



**Partners in  
Project Green**

A Program of Toronto and Region Conservation Authority

# ELC & SME Consortium Climate Positive Energy

July 26th, 2022

We respectfully acknowledge that we are situated on the Traditional Territories and Treaty Lands, in particular those of the Mississaugas of the Credit First Nation, as well as the Anishinaabe of the Williams Treaty First Nations, the Huron Wendat, the Haudenosaunee, and the Metis Nation.

As stewards of land and water resources within the Greater Toronto Region, Toronto and Region Conservation Authority appreciates and respects the history and diversity of the land and is grateful to have the opportunity to work and meet on this territory.



# Additional Resources

- [yrnature.ca/acknowledging\\_land](http://yrnature.ca/acknowledging_land)
- [edgeofthebush.ca](http://edgeofthebush.ca)
- [native-land.ca](http://native-land.ca)
- Text 1-855-917-5263 with your City and Province to learn whose traditional territory you're on  
(standard text messaging rates may apply)



# Agenda

Time	Item	Speakers
1:00 – 1:10 PM	Updates, Reminders, & Intro	Matt Brunette Partners in Project Green
1:10 – 1:25 PM	Overview of Climate Positive Energy & Decarbonization at U of T	Shatha Qaqish-Clavering & Michael Fagan Climate Positive Energy, UoT
1:25 – 2:00 PM	Workshop & Discussion	Shatha Qaqish-Clavering & Michael Fagan Climate Positive Energy, UoT





# Introduction

# Welcome New ELC Members!

## Sheridan

**Evan Green**

Manager, Engineering for  
Sustainable Development



**Mark O'Connor**

Director Risk Management

**Alex Smyth**

Risk Manager



# Upcoming ELC Sessions

Date	Topic
August 11th	<b>RESCO-Flynn (in-person)</b> <ul style="list-style-type: none"><li>• Breakfast</li><li>• Tour</li><li>• Presentations &amp; member roundtable</li></ul>
September 14th	<b>ZooShare Biogas (in-person)</b> <ul style="list-style-type: none"><li>• Tour</li><li>• Presentations &amp; discussion</li><li>• Light lunch</li></ul>
October TBD	<b>Climate Positive Energy Pt 2 (in-person)</b>
November TBD	<i>Member Roundtable (Virtual)</i>



\*\*Please contact Matt Brunette if you are interested in hosting an ELC Site Visits this year or next year



# Updates and Reminders

- ELC Member Check-In Calls
  - Project updates, interests & feedback
- Request for Case Studies – [Case Study Template](#)
- Submit your story! – [PPG Member Feature Story](#)
- GreenBiz Business Survey
  - <https://partnersinprojectgreen.com/greenbiz-caledon-2022-mid-summer-survey-for-businesses/>
- Other member updates & news





# Today's Speakers



## **Shatha Qaqish-Clavering, Climate Positive Energy, U of T**

Shatha.Qaqish@utoronto.ca | 647-270-9926

Shatha brings strategic leadership with over a decade of experience working in the clean technology, sustainability, and innovation eco-systems. She has experience managing large government grant programs to drive innovative climate change related technologies to reduce greenhouse gas emissions. She has led multidisciplinary teams and executed many commercialization plans and technology development strategies.



## **Michael Fagan, Climate Positive Energy, U of T**

Michael.Fagan@utoronto.ca | 416-527-1429

Michael brings his expertise in innovation, strategy and change management to his work with those striving to achieve a more sustainable future. Over a diverse career, he has been an industrial R&D chemical engineer, undertaken corporate strategy and change management initiatives, managed collaborative research and innovation investment, and supported the demonstration and adoption of sustainable technologies and solutions.





# Climate Positive Energy

# Climate Positive Energy Workshop

## *Partners in Project Green*

July 2022



UNIVERSITY OF  
TORONTO

CLIMATE  
POSITIVE  
ENERGY



Shatha Qaqish-Clavering,  
Director, Strategy and Operations  
[cpe.utoronto.ca](http://cpe.utoronto.ca)

# Climate Positive Energy

## *A Key Strategic Initiative at U of T*

- The Climate Positive Energy Initiative is the University of Toronto's centre for interdisciplinary clean energy research.
- Our goal is the development of social, scientific, technical, economic, and policy solutions to transform our energy systems, ensure energy access and production is equitable, and help Canada become a global clean-energy model.

