Figures accurate as of April 15, 2024
Emissions Reduction Alberta (ERA) reports on its activities on a quarterly basis. Figures are updated following each ERA Board meeting. For detailed information on projects and funding opportunities visit *ERAlberta.ca*.

NANOSTECH'S NEW TECHNOLOGY IS CATALYZING CHANGE IN ALBERTA'S OIL SANDS

NanosTech is poised to revolutionize oil production by substantially reducing greenhouse gas (GHG) emissions while cutting production costs. Since its founding at the University of Calgary's Alberta Ingenuity Centre for In-Situ Energy (AICISE), NanosTech has developed a novel nano-catalyst process that improves existing oil recovery methods, providing both economic and environmental benefits for the heavy oil industry.

Alberta's oil sands producers use steam-assisted gravity drainage (SAGD) to recover bitumen from underground reservoirs. Once the bitumen is brought to the surface, it is upgraded into heavy oil and diluted for transport through pipelines. This process requires large amounts of energy and produces substantial GHG emissions, making oil and gas extraction the highest emitting industry in Canada.

"Our goal is for every oil sands producer in Alberta to use our technology, so this province can experience significant economic and environmental benefits," explained Pedro Pereira-Almao, NanosTech's Founder and Chief Technology Officer.

Pereira-Almao and the NanosTech research team have dedicated their careers to optimizing what they see as an inefficient extraction process. Over the