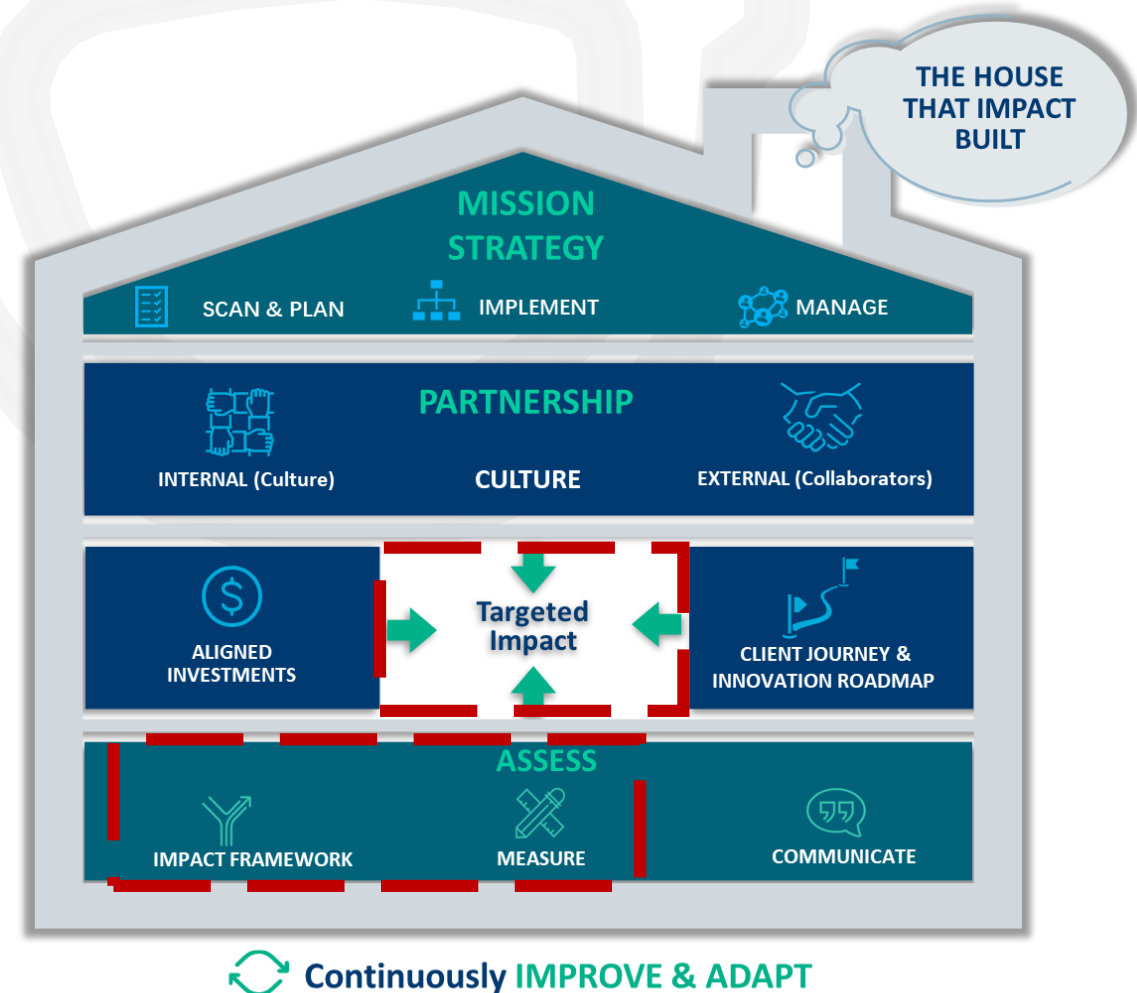
*What are other drivers of **impact** from your organization's perspective?*