# Climate Positive Energy

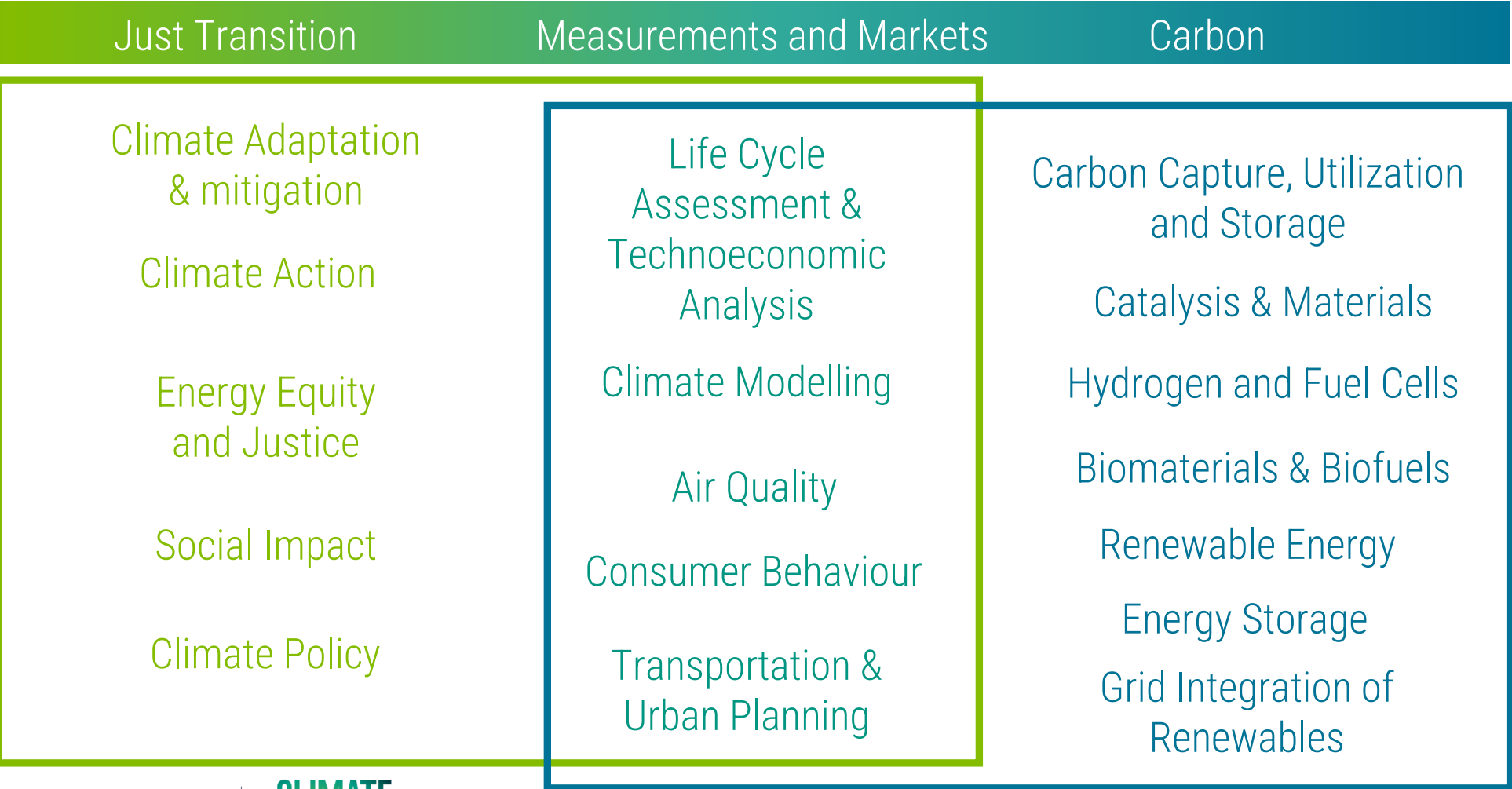
## *A Key Strategic Initiative at U of T*

