

A network diagram with red and black nodes connected by lines, set against a light red background.

The Impact of Social Sciences and Humanities on Society

14-16 October 2020, Ottawa

12.30 – 13.45pm

Impact Lifecycle Management

Kathryn Graham (Chair) – Alberta Innovates

David Budtz Pedersen – Humanomics Research Centre

Thomas König – Institute for Advanced Studies

 ALBERTA INNOVATES

AESIS

 #SSH20

Impact Lifecycle Management: Connecting Impact Planning, Implementation Assessment and Improvement

AESIS Impact of Social Sciences and Humanities
Ottawa, October 16, 2020

Kathryn Graham (Alberta Innovates, Canada)

David Budtz Pedersen (University of Aalborg, Denmark)

Thomas Konig (Institute for Advanced Studies, Austria)

A word cloud featuring the word "welcome" in various languages and scripts. The word "Welcome" is the largest and most prominent, centered in the image. Other words are arranged around it in different sizes and orientations, including:

- Degemer
- Ongietorri
- Akwaba
- Dobrodošli
- Üdvözet
- Welkomma
- Yokoso
- Accogliere
- Nau Mai
- Bem-vindo
- Willkommen
- Benvido
- Toivottaa
- Haere Mai
- Salve
- Tervetuloa
- Acchoje
- Swagata
- Benvenuto
- Welkom
- Velkomin
- Namaste
- Bienvéni
- Witaj
- Bun venit
- Aloha
- Bienvenue
- Huan Ying
- Hosgeldiniz
- Benvignuo
- Fáilte
- Nayak
- Chào mừng
- Vitajte
- Bi xér hati

Overview of Session

Format

- Chair and Discussant
- Three presentations – 3 case illustrations
- Participant Engagement – Polls
Time for Q&A



Dr. Kathryn Graham
(Chair)



Dr. David Budtz
Pedersen



Dr. Thomas König
(Discussant)

Objectives

- **Rethink impact** - engage each other on the research of impact to allow for “experimentation and learning” and creative ways for stimulating impact
 - **Community consensus on guiding principles**
- Consider **integrating** impact using a **lifecycle approach** – connecting the dots
- **Optimize impact** – Holy grail



Impact Defined

Most Widely Used Definition

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

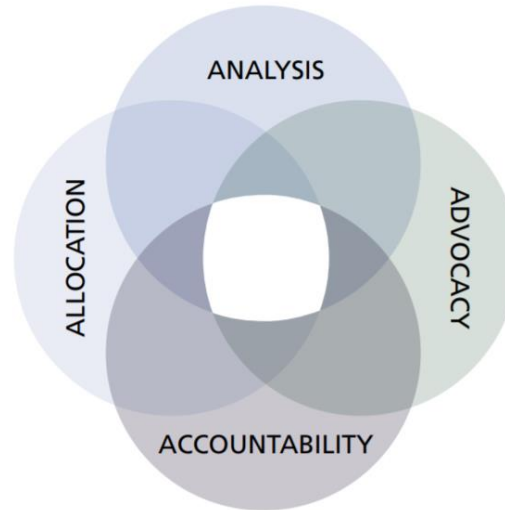
(OECD, 2002)

Generally Beyond Academic

*“... an **effect on, change or benefit** to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia”*

(Research Excellence Framework, UK)

Motivations for Impact



ANALYSIS

What works in research funding?

ADVOCACY

'Makes the case' for research funding

ACCOUNTABILITY

To taxpayer, donors, etc.

