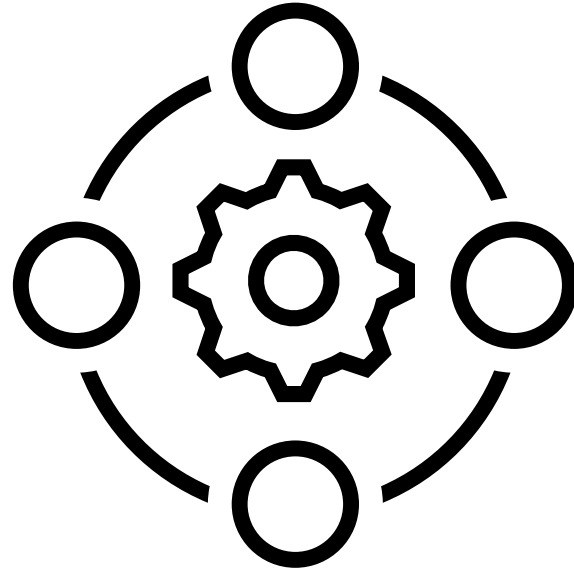


# Alberta's Industrial Heartland Association

Mark Plamondon, Executive Director

April 21, 2023

**Alberta's Industrial Heartland Association (AIHA)** is a municipal government supported economic development association. AIHA's mandate is to attract heavy industrial investment into Alberta's Industrial Heartland.



AIHA is a 24-year partnership of **five** municipalities and **three** associate members. AIHA is non-profit and does not seek any financial reward from project sponsors.

CITY OF  
FORT SASKATCHEWAN  
FORTSASK.CA

Lamont County

STRATHCONA  
COUNTY

Edmonton

Sturgeon  
COUNTY

Gibbons  
ROOTED IN FAMILY

Redwater  
TOWN OF  
A NATURAL HOME

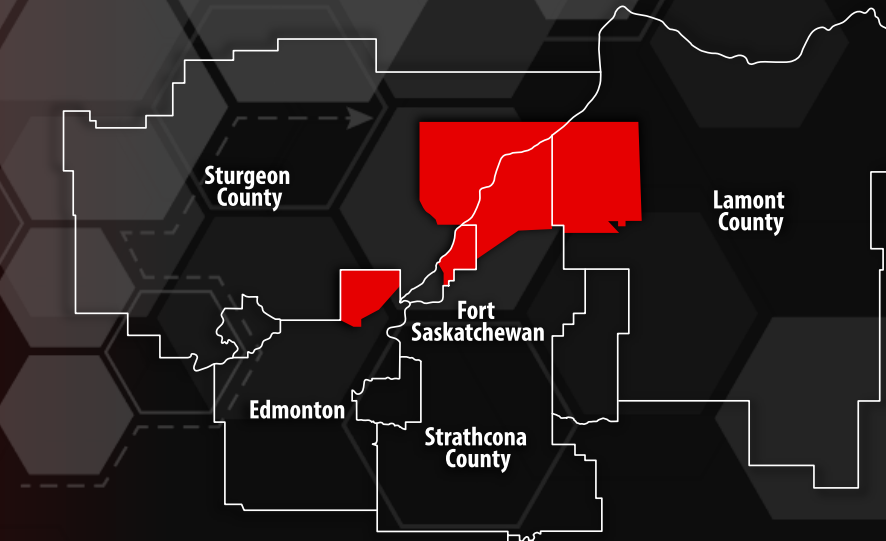
the town of  
Bruderheim  
Alberta

M U N I C I P A L I T I E S

A S S O C I A T E  
M E M B E R S

# ALBERTA'S INDUSTRIAL HEARTLAND

Alberta's Industrial Heartland is Canada's largest hydrocarbon processing region, consisting of over \$45 billion in industrial investments. AIH is home to 40+ companies in a variety of sectors, including producing and processing oil, gas, and petrochemicals, as well as advanced manufacturing.