# IDENTIFYING MONITORING TOOLS FOR MEASURING SOCIETAL IMPACT

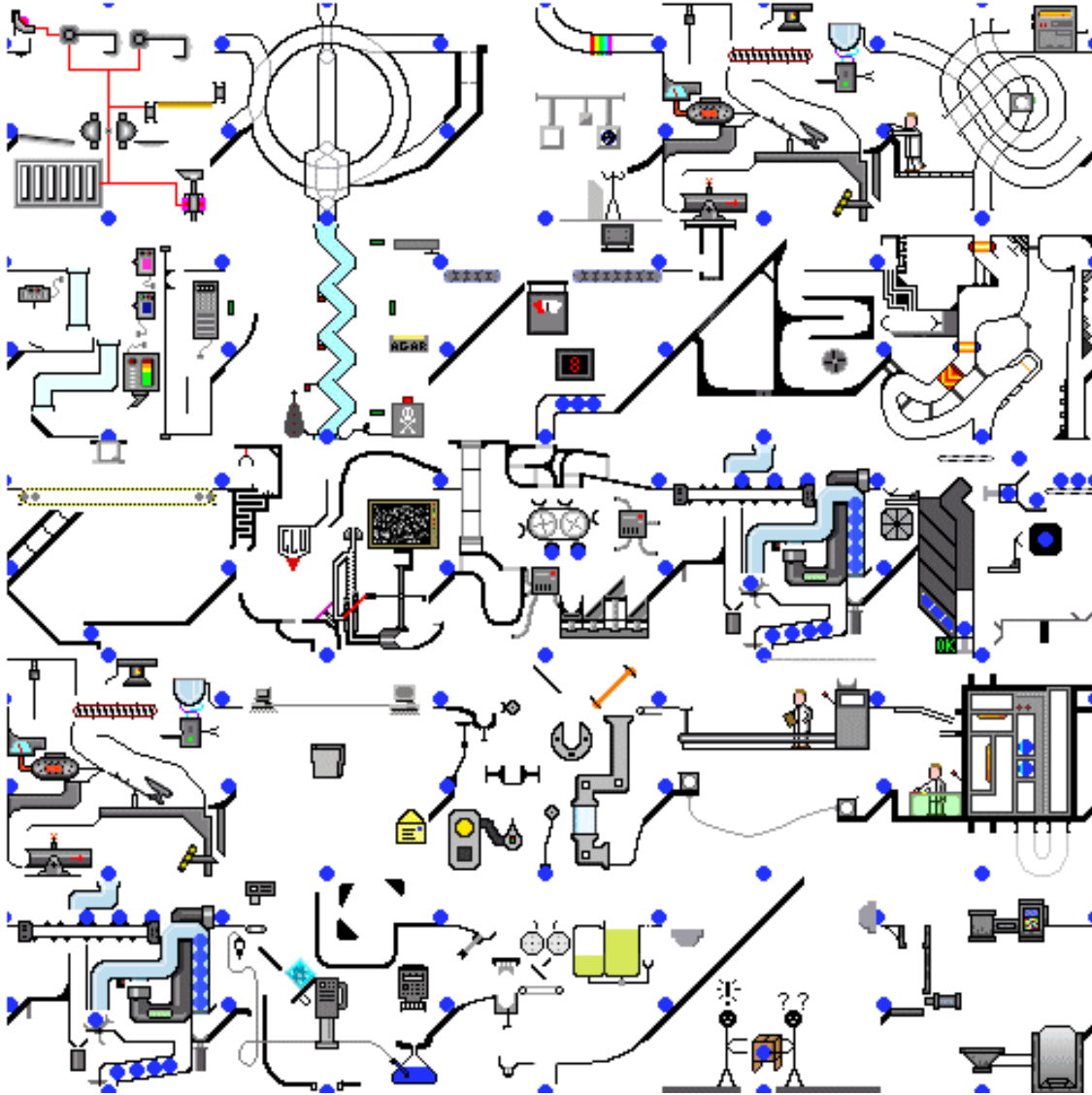
LEARNING OBJECTIVE: UNDERSTANDING THE DIFFERENT IMPACT FRAMEWORKS  
AND TOOLS FOR MEASURING IMPACT







IMPACT	Ideas. Insights. Impact.
<b>ACTION</b>	LAB



## How do you go about making an impact?

# Research impact frameworks that incorporate societal impact

- Identify the framework(s) used by:
  - Similar **purpose(s) and applications**
  - Key stakeholders
- Consider using a common framework with the key stakeholders
- Review literature on existing frameworks
- Might be necessary to revise an existing framework or develop a new one

*“Frameworks can provide insight to help us understand how to assess research & innovation impact, identify the tools and measures to be used, and enable lessons to be learned from others who have previously implemented the frameworks”*

**K. Graham**

# National & Global Research Impact Frameworks for Measuring and Demonstrating Impact



- Canadian Academy of Health Science (CAHS), Canada



- Research Excellence Framework (REF), UK



- Excellence in Research for Australia (ERA), AU



- Productive Interactions (SIAMPI), EU



- Broader Impacts (NSF), USA



***Sustainable Development Goals; Environment, Social, Governance are other widely used frameworks for measuring societal impact***



# CAHS “Health Impact” Framework

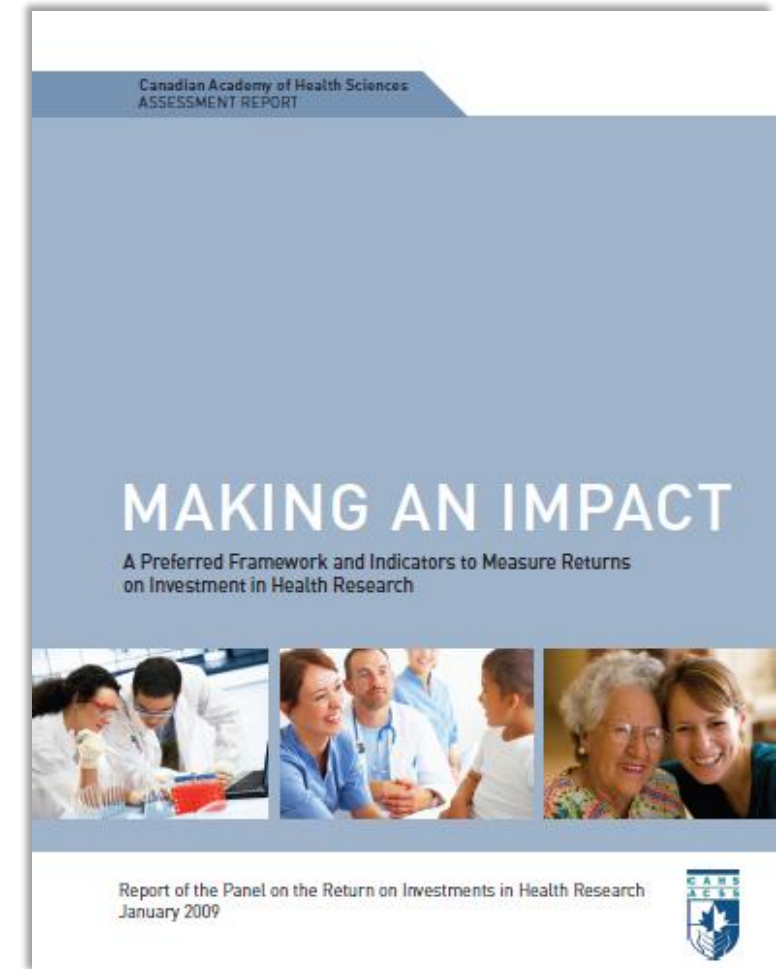
**Origin:** Based on the Payback framework. Aims to improve consistency and comparability across health research system while retaining flexibility for accountability (ROI)