ALLOCATION

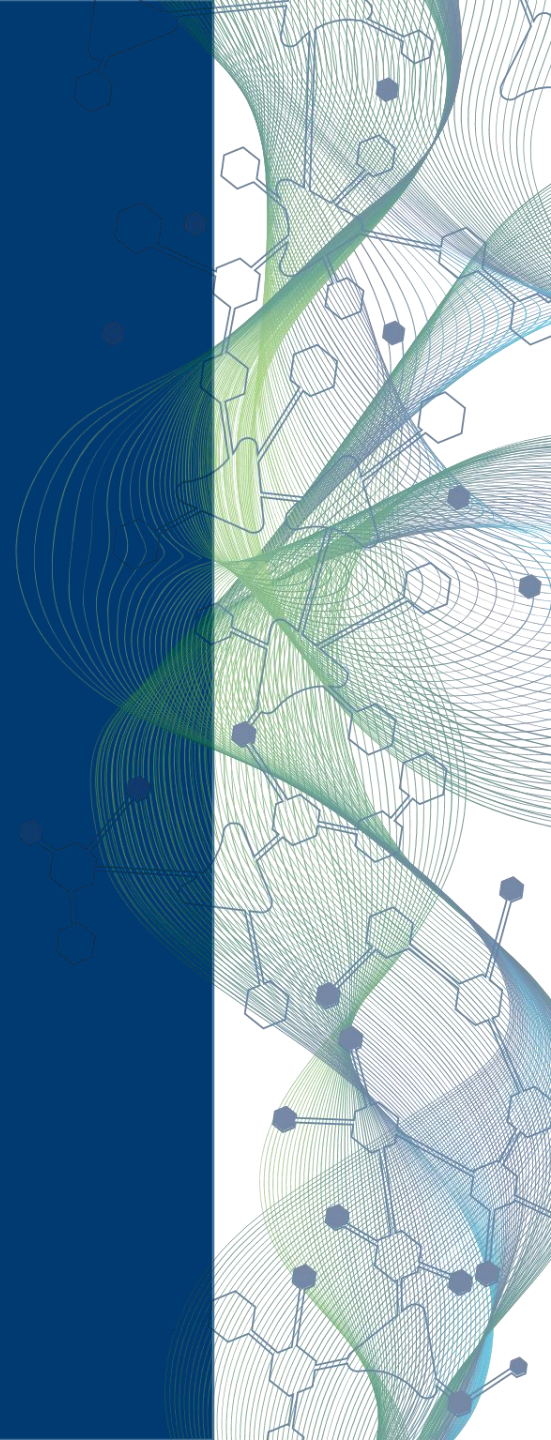
What to fund (institution, field, people etc.)

Source: Morgan Jones, M., Grant, J. Making the Grade: Methodologies for assessing and evidencing research impact in Dean et al (Eds) (2013) 7 Essays on Impact. DESCRIBE Project Report for Jisc. University of Exeter.

Illustrative Case Example

Integrating Impact Across The Climate Change Innovation & Technology Framework (CCITF) Lifecycle

Dr. Kathryn Graham (Executive Director
of Performance Management and
Evaluation)



THE WHY

Alberta Innovates Mission:

Outcomes Oriented

User Driven and Responsive

Collaborative

Strategic

Transparent and Accountable



The Ripple Effect – Together we can Optimize Impact*



*Diversified Economy, Enhanced Environmental Performance, Healthier Population)

Who We Are and What We Do

The Alberta Innovates PME Unit – with its partners and networks develop and implement impact strategies for Research and Innovation. We believe that integrating a performance and impact management system across the organization's life cycle will help achieve intended impacts and ultimately optimize impact.

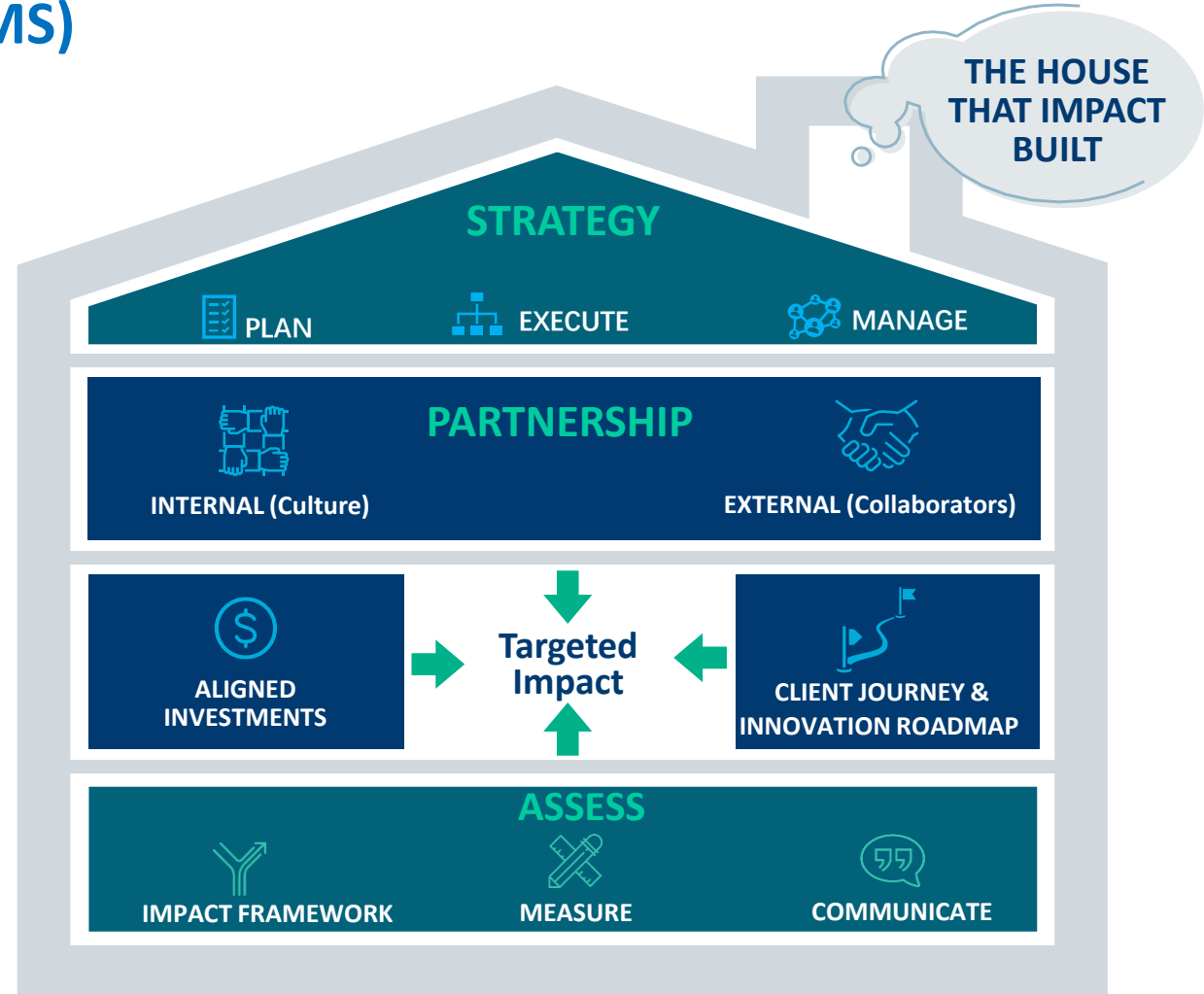
THE HOW:

An Integrated Outcomes Focused Lifecycle Approach Performance Impact Management System (PIMS)

PIMS helps align impact to our organizational mission and strategies. We implement across the lifecycle which allows for top down direction and bottom up engagement and experimentation



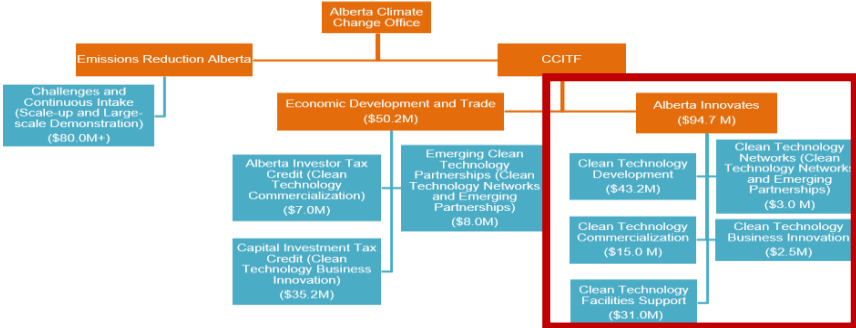
 Continuously **IMPROVE**



Source: Alberta Innovates Impact Framework 2.0

The Challenge: Implementing a clean technology strategy to reduce GHG emissions - We integrated impact across the portfolio lifecycle

4 Organizations / Ministries



5 new programs across 3 Alberta Innovates Business Units with many partners



Clean Technology Development (CTD) Program



Clean Technology Networks (CTN) Program



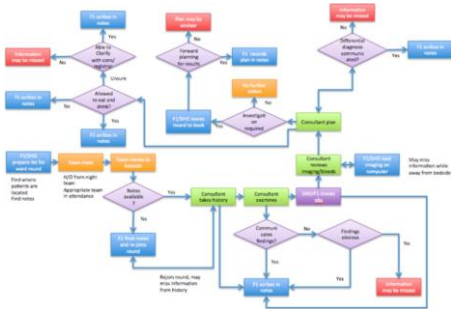
Clean Technology Business Innovation (CTBI) Program



Clean Technology Facilities (CTF) Support Program



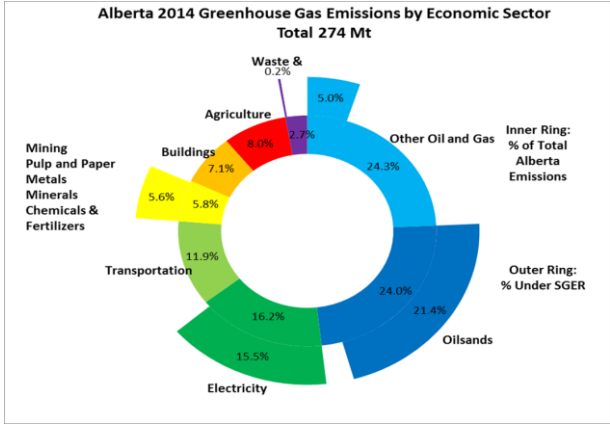
Clean Technology Commercialization (CTC) Program