## CHEMICALS & FUELS

- Ethylene
- Polyethylene
- Polymer-grade propylene
- Polypropylene
- MEG/EO/EG
- Iso-octane
- Styrene monomer
- Urea
- Ammonium sulphate
- Ammonia
- Hydrogen
- Refined fuels
- Bitumen upgrading
- Benzene
- Aromatics
- Pet-Coke

## MIDSTREAM & UTILITIES

- NGL fractionation
- Salt cavern storage
- Oil, natural gas, and NGL pipelines
- Water and industrial gas systems
- Two operating world-scale CCUS systems

## DIVERSIFIED PRODUCTS

- High-purity nickel & cobalt
- Nickel based composite powders
- Cobalt powders
- Hydrogen peroxide
- Prilled sulphur
- Third party rail storage
- Renewable power

# WORLD CLASS PROJECT PARTNERS EXISTING IN AIH



*Nutrien*



*MEGlobal*



**oerlikon**  
metco



**AIR**  
**PRODUCTS**

*cenovus*  
ENERGY



**AUX SABLE**



**ATCO**



**sherritt**



**Petrogas**  
Energy Corp.





## INTERNAL DEPARTMENTS



### BUSINESS DEVELOPMENT

Works with companies to understand if AIH makes sense for their next investment



### EXTERNAL RELATIONS

Advocates for project sponsors at all levels of government



### COMMUNICATIONS AND COMMUNITY OUTREACH

Connects the community and stakeholders to activity in region

## STRATEGIC PILLARS

### Promote Project Opportunities in AIH

Attendance at notable global industry events, such as Gas Tech and World Methanol Conference

Marketing and advertising campaigns focusing on competitive advantages of the region

### Improve the Business Case for AIH

Robust study and intelligence building programs

Policy and engagement opportunities, such as the Designated Industrial Zone

### Advance AIH Social License and Community Support

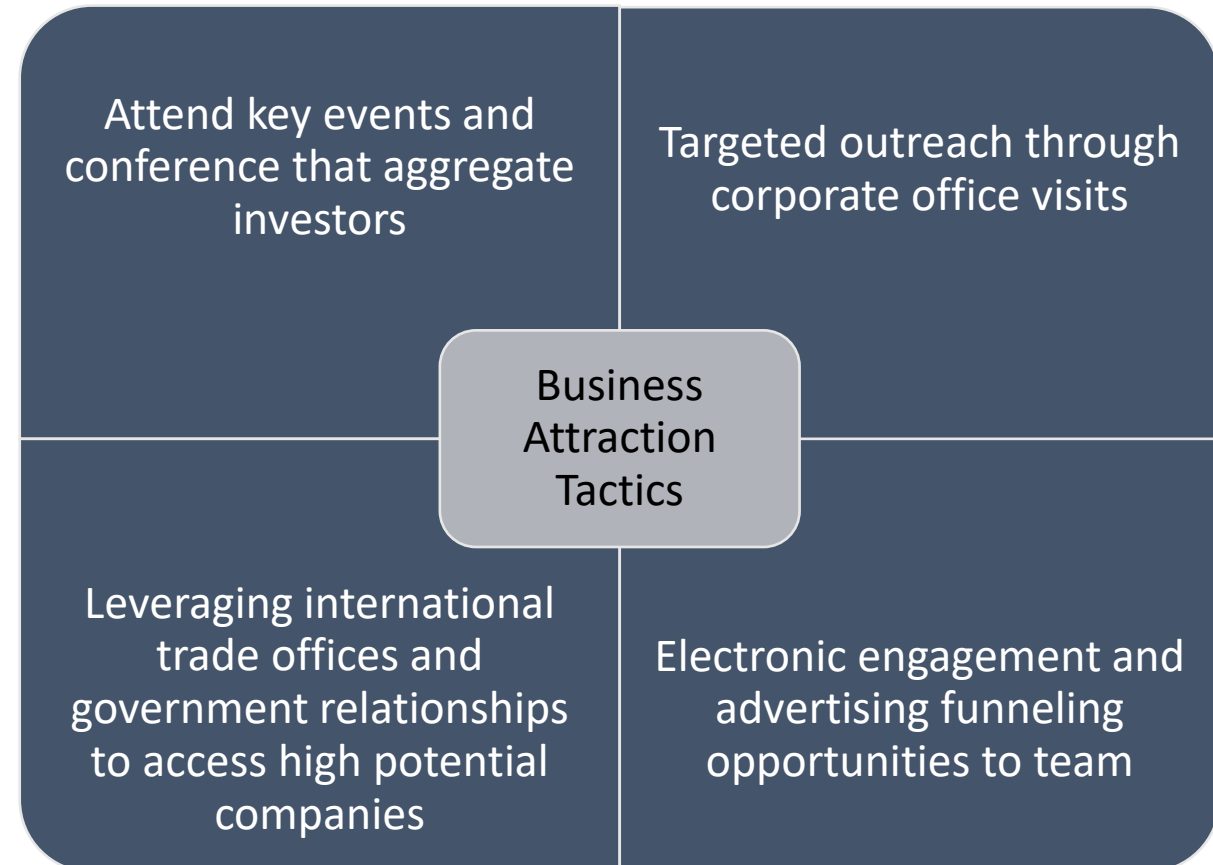
Supporting community engagement organizations such as Life in the Heartland