**Scope:** Five impact categories

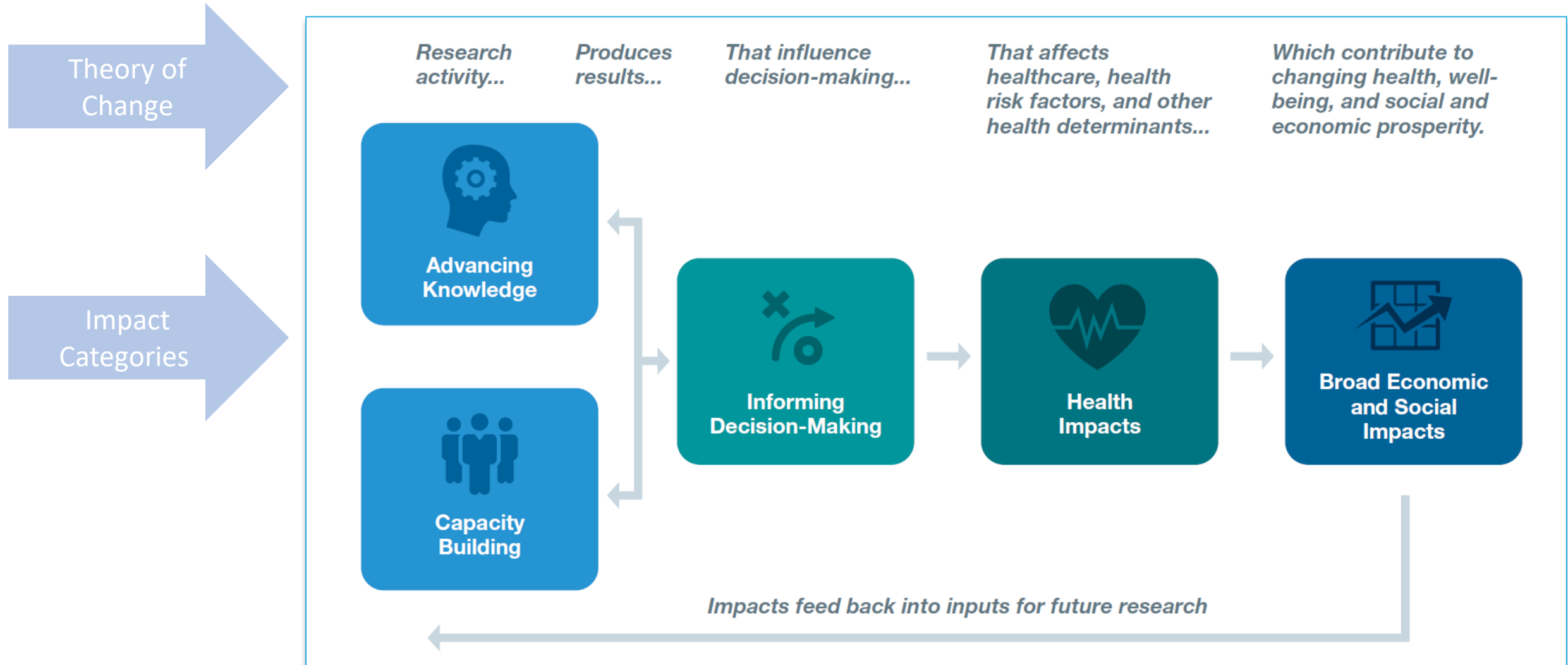
**Measurement:** Total of 66 indicators. Identifies, CIHR pillars, levels of aggregation, potential data sources