4 Impact focus areas



8 Sectors



While piloting and refining a new grant process

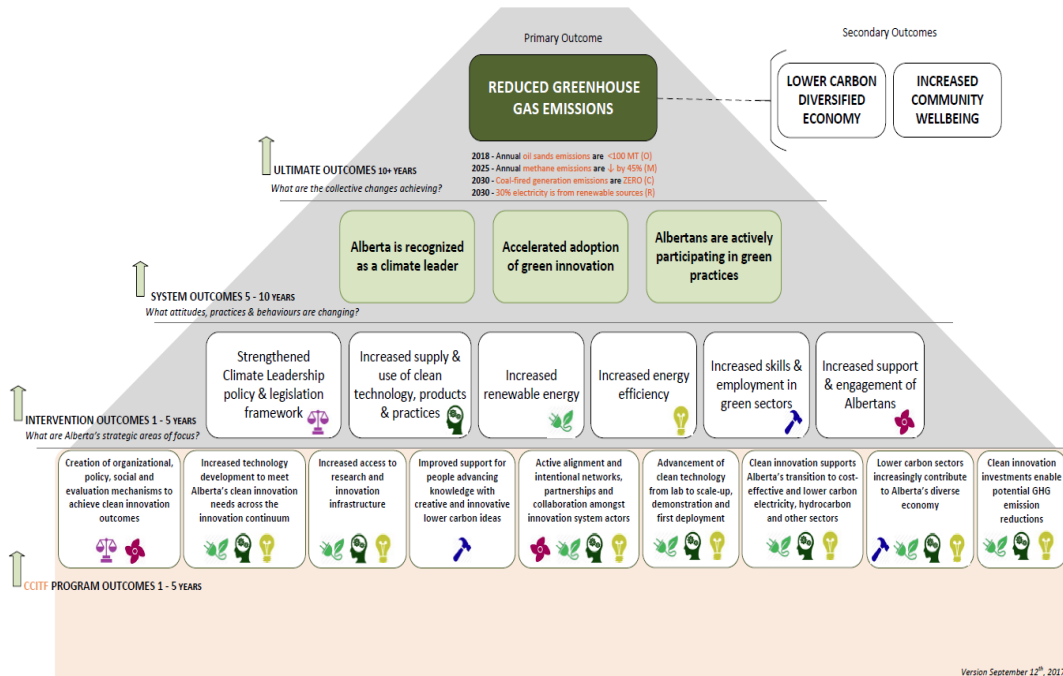
STARTING WITH THE END IN MIND

Co-Designed Co-Implemented Co-Managed

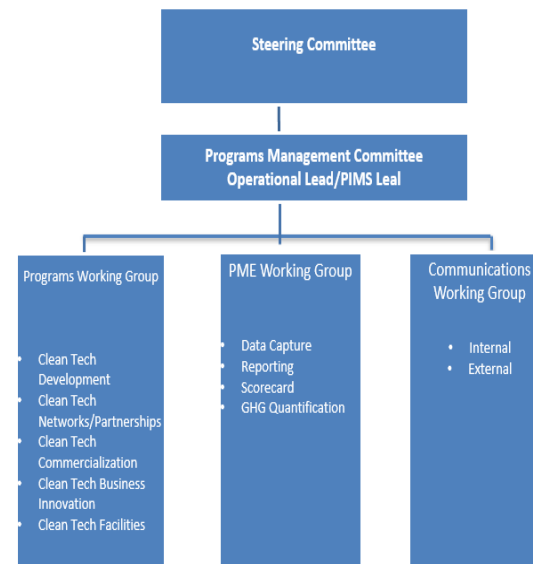


CLIMATE LEADERSHIP PLAN OUTCOME FRAMEWORK- CCITF

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AI CCITF Programs Delivery Governance Structure



- Impact Plan **INTEGRATED** into CCITF Strategic Plan
- Targeted Outcomes
- Pathways to Impact

Implementation Structures and Processes:

- Governance structure
- Project management approach
- Operational/PIMS Dyad model
- Cross organizational/functional working groups

COLLECTIVE EFFORT FOR COLLECTIVE IMPACT – ITERATIVE APPROACH



Communication & Impact Culture Plan

Engagement & Orientation Sessions



What did you like best about the session?