- CPE has over 100 faculty members from 29 departments across 3 campuses
- Beyond the expected engineering and science expertise, CPE offers end to end solutions to climate related issues including policy, economic feasibility, consumer behaviour, etc..
- CPE is a single point of industry engagement to the appropriate climate and energy resources within U of T to streamline industry – academic collaborations

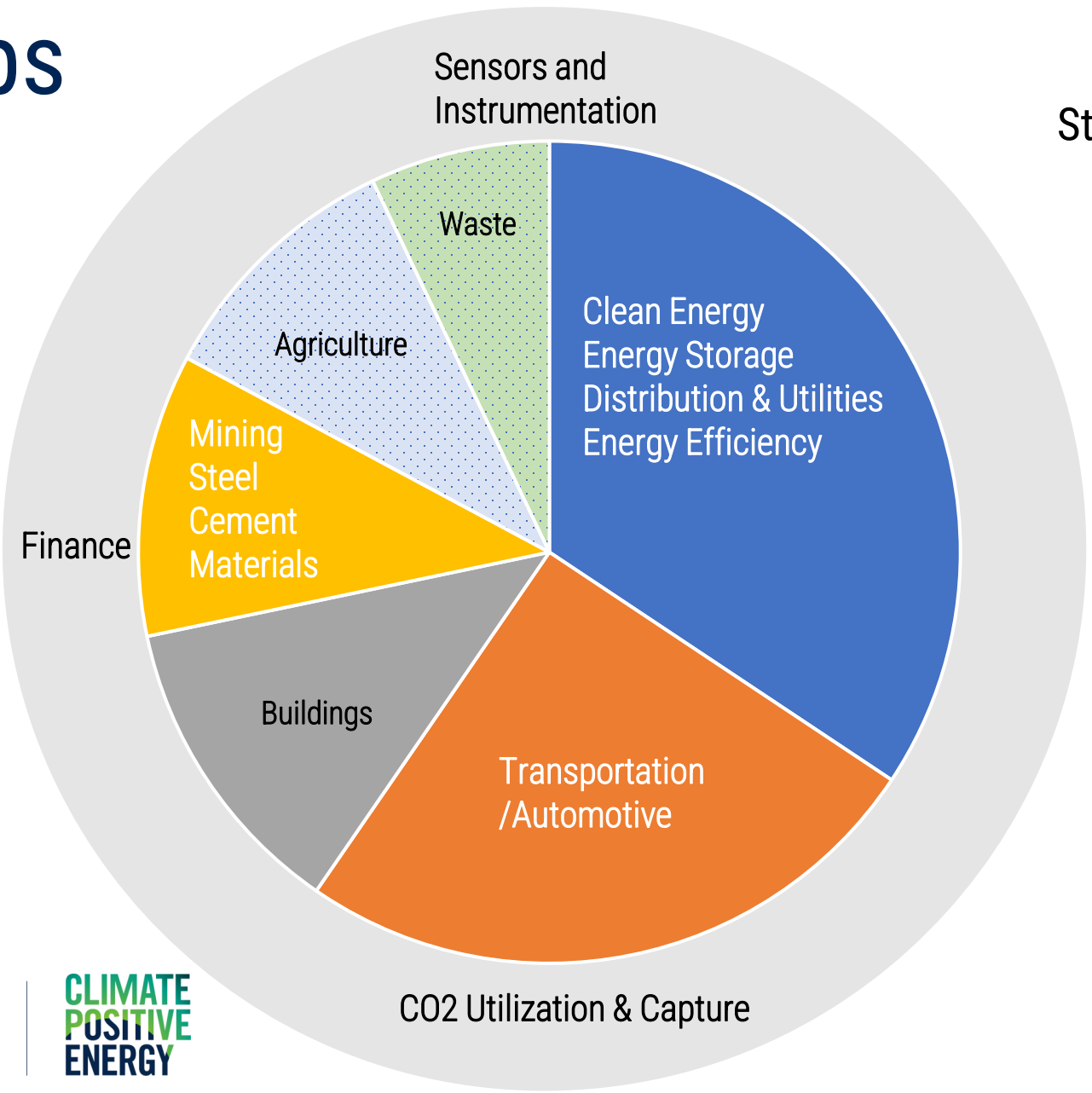
# U of T Leadership in Climate Solutions