Indigenous engagement and Reconciliation Action Plan

# PILLAR 1: PROMOTE PROJECT OPPORTUNITIES IN AIH

## Primary opportunities sought:

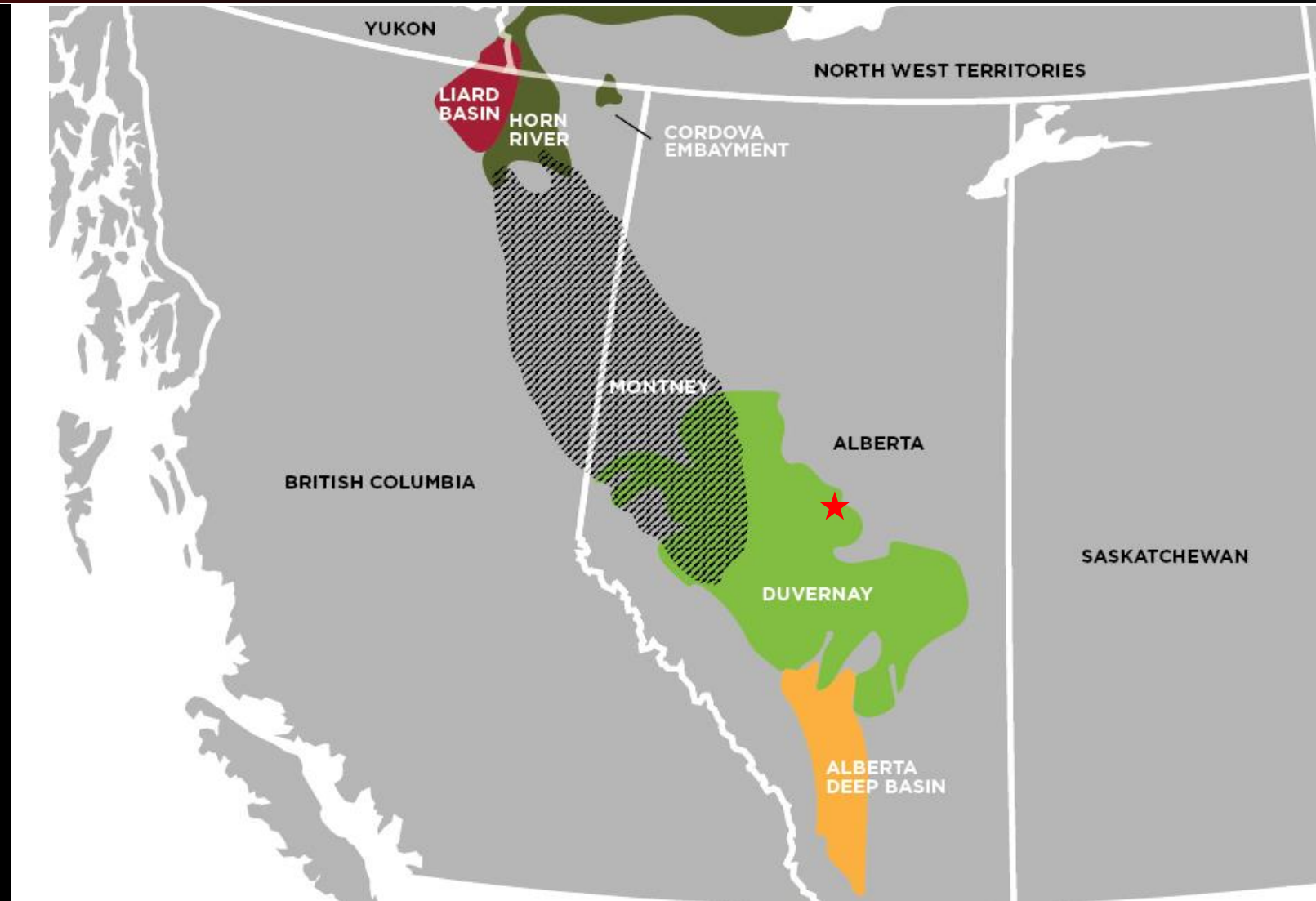
- Chemicals/Petrochemicals:
  - Methanol
  - Fertilizer (i.e. ammonia)
  - Ethylene and derivatives
  - Propylene and derivatives
  - Animal nutrition
  - Specialty chemical products and plastics
  - Midstream supporting infrastructure (fractionation, storage, short rail)
- Diversification and Sustainability:
  - Renewable fuels (SAF, Biodiesel)
  - Battery materials
  - Municipal waste to energy
  - Small modular nuclear reactors
  - Low-carbon power
  - Carbon capture, sequestration, and utilization (CCUS)
  - Hydrogen