- *“The forum was a great opportunity to network with others in the CCITF ecosystem and get updates from different programs”.*
- *“Explaining and mapping out the complexity of the CCITF program. The positive energy and celebratory focus ... astonishing what we have all accomplished in short time”.*
- *“Lessons learned session, collaboration is the key to success”.*

Lessons Learned Forums

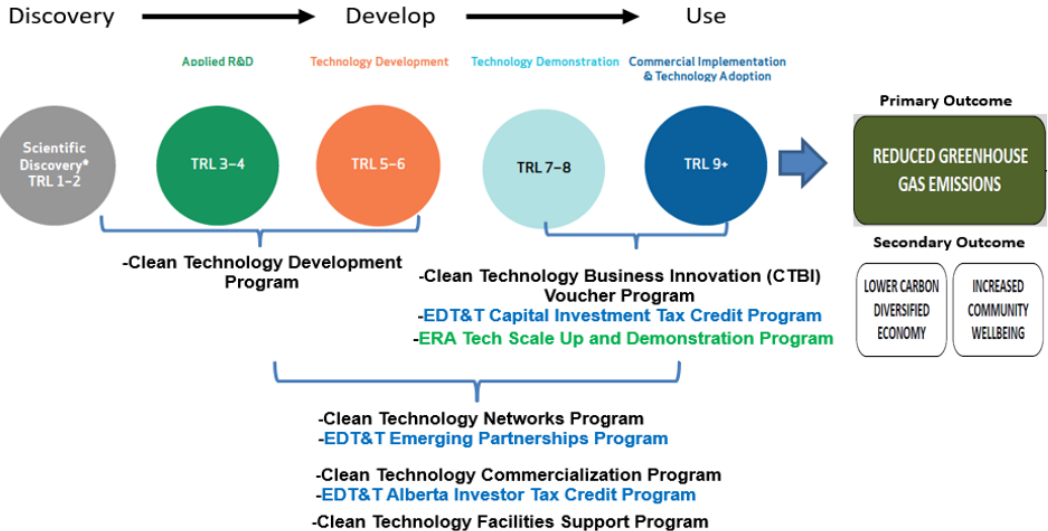


- *Investment philosophy*
- *Outcome focused due diligence criteria*
- *Equity, Diversity, Inclusivity principles*

CCITF Investment Criteria Framework

Criteria	Description	Sub-Criteria	Examples of Program Level Criteria
RELEVANCE	<ul style="list-style-type: none"> • The project demonstrates alignment to one or more organizational and program objectives. 	<ul style="list-style-type: none"> • Strategic alignment to AI and CCITF objectives 	<ul style="list-style-type: none"> • Targeted sector alignment • Targeted applicant/stakeholder alignment • Challenge/Customer alignment to CCITF objectives
EXCELLENCE	<ul style="list-style-type: none"> • The quality and strength of the proposed project concept, design and methods. 	<ul style="list-style-type: none"> • Scientific Merit • Technical Merit • Business Merit 	<ul style="list-style-type: none"> • Research Quality/Strength • Technology Quality/Strength • Company Quality/Strength • Leading Edge
FEASIBILITY	<ul style="list-style-type: none"> • The expertise and capability of the project individual/team to carry out and successfully achieve the project within the milestone plan. 	<ul style="list-style-type: none"> • Scientific Feasibility • Technical Feasibility • Business Feasibility 	<ul style="list-style-type: none"> • Project Team/Management/Individual Experience • Work Plan, Budget, Time • Leveraged Dollars • Partners/Collaborators (e.g. NRCAN) • Plan Risks and Mitigation Strategy • Execution
INNOVATION	<ul style="list-style-type: none"> • The ability of the project to advance the implementation of policies, practices, processes, products or services through (non-) commercialization. 	<ul style="list-style-type: none"> • Risk/Reward • Market Potential • Scalability 	<ul style="list-style-type: none"> • Market Penetration Potential • Commercialization Pathway and Knowledge Transfer • Synergy between policy, technology and market • Social innovation
OUTCOMES/ IMPACT	<ul style="list-style-type: none"> • The likelihood of the project resulting in progressive and measurable change on the program outcome(s). 	<ul style="list-style-type: none"> • Potential for Economic/ Health/ Social/ Environmental Impact • Return on Investment • Sustainability 	<ul style="list-style-type: none"> • *GHG Emission Reduction Potential • *Economic Diversification (CT Job Growth Potential/ Export Potential) • Other Environmental/Health/Social Benefits • Public good <p style="text-align: right;">*Primary and Secondary CCITF Outcomes</p>