## ENVISION

## EMPOWER



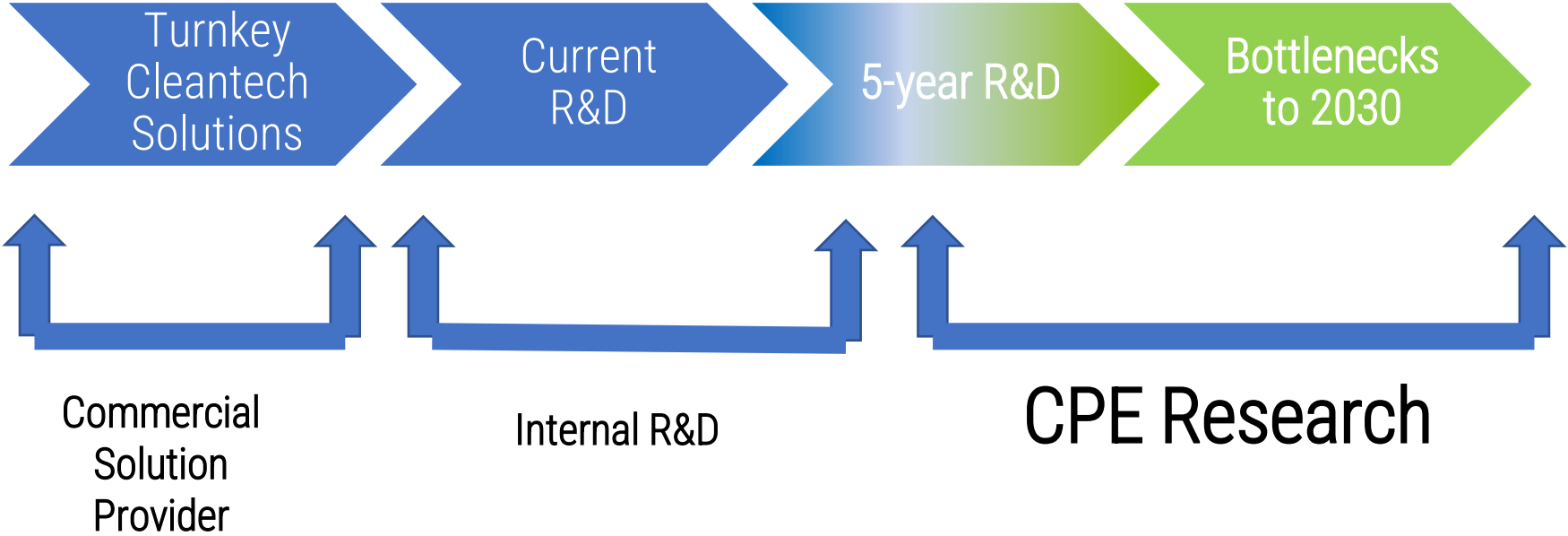
# Industry Partnerships



Strategy: Follow the carbon

Emissions by Sector in Canada  
[Environment Canada 2021]