**Use:** CIHR (Canada), AAMRI (Australia)

**Wider Applicability:** Developed in health, but can have broader applications

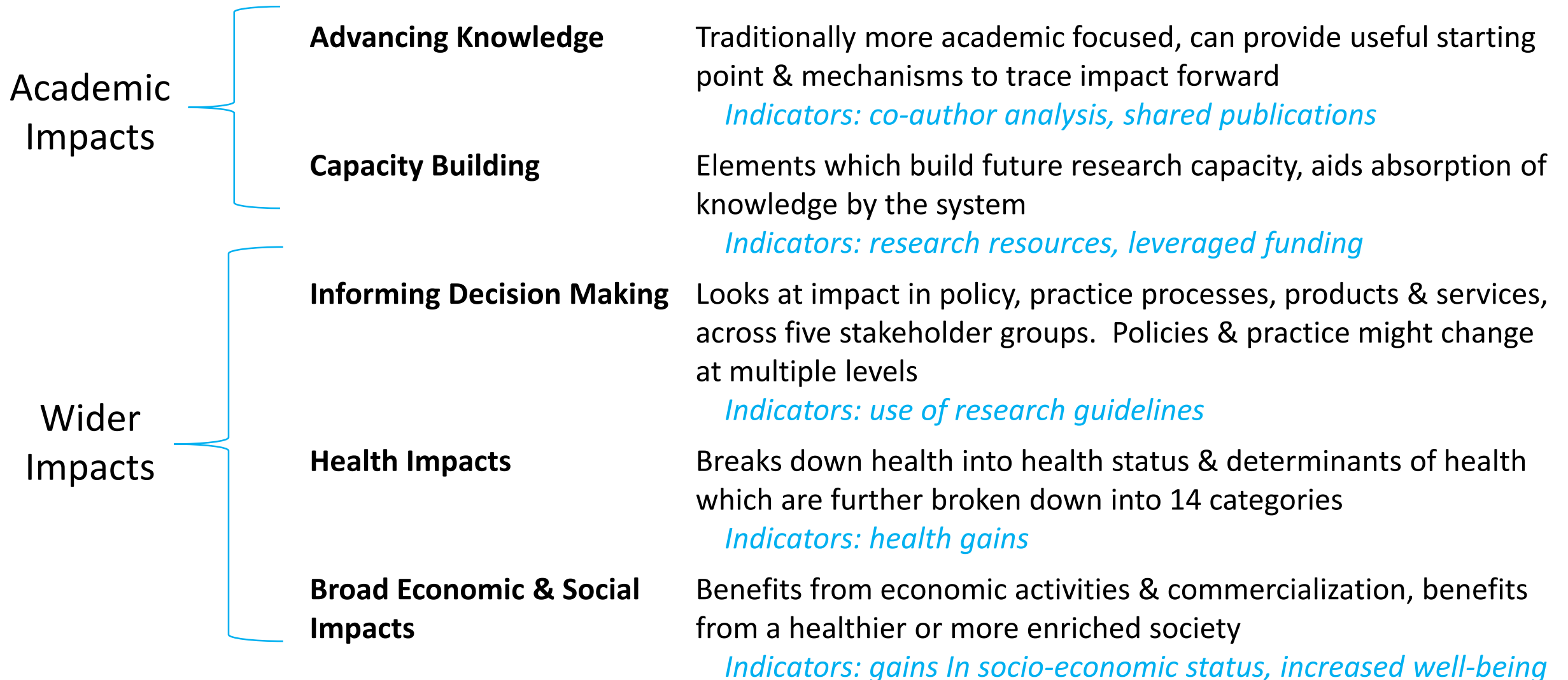


# Simplified Version of CAHS Framework



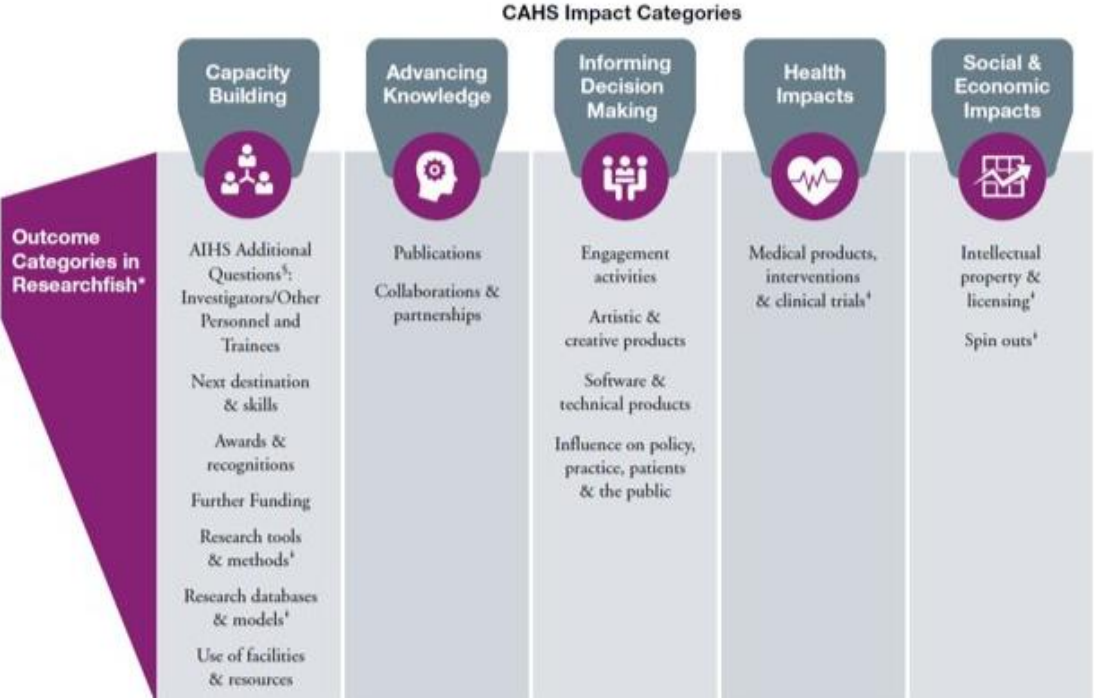


# CAHS Measuring Impact – Indicator Toolbox

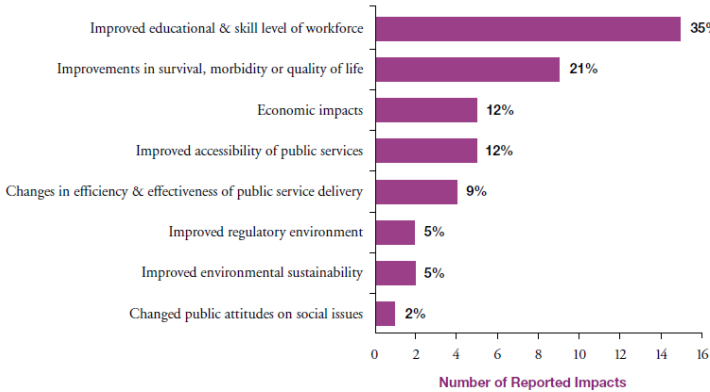




# Alberta Innovates Tracking Impact: Illustrative Example



Impacts of Influences on Policy, Practice, Patients and the Public



## EXEMPLAR 14

### INFORMED DECISION MAKING

## Connecting through creativity

A CRIO research group led by Dr. Karen Goodman successfully uses a community-driven approach to bring together members of northern Canadian communities, their health care providers and scientists.



**Johanna Edwards**  
Logo Contest Winner from Fort McPherson,  
Northwest Territories, Canada  
Drawing completed 2012  
11 years old, grade 5

“

This collection showcases a strong community-researcher partnership in which questions are posed and solutions to health problems are discovered together.