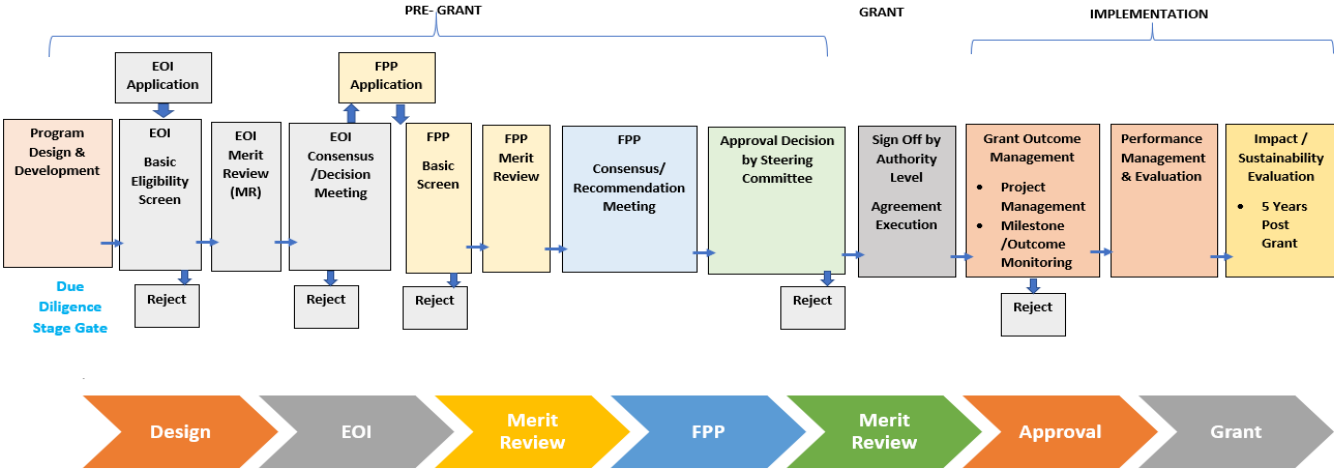
INTEGRATING IMPACT THROUGH ROADMAPS & FUNDING LIFECYCLE



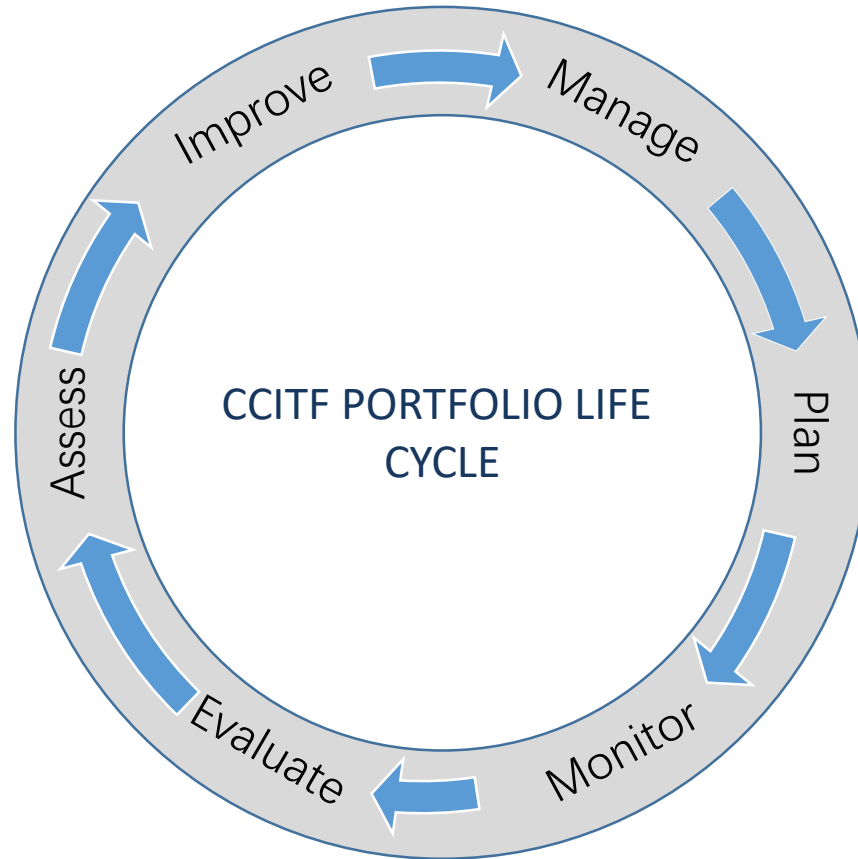
Mapped all Organizational Programs Across the R&I Client Journey

