



# INDUSTRIAL TRANSFORMATION CHALLENGE

# Speaker introductions

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# Housekeeping

- Microphones are muted
- If you called by telephone, select “telephone” and enter your audio PIN
- Type questions into the “Questions” section of the control panel
- We answer as many questions as possible after the presentation
- If you have technical difficulty during the webinar (interface or audio) contact Kevin at [kduncan@eralberta.ca](mailto:kduncan@eralberta.ca)
- Webinar is being recorded and will be posted on our website

# Agenda

- About Emissions Reduction Alberta (ERA)
- Industrial Transformation Challenge Overview
  - Scope and eligibility
  - Submission and evaluation process
  - Timelines
- Advice for preparing a successful submission
- Q&A

# About ERA

## MANDATE

Reduce GHG emissions and grow Alberta's economy by accelerating the development and adoption of innovative technology solutions.

## VISION

Alberta has competitive industries that deliver sustainable environmental outcomes, attract investment, and are building a diversified, lower carbon economy.

## STRATEGIC PRIORITIES






SUPPORTED BY:



# Investment impact

COMMITTED OVER  
**\$821** MILLION  
TO

**231** TECHNOLOGY  
ACCELERATION  
PROJECTS

VALUED AT   
**\$6.5 BILLION**  
 

 **7.1**  LEVERAGED  
FUNDING  
FROM PUBLIC  
AND PRIVATE  
INVESTORS

SUPPORTED BY:



  
**\$4.9**  
BILLION

**GDP  
IMPACT  
AND  
33,400**  
PERSON-YEAR-JOBS  
IN ALBERTA BY 2025

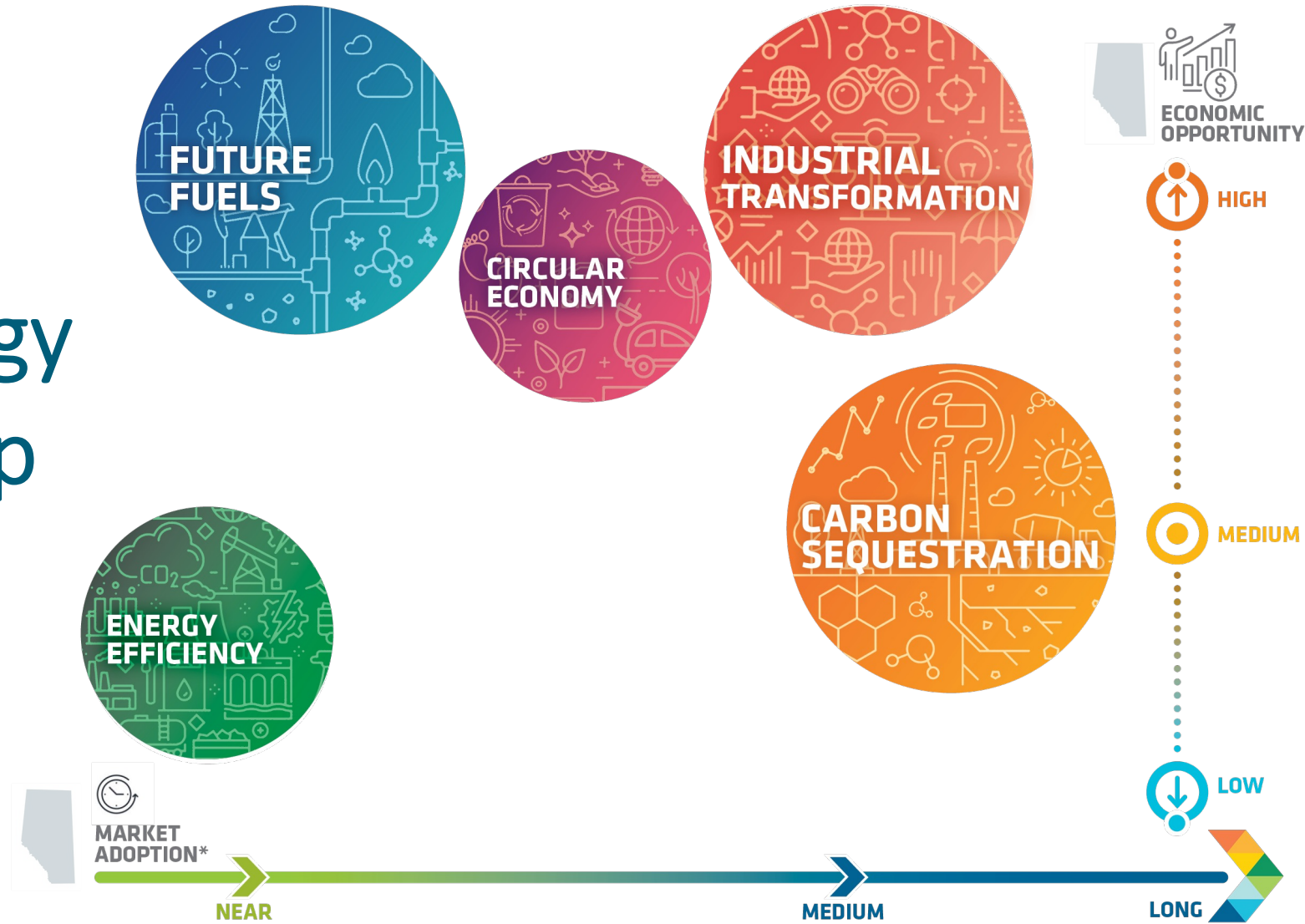


**\$6.6 BILLION**  
**GDP IMPACT AND  
45,800**  
PERSON-YEAR-JOBS  
IN CANADA BY 2025

ANTICIPATED TO DELIVER



# Technology Roadmap

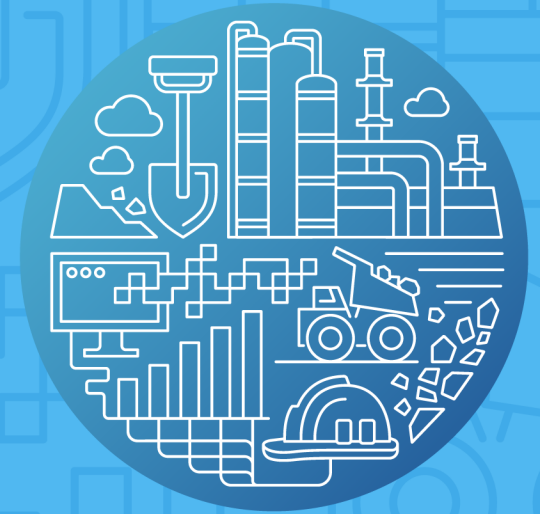




# CARBON CAPTURE KICKSTART



# CIRCULAR ECONOMY CHALLENGE



# SHOVEL-READY CHALLENGE



# Trusted Partners



SUSTAINABLE DEVELOPMENT  
TECHNOLOGY CANADA  
TECHNOLOGIES DU DEVELOPPEMENT  
DURABLE CANADA



Natural Resources Canada  
Ressources naturelles Canada



UNIVERSITY  
OF ALBERTA

*(through the Canada First Research Excellence Fund)*



UNIVERSITY OF  
CALGARY

*(through the Canada First Research Excellence Fund)*



NGIF

NATURAL GAS INNOVATION FUND  
GAZ NATUREL FINANCEMENT INNOVATION



PRIZE®

CIB  BIC

*NEW PARTNER*



@OCI  
Where Next Happens

 **evok**  
INNOVATIONS



**Prairies**Can

*NEW PARTNER*

**bdc** 

 **EDC**

EMISSIONS  
REDUCTION  
ALBERTA





# INDUSTRIAL TRANSFORMATION CHALLENGE

# Call objectives

- ERA's Industrial Transformation TRM focus area
- Dual outcomes: GHG reductions, economic benefits
- Disruptive innovation for Alberta's industrial sector
- Support pathway to net zero
- Beyond first-mile solutions

# Project structure, term, and initiation

- ERA funds “Projects” with clear objectives, milestones, timelines, deliverables and a budget
- Maximum length is three years, plus one year of operational time where applicable
- Projects must commence within 120 days of approval\* (potential for delayed start date of up to 12 months)
- Technologies must be demonstrated or deployed in Alberta