# PILLAR 1: PROMOTE PROJECT OPPORTUNITIES IN AIH

AIH is the HEART of a World Scale Energy Hub and is at the center of the second largest oil and gas reserve in the world.

- Over 1,100 TCF of natural gas reserves, representing over 200 years of production at current demand
- 18 bcf/d of gas produced in the WCSB
- Nearly 4.0 million barrels of oil produced and processed in Alberta
- 471,000 barrels of refining capacity in the Heartland





# PILLAR 1: PROMOTE PROJECT OPPORTUNITIES IN AIH

Natural gas price benchmarks –January 2023 (\$/mmbtu)



Source: Global LNG Hub. Spimex = Domestic NG price in Russia, TTF = Spot LNG price in Netherlands, IGX = Spot domestic NG price in India, JKM = Spot LNG price in Japan/Korea, Adelaide = Domestic NG price in Australia.

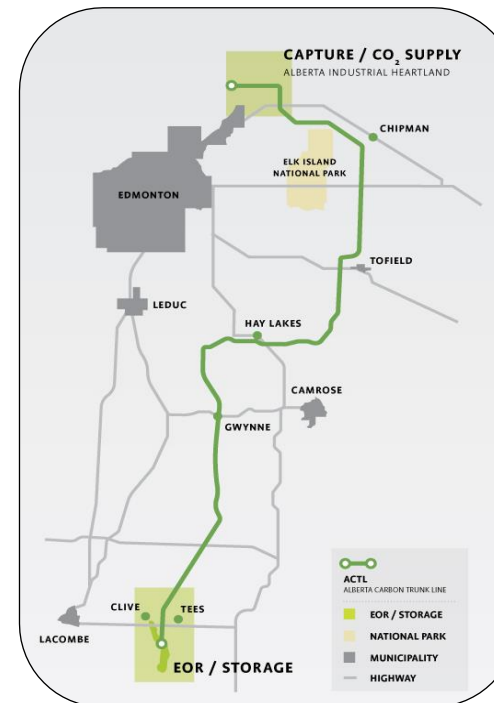
# PILLAR 1: PROMOTE PROJECT OPPORTUNITIES IN AIH

AIHA is home to ~10% of the large-scale carbon capture storage/utilization projects operating in the world