CCITF PROCESS MAP – INTEGRATED GRANT/PERFORMANCE MANAGEMENT

Impact management tools and process integrated along the funding lifecycle



CONNECTING THE DOTS: IMPACT PLANNING, IMPLEMENTATION, ASSESSMENT AND IMPROVEMENT ACROSS CCITF



Assessment (Monitoring & Evaluation) involved the systematic collection of information to improve program decision making and enhance organizational learning with the aim that programs meet stakeholder needs and lead to improvements in Environmental, Social and Economic Impact

ASSESS

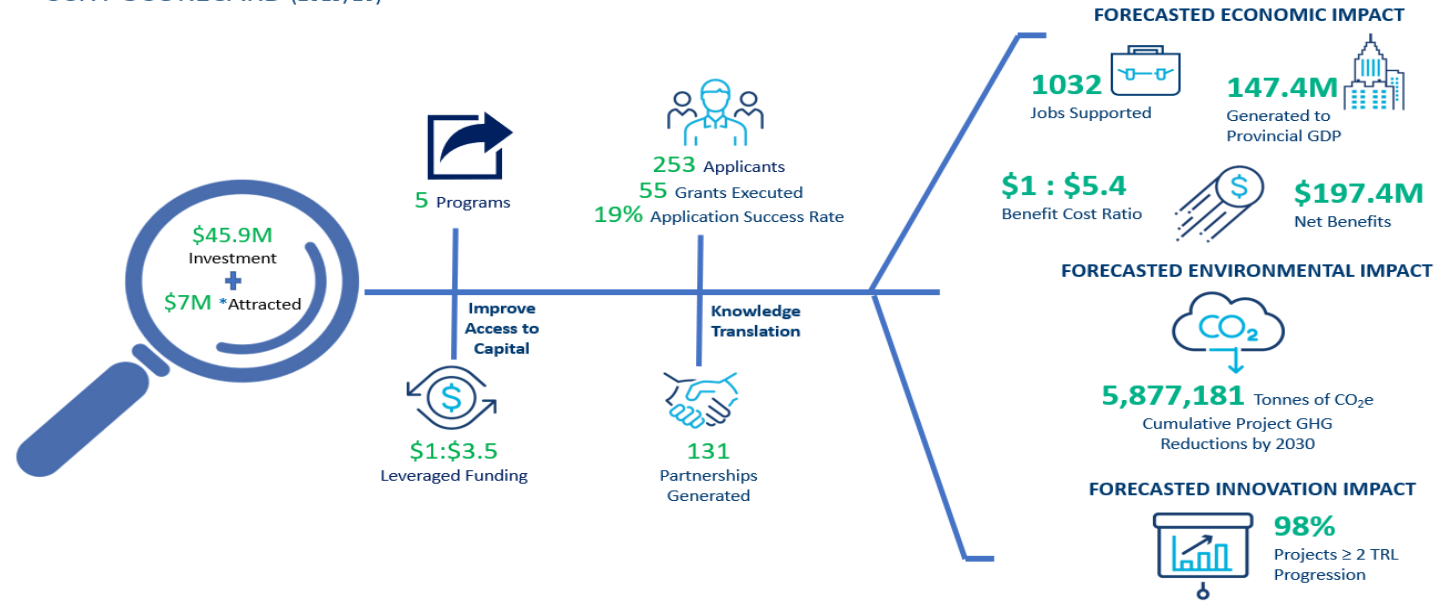


COMMUNICATE

HARMONIZED MEASURING, REPORTING AND COMMUNICATING IMPACT

CCITF SCORECARD (2019/20)

Scorecard



Impact Stories

Program/Project Profiles

Impact Exemplar



Capturing CO₂



CCITF Program: Clean Technology Development (\$1.8M investment)
Project Title: Integrated CO₂ Emission Capture & Utilization in Advanced Nanoparticle Production at Calgary Natural Gas Plant
Project Lead: Carbon Upcycling Technologies Inc.
Sector: Low Carbon Electricity

Carbon Upcycling Technologies (CUT) is the only Alberta company in the global Carbon X-Prize competition. CUT is advancing the direct CO₂ capture and utilization (CarbonTech) project at the Alberta Carbon Conversion Technology Center (ACCTC) in Calgary to capture CO₂ emissions directly from an active natural gas power plant. In this project, CUT is designing, constructing, commissioning, and commercializing the directly captured CO₂ emissions into end-used nanoparticles for use as additives in the concrete, polymers, and battery industries. The technology contributes to GHG emission reductions through CO₂ capture and sequestration.