**Dr. Karen Goodman**

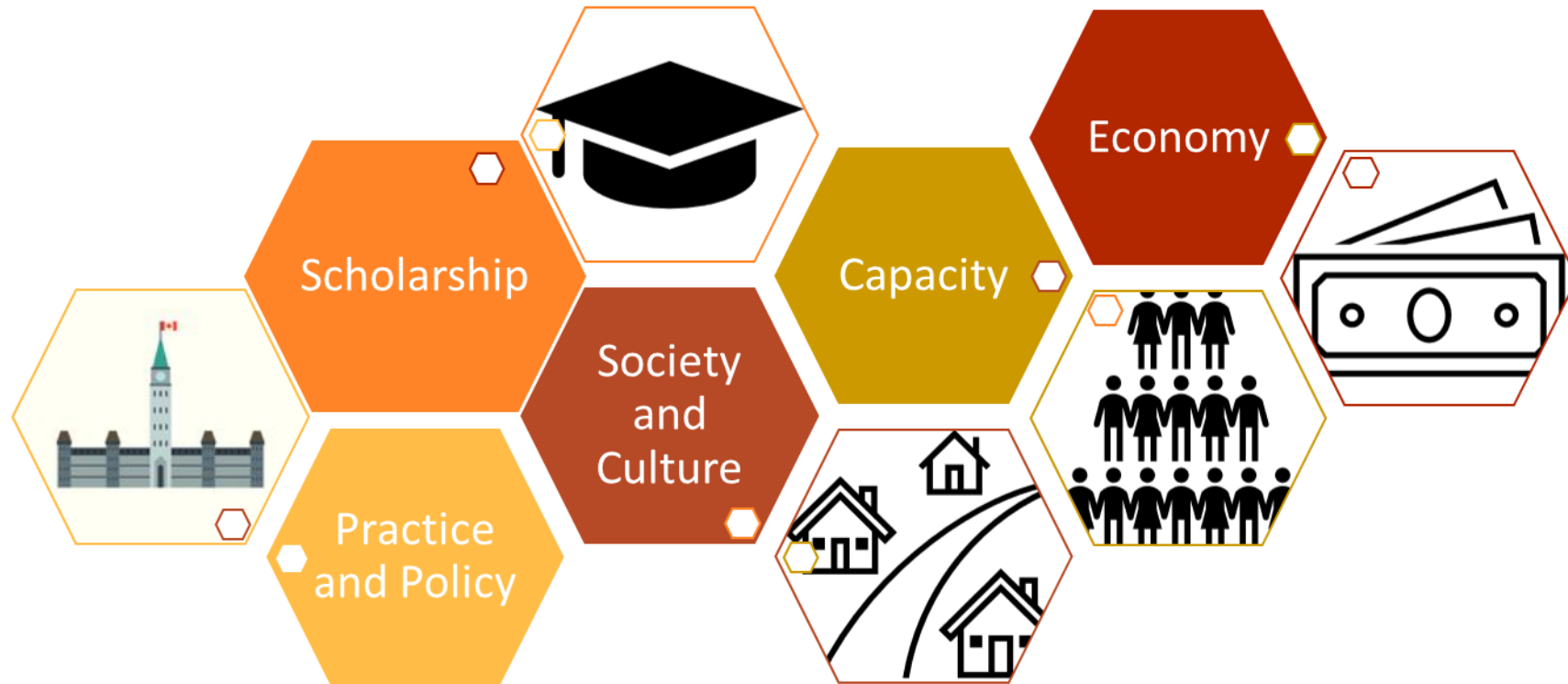
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The researchers use this approach to share knowledge of how to address concerns about the health burden due to the *H. pylori* bacterium, which causes an infection that can lead to stomach cancer. The approach included an art competition as one means of opening up discussions around research on this health concern within communities. At the start of each of three community projects, Dr. Goodman's research group invited community members to submit entries for a project logo contest; the logos had to include a visual representation of the *H. pylori* bacterium.

“The drawings capture the imagination and creative spirit of community members. They illustrate community perspectives on a specific health risk and on research aimed at promoting health and wellbeing,” Dr. Goodman says. The contest increased the community members' enthusiasm for the local project as participants and valued partners, which enhanced the quality and impact of the research.

