#### WHY THE ARIF?

A strong research and innovation system lays the foundation for remarkable discoveries, creates new jobs, and helps Alberta build a prosperous, growing society positioned for national and international success.

The Government of Alberta realizes that setting realistic, measureable targets is the first step to achievement. This Framework sets out a suite of aspirational **Innovation Targets**, intended to inspire collective action to develop transformational solutions that advance the lives of Albertans.

# Aspirational, yet feasible innovation targets in areas of highest need or opportunity will:

- ✓ stimulate bold ideas and actions from innovators, industry, and entrepreneurs;
- ✓ guide research investments to support new knowledge where it's needed; and
- ✓ support a robust pipeline of innovations from early stage to scale-up, to market-ready.

## WHAT IS NECESSARY FOR SUCCESS?

A successful research and innovation system requires the right elements and conditions to support and catalyze its findings and activities:







Innovation Environment

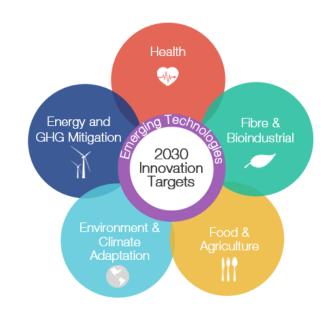


System Linkages

# **HOW WILL WE GET THERE?**

The Alberta Research and Innovation Framework (ARIF) Action Plan 2017 – 2020 outlines the Government of Alberta's tactical approach to advance the innovation targets and demonstrate results for Albertans.





For more information, contact Economic Development and Trade – 780-644-2253

2017



# Alberta Research and Innovation Framework 2017

# 2030 INNOVATION TARGETS

# **Emerging Technologies**

### Grow Alberta's Green Economy

Support the cleantech sector to increase industry sales revenue by 25%, thereby increasing Alberta's global market share by 20%



## Advanced Manufacturing & Materials

The value of Alberta's manufacturing sector will increase from \$18.8 billion to \$40 billion through the development of advanced materials, instrumentation, and repurposing jobs (2014 base)



#### Digital Economy

The information and communications technology (ICT) industry in Alberta generates more than \$20 billion in annual revenues, and the province is the coest in Canada for digital literacy and connectivity



# **Food & Agriculture**

#### Increase Sales

Sales from ingredient, food, and beverage product manufacturing increases from \$13.7 pillion to \$25 billion (2014 base)



#### Increase Productivity

Increase crop and livestock quality and productivity by 30%, while responsibly managing natural resources (2013 base)



# Strengthened Public Trust for Exappled Markets

Ensure agriculture, food and beverage production meets or exceeds public expectations and values by 10% by 2030 (2016 base)



# **Energy and GHG Mitigation**



#### Reduce GHG Emissions

Support Alberta's climate change goals by accelerating solutions to reduce methane emissions by 45% by 2025 and ensure a dynamic portfolio of GHG emission reduction technologies (2014 base)



## Increase Value & Market Access

Support the successful commercialization of new value-added products to increase the market value of Alberta's oil and gas exports by 25% and expanding access to market



# Improve Oil Sands Efficiency

Oil sands production efficiency and economics improve by decreasing fresh water use by 50%, GHG emissions by 50% on a per barrel basis, and supply cost of bitumen to be globally competitive



#### Renewable Energy

Renewable energy sources like wind and solar will contribute 30% of Alberta's electricity generation

# **Environment & Climate Adaptation**



### Conserving Biodiversity

Biodiversity is maintained or enhanced at levels relative to reference conditions



#### Restoring Alberta's Landscapes

Reduce landscape disturbance intensity by 20% and accelerate reclamation of disturbed lands to promote native habitat and species recovery



# Sustainable Water Management

Safe, secure, and reliable water resources, while enhancing the health of the aquatic ecosystems and improving overall water use efficiency by 30% (2010 base)

#### Health



#### Improve Robustness of Health Data

100% of human health data, social determinants of health data, and health-related data in the province are secure, linked, and readily accessible to improve health outcomes and enable decision making and research



#### Improve Quality of Care

Alberta has a high performing and equitable health care system with improved service quality and health outcomes and a per capita cost at or below the Canadian average



#### Reduce Burden of Disease

Innovations in chronic disease prevention and management decrease the disease burden of Albertans, including a 25% decrease in avoidable mortality and a 20% increase in patient-informed quality-adjusted life years for Albertans with chronic disease



# Accelerate Health & Wellness Innovation

Alberta to become a top 10 location for research development and commercialization of health and wellness innovations in North America, leading to social and health benefits for Albertans and beyond

## Fibre & Bioindustrial

#### Increase Sales

Exports from Bioindustrial sectors increase by five times while maintaining environmental sustainability



#### Drive Investment

Industry operating in the value-added bioindustrial sector will attract an additional \$3 billion private sector investment in Alberta



#### Reduce Waste

50% reduction in organic waste to landfill through innovative technologies which produce valueadded products