APPLICATION

Key Messages

- Systems and holistic approach – embedding impact across the lifecycle (PIMS)
- Having an intentional plan aligned to mission and strategy for implementation
- Importance of Engagement, Context, and Culture for Action (Mindset, Teamset, Toolset, Impactset)

Co-Design Co-Implement Co-Manage

Future Plans – PIMS integrated into next phase of CCITF (TIER). Applying PIMS approach to Different Strategies such as Artificial Intelligence, Entrepreneurship, Digital and Strategic Patient Oriented Strategy.



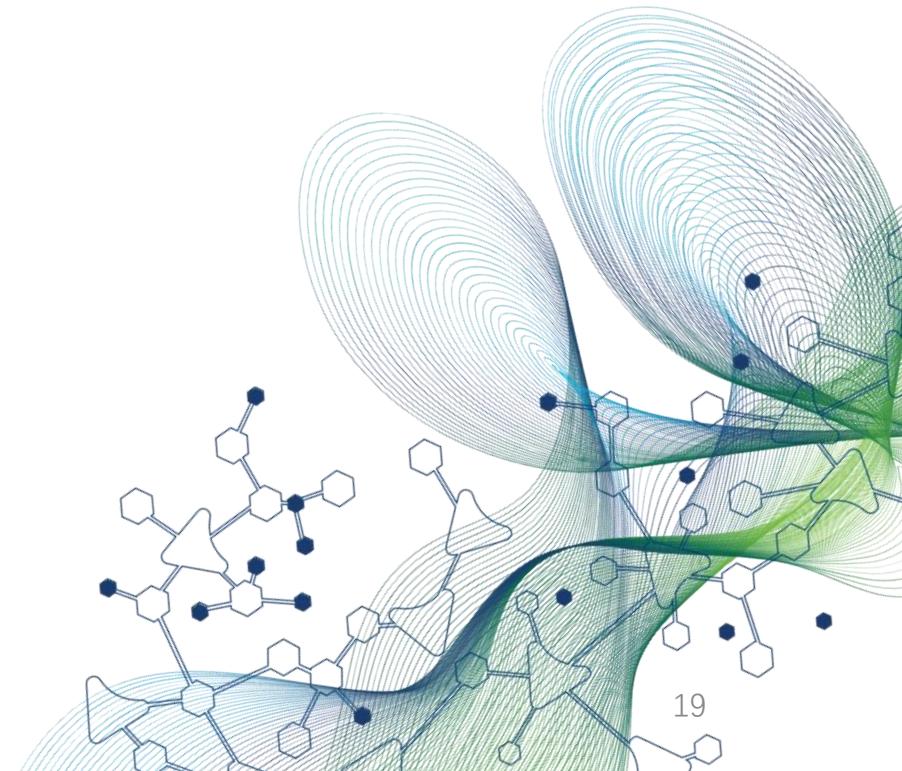
QUESTIONS



Next

Dr. David Budtz Pedersen

Illustrative Case Example: Impact lifecycle approach as exemplified by the 'Algorithm, Data and Democracy' (ADD) programme established by the Velux Foundations in Denmark





INSTITUT FÜR HÖHERE STUDIEN
INSTITUTE FOR ADVANCED STUDIES
Vienna

Impact Lifecycle Management: Connecting impact planning, implementation, assessment and improvement

Discussion

Thomas König
Vienna, Austria

Typology of impact

	INTENDED	UNINTENDED
EXPECTED	Straight runs	Collateral
UNEXPECTED	Long shots	Accidentals

TABLE 1 - Types of impact

From: Reale, Emanuela, Maria Nedeva, Duncan A. Thomas, and Emilia Primeri. "Evaluation through Impact: A Different Viewpoint." *Journal for Research Technology Policy Evaluation*, no. 39 (2014): 36–41.

Developing impact

Starting point:

- Different disciplines (economics, sociology, political science)
- Different ambitions (academic excellence vs. applied research)
- Need to come up with a coherent framework for assessing “impact” at various levels

Ambition:

Holistic, strategic, pragmatic concept

Process and results

- “Task Force” representing all factions within IHS
- 2 years of discussion, negotiation, “selling”
- General document laying out the general ambition
- Mechanism for assessing impact (within the annual performance agreement w/ research groups)
- 3 Dimensions: academic, public, policy-relevant
- High compliance within institute
- Coherent representation to outside / stakeholders

Leading questions

- Why is impact seen as important (in my context)?
(attempt to discern the factors)
- What kind of impact do I see as positive (and what would be negative impact)?
(typology of impact – “straight runs” vs. “collateral”, “accidentals”)
- What is the timeframe to assess impact?
 - (first step to operationalization)

Guiding principles for stimulating impact

- End to end lifecycle approach
- Holistic design, implementation and evaluation
- Planning for intended outcomes and impact upstream
- Integration of teams, disciplines, stakeholders etc.
- Culture change and reward structures