Research group member Amy Colquhoun (Vanier Canada Graduate Scholar) arranged an exhibit of the logo entries at the University of Alberta that went on to become a permanent installation outside the Centre of Excellence for Gastrointestinal Inflammation and Immunity Research at the university.

# Another Framework Similar to CAHS





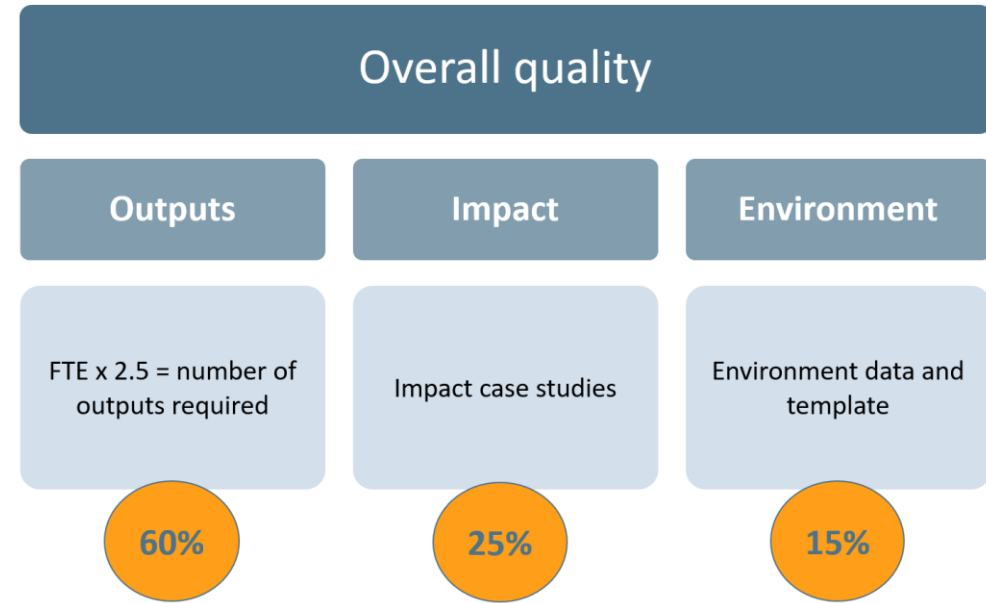
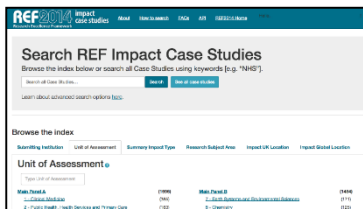
# REF Uses Case Studies to Assess Impact

*Impact* is defined as ‘any effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’

## Impact Case Studies

Using honeybees as an effective deterrent for crop-raiding elephants, REF 2014 Impact Case Study

<http://impact.ref.ac.uk/CaseStudies/CaseStudy.aspx?Id=17588>



## REF 2021 Evidence of Impact:

Who or what has benefited or been impacted on?

How have they benefited or been impacted on?

What kind of evidence can demonstrate this?

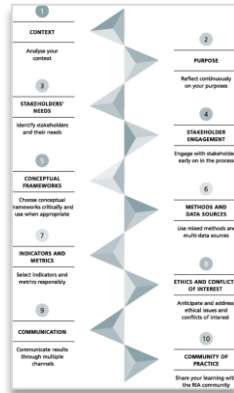


# Best Practice Methods and Tools to Measure Impact

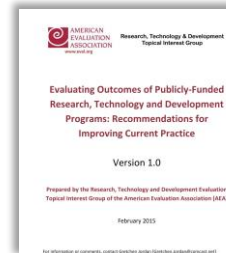
## Best Practices

- Systematic Literature Reviews
- White Papers
- Standards, Guidelines, Professional Associations

### RECOMMENDATIONS ISRIA



### European Commission



## Indicator Sources

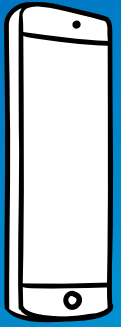
- Indicator libraries
- Software application tools (e.g., Researchfish, Altmetrics, Dimensions etc.)
- Grant applications and reports
- Evaluations and surveys
- Text mining impact case studies

## Methods (Qualitative & Quantitative)

- Bibliometrics
- Network Analysis
- Econometrics & economic analysis
- Surveys, interviews, focus groups
- Case Studies etc.



*Metrics alone are **not** sufficient for assessing impact*



# Poll & Discussion

- Go to [www.menti.com](https://www.menti.com), and enter the code **5534 2991**



*What are your [organization's] key  
Research Impact Categories?*





# CONSIDERATIONS WHEN IMPLEMENTING AND EMBEDDING 'FIT FOR PURPOSE' APPROACHES FOR MEASURING SOCIETAL IMPACT – PART A

LEARNING OBJECTIVES: PROCESS TO CREATE FIT-FOR-PURPOSE MEASURES





# IMPACT BY DESIGN : START WITH THE END IN MIND

impact

*"The starting point of [making an impact]  
and any evaluation should be its intended  
use by its intended users"*