# Climate Change and the Progression of Research





# Examples of Research 5-10 year Cross Sector

Renewable fuels for transportation

Carbon sinks

Electrification

Circular economy

Value chain and climate risk management and mitigation

Grid modernization and renewable energy integration

New skills for the decarbonized economy

# Examples of Research Outside Engineering

Consumer behaviour

Carbon pricing

ESG and impact of governance on company's strategy

Green bonds

Climate modelling and the impact on tangible and intangible assets

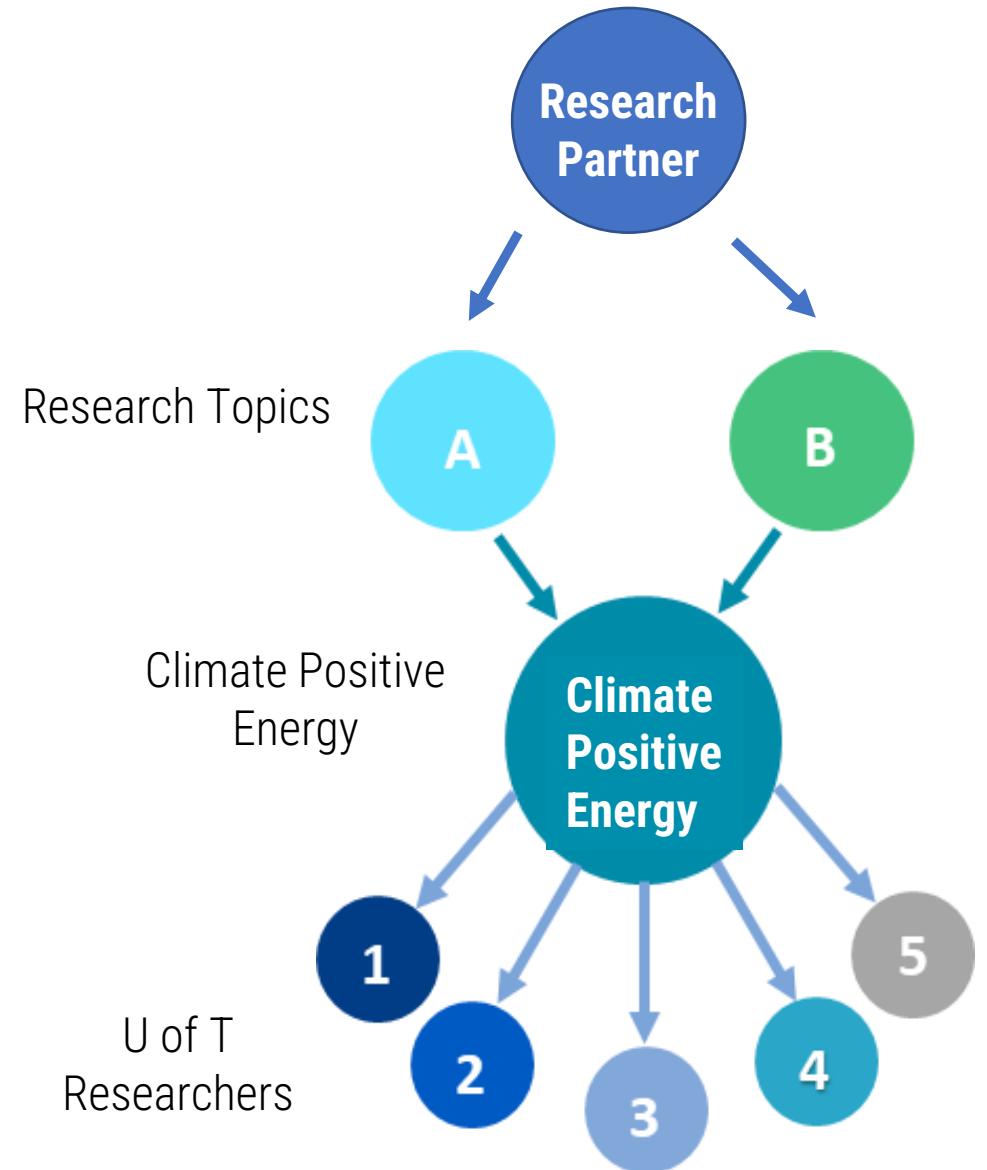
Community work: How do local communities think about climate goals?