## Quest Carbon Capture and Storage

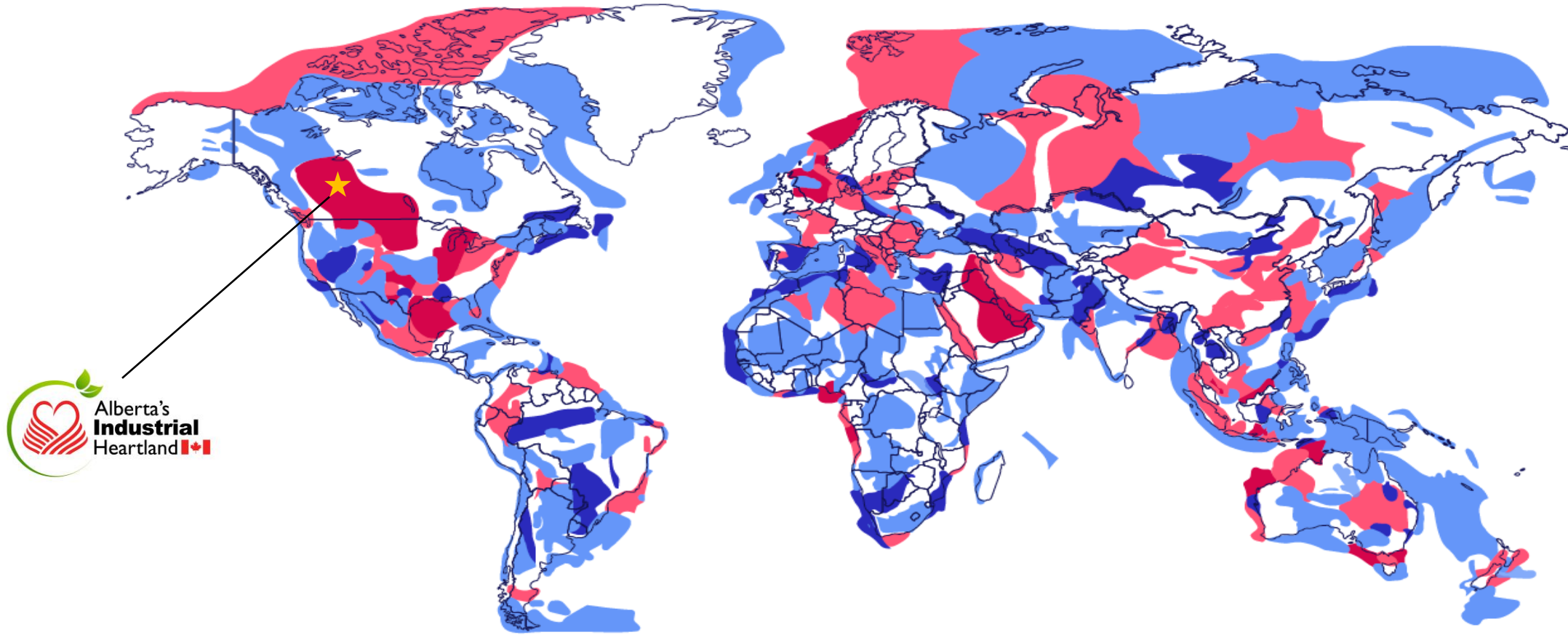
- A world-class capture project designed to capture and store over 1 million tonnes of CO<sub>2</sub> per year
- Quest began operations in 2015 and, to date, has captured and stored more than 4 million tonnes of CO<sub>2</sub>
- Quest is owned by the Athabasca Oil Sands Project (70% CNRL, 20% Chevron, 10% Shell) and operated by Shell Canada



## Alberta Carbon Trunkline

- Alberta's first large-scale carbon capture utilization and storage project
- Consists of a 240-kilometre pipeline collecting and transporting up to 14.6 million tonnes per year of CO<sub>2</sub> for enhanced oil recovery and storage
- Developed as a partnership between Wolf Carbon Solutions (Wolf), Enhance Energy, Nutrien, and NWR