# Funding overview

- Up to \$50 million available
- Maximum \$10 million per project\*
- Minimum of \$250,000
- Funding must be matched at least 1:1
- Leverage with funding partners where possible

See ***Eligible Expense and Cost Instructions*** for details regarding eligibility of costs

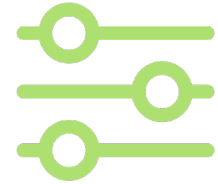
# Eligible applicants



**LARGE INDUSTRIAL  
EMITTERS**



**POST SECONDARY  
INSTITUTIONS**



**RESEARCH  
ORGANIZATIONS**



**SMALL AND MEDIUM  
ENTERPRISES**



**MUNICIPALITIES**

# Technology examples

- Electric boilers, industrial heat pumps, and other means of electrifying industrial heat
- Onsite industrial clean heat production
- Thermal energy storage
- Hydrogen end uses in industry
- Process electrification
- Novel hydrocarbon extraction
- New processes, chemistries, etc. for cement, fertilizer, plastics, pulp and paper, oil and gas upgrading/refining, and other industries

# Technology examples

- Transformative agricultural technologies and practices including electrification, advanced fertilizers, and mitigation of agricultural methane emissions
- Novel alternative proteins
- Step-changes in fugitive methane management
- Solutions for high global warming potential gasses including climate-friendly refrigerants and fluorinated-gas reduction/substitution
- New industries and products, such as:
  - Hydrocarbons beyond combustion
  - Energy materials (lithium, vanadium, zircon, etc.)
  - Advanced manufacturing



# Technology stage of development

- **Field Test / Pilot:**
  - Technology or innovation is ready to be field-tested in an operational environment.
  - Scale-up of prototypes to representative pilot scale and subsequent in-field testing of pilot units.
- **Commercial Demonstration:**
  - Technology or innovation is approaching the final commercial product and representative systems have been built.
  - Demonstration of near- or fully-commercial scale systems in an operational environment.
- **First-of-Kind Commercial Implementation:**
  - Technology is ready for first-of-kind commercial deployment.
  - Design, construction, and operation of the technology in its final commercial form, with the intent to operate the technology for its full commercial life.

# 1 EXPRESSION OF INTEREST (EOI) STAGE



# 2 FULL PROJECT PROPOSAL (FPP) STAGE



# 3 PROJECT EXECUTION STAGE



Submission  
and evaluation  
process

# Timelines

Action	By whom	Timing
Expression of Interest Submission Deadline	Applicants	January 19, 2023
Expression of Interest Shortlist Notification	ERA	Early March 2023
Full Project Proposal Submission Deadline	Applicants	Late April 2023
Full Project Proposal Oral Presentation	Applicants	May 2023
Funding Decision Notification	ERA	June 2023

# Outcomes reporting and knowledge sharing



# Continuous process improvement

- Earlier start date for eligible cost sharing
- Shorter call timelines
- GHG quantification at FPP stage
- Simplified FPP budget template
- Further improvements to come

# Preparing a successful submission

- Start now: <http://eralberta.ca/apply-for-funding/>
- Register on ERIMS: <https://erims.outcome-plus.com/>
- Read the guidelines documents
  - Call for Expressions of Interest
  - Eligible Expense and Cost Instructions
- Review the evaluation criteria:
  - Technology opportunity
  - GHG and cost benefits
  - Adoption potential
  - Project implementation plan

# Preparing a successful submission

- Use clear language and address each point in template
- Provide complete responses
- Don't wait until the last day to submit
- Increase your visibility through our trusted partners
- Content reminders:
  - Our mandate centers around GHG reductions
  - Identify your project site
  - Broader benefits

Questions?



# Wrap up and next steps

- Unanswered questions?
  1. Review the guidelines and supporting materials online, [eralberta.ca](http://eralberta.ca)
  2. Email remaining questions to [applications@eralberta.ca](mailto:applications@eralberta.ca)
- Begin your submission today

Thank you!