New skills for the decarbonized economy

# How Can It Work? Model 1

## 1:1 Partner Research interests - Call for Proposals Model

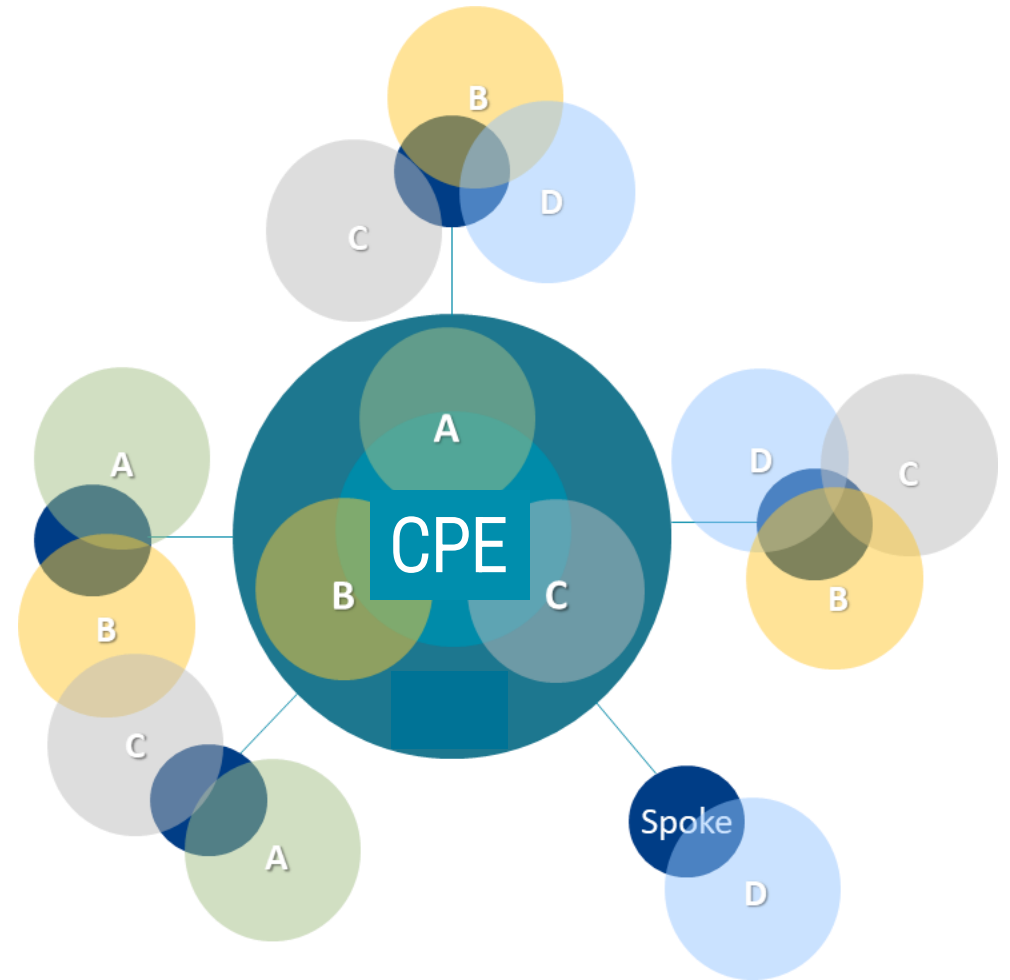
- IP negotiated as part of the framework agreement
- Research directed by the research partner that aligns with its core strategic needs
- CPE to run call for proposals competition
- Research partner selects the winning proposals/researcher teams



# How Can It Work? Model 2

## Collaboration Hub and Spoke Model

- Multiple industry partners.
- The research theme or “hub” is centred around early-stage or pre-competitive research. It could be the bottle necks of achieving 2050 net zero targets. These are 5 to 10-year horizon projects.
- The “spokes” are directed research projects with one or more of the partners. They will be treated confidentially and separately from the hub research.
- One collaboration agreement with royalty free access to hub research. Spoke research is treated on case by case basis with separate IP agreement.



# Understanding Your Research Challenges

- Current
- Long term



# Partners in Project Green

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# Thank you.