# PILLAR 1: PROMOTE PROJECT OPPORTUNITIES IN AIH



■ HIGHLY SUITABLE ■ SUITABLE ■ POSSIBLE ■ UNLIKELY

Source: Global CCS Institute

## PILLAR 2: IMPROVE THE BUSINESS CASE FOR AIH

AIHA Staff meet frequently with provincial and federal officials to discuss AIH policy priorities, including:

- Carbon Sequestration infrastructure and development
- Hydrogen industry development and potential for export
- New infrastructure priorities and upgrades for AIH
- Enhancement of competitiveness, advocacy for incentive programs, such as APIP
- The Designated Industrial Zone





## Continuing support for **Life in the Heartland**:

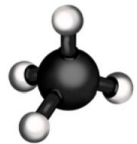
- Life in the Heartland is a collaborative initiative among AIHA, NCIA, FAP and NRCAER.
- LITH provides a coordinated approach to improve resident awareness of and access to information, resources, and contacts about topics related to existing operations and industrial development. This will be achieved through a variety of methods, including website, newsletters, dialogue at community events, and distribution of resources through partner organizations.



# REFERENCE MATERIALS

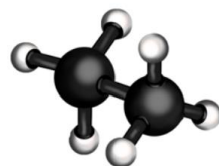
**MARK PLAMONDON**  
Executive Director, Alberta's Industrial  
Heartland Association  
+1-780-721-7204  
[mark@industrialheartland.com](mailto:mark@industrialheartland.com)

## Growth Opportunities



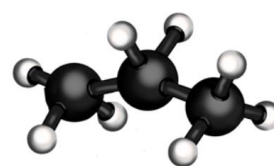
Methane

- Methanol
- Urea / Ammonia
- Hydrogen
- Liquid organic hydrogen carriers
- Animal nutrition



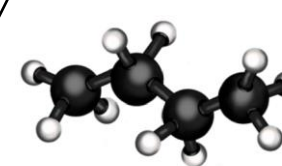
Ethane

- Ethylene
- Ethylene Derivatives (PE, PO, EDC, etc.)



Propane

- Propylene
- Propylene derivatives (PP, PO, IPA, SAP)
- Animal nutrition



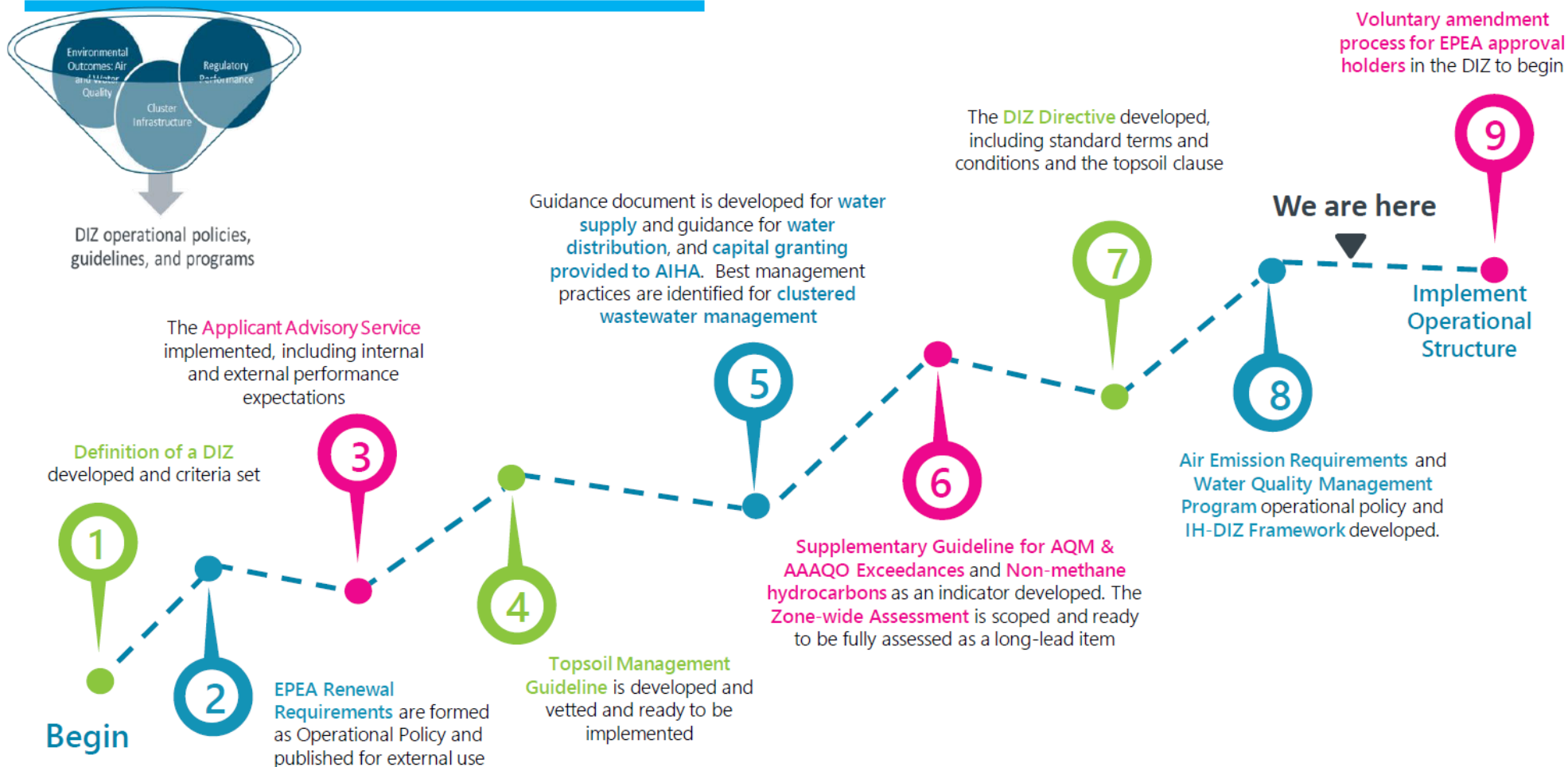
Butane

- Iso-octane
- Maleic anhydride
- C4 derivatives



- Specialty chemicals
- Bio-oil / Bio-refining
- Small modular reactors
- Lithium processing
- Waste to energy
- Renewable power
- Battery materials

## Designated Industrial Zone: Key Milestones



### Regulatory Streamlining:

- Reduced renewal EPEA requirements
- Developed Applicant Advisory Service
- DIZ Directive created

### Cluster Infrastructure:

- Improved water and soil management policies
- Master Drainage Plan developed

### Environmental Outcomes:

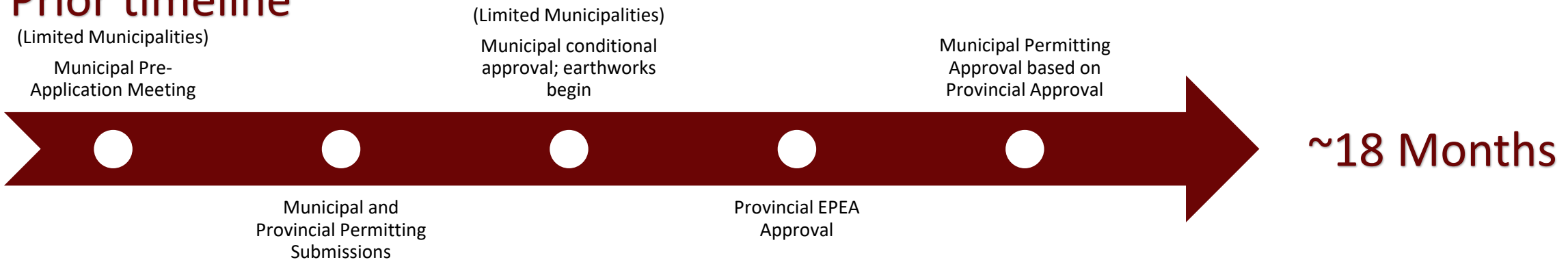
- Increased standards for air pollution abatement
- Developing load-based wastewater management approach

### Capital Investments:

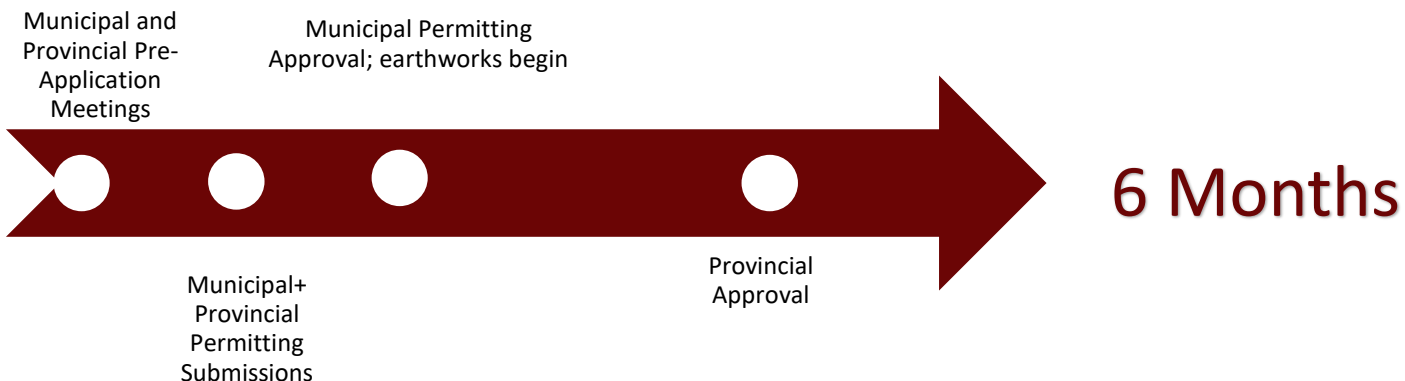
- Issued grant to AIHA for new water intake designs

# PILLAR 2: IMPROVE THE BUSINESS CASE FOR AIH

## Prior timeline



## New timeline



### Key factors for achievement:

- Document standards aligned between Municipalities and Province to reduce proponent workload
- Decoupled municipal approvals from provincial approval
- Adoption of pre-application meeting (Applicant Advisory Service) to reduce confusion of requirements and process
- Discussions beginning to nest federal approval timelines where required



# SUPPORT FROM ALL LEVELS OF GOVERNMENT



## Federal Government

- Strategic Innovation Fund (flexible supports for strategic projects)
- Scientific Research & Experimental Development Tax Credits (tax credits for R&D)
- Accelerated Capital Cost Allowance (accelerated depreciation for favourable tax treatment)
- CCUS Tax Credit (50% tax credits for carbon capture equipment and 37.5% tax credits for CO2 transportation, storage, and utilization)
- Clean hydrogen investment tax credit
- Pledge to develop a North American clean hydrogen market at the N.A. Leaders Summit in 2023



## Provincial Government

- Alberta Petrochemical Incentive Program (12% of eligible capital costs returned to projects through cash grants upon completion)
- Technology, Innovation and Emissions Reduction regulations
- Designated Industrial Zone



## Municipal Government

- Heartland Incentive Program (2 - 2.5% of project capital cost returned through property tax abatement and infrastructure supports)



# ALBERTA'S FIRST (AND ONLY) DESIGNATED INDUSTRIAL ZONE



Classification: Protected B

- Facilitate regulatory streamlining
  - Clarity in requirements for facilities
  - Provide investor certainty
  - Reduce approval timelines
- Improve environmental outcomes
  - Clear expectations for operators
  - Improved understanding of environmental conditions
  - Management of cumulative effects.
- Centralize infrastructure

The logo consists of the word "Alberta" in a stylized script font, followed by a small blue square.

Canada's two class 1 railroads, the Canadian National (CN) and the Canadian Pacific (CP), connect Heartland industries and markets. Alberta rail services offer seamless intermodal transport solutions through its network of professional partners. Two third party rail service providers at AIH can provide efficient and economical supply chain services to industries.



# PROXIMITY TO ASIAN MARKETS