# Why is Measurement Important?



Peter F. Drucker

*“What gets measured gets improved”*

# Perennial Challenges in Measuring Impact..

Time lags



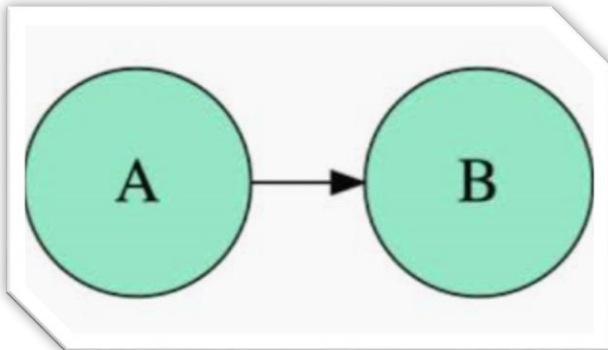
Transaction costs



Data quality



Attribution and Contribution



Unit of assessment



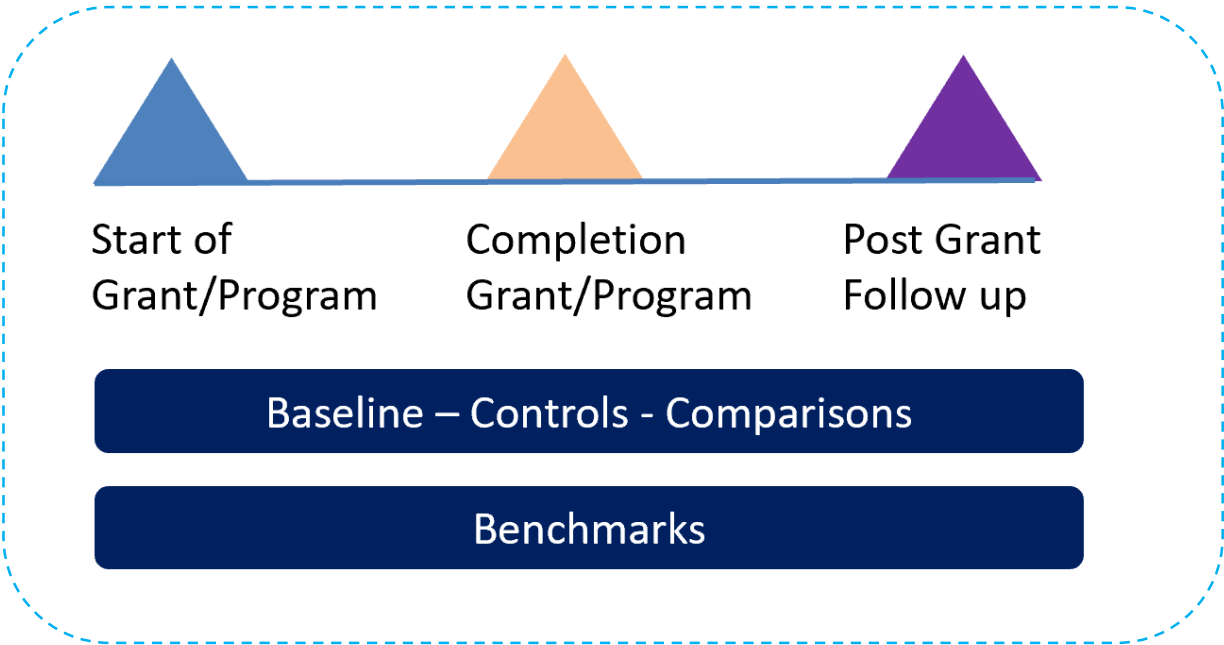


# Choosing the Assessment Design and Methods:

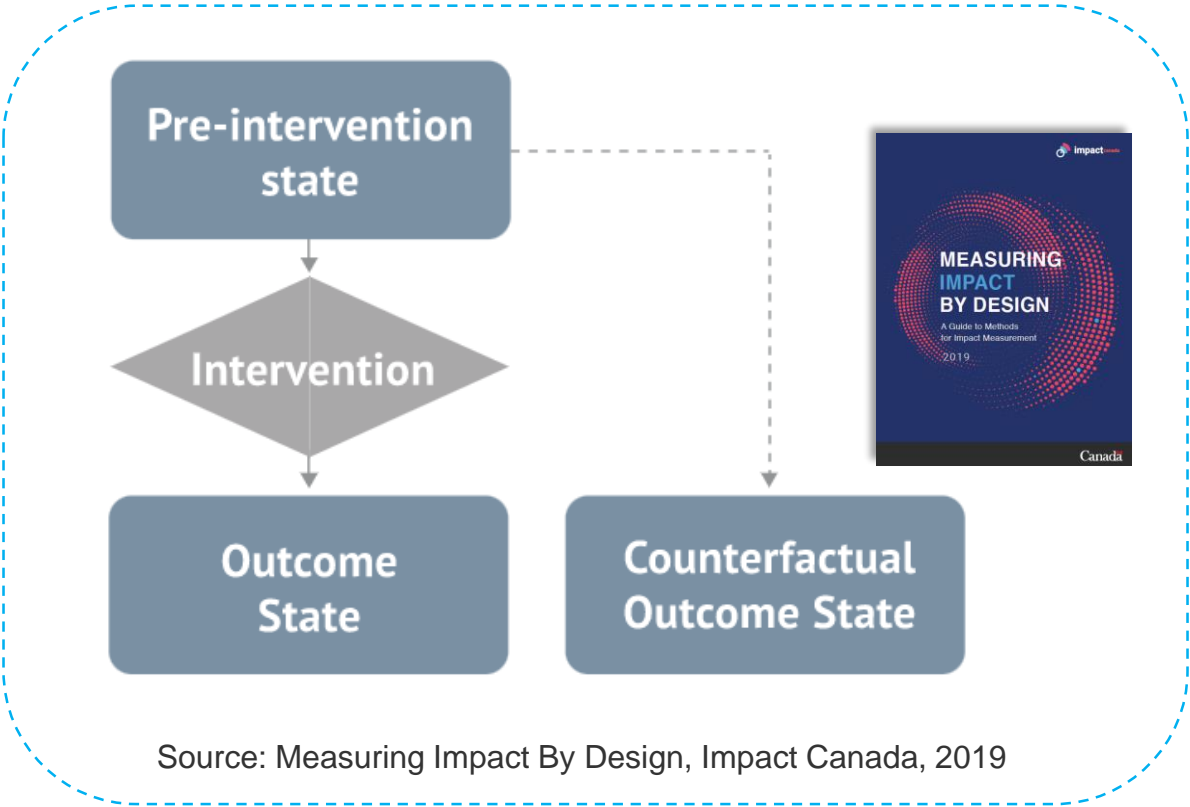
## Establishing the Counterfactual

### Life Cycle Approach

Measuring Change Over Time According to Purpose and Answering Stakeholder Questions

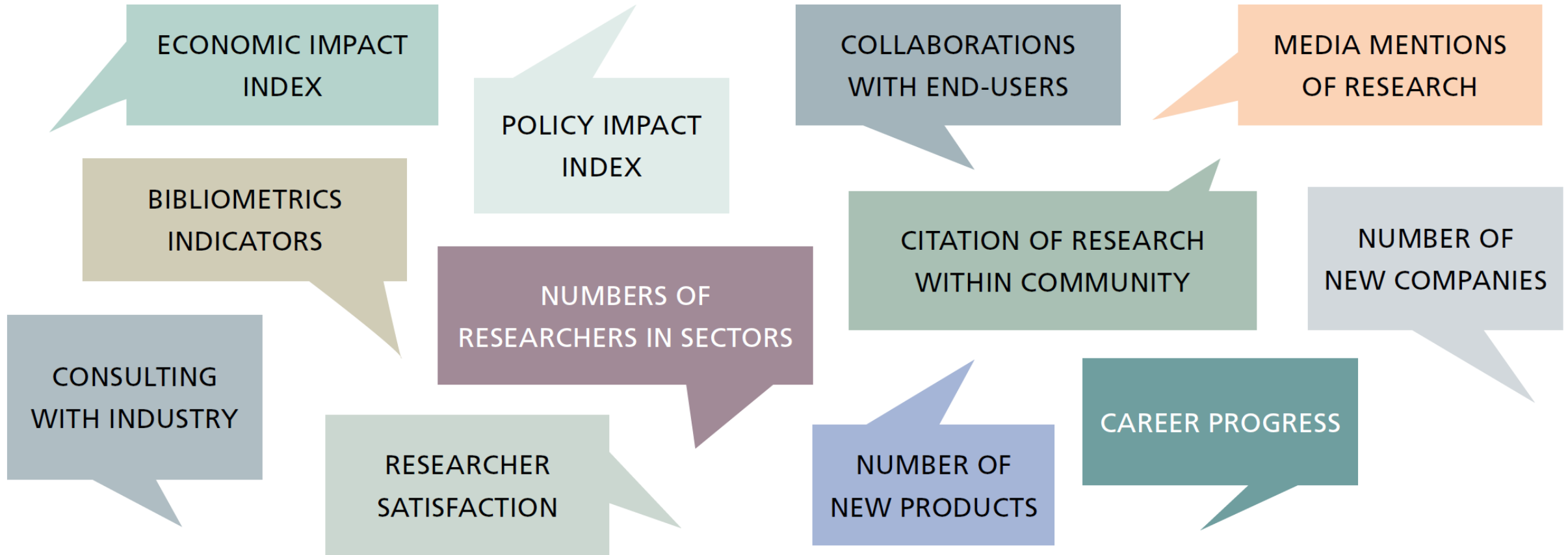


### Choice of design & methods



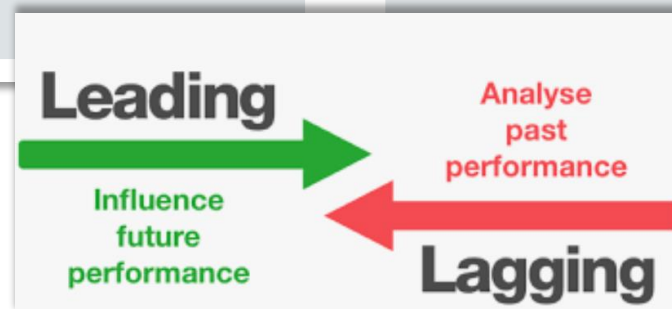
Source: Measuring Impact By Design, Impact Canada, 2019

# Using Indicators and Measures as Evidence of Impact



# Types of Indicators

LEADING	LAGGING
<p>Gives an indication <b>BEFORE</b> the anticipated impact occurs</p> <p>CHARACTERISTICS:</p> <ul style="list-style-type: none"> <li>• Input-oriented</li> <li>• Hard to measure</li> <li>• Easy to influence</li> </ul> <p>e.g. patient daily referral volumes</p>	<p>Provides the evidence <b>AFTER</b> the impact has occurred</p> <p>CHARACTERISTICS:</p> <ul style="list-style-type: none"> <li>• Output-oriented</li> <li>• Easy to measure</li> <li>• Hard to influence or improve</li> </ul> <p>e.g. patient average referral to admission cycle times</p>





IMPACT

Ideas.  
Insights.  
Impact.

**ACTION**

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**THANK YOU.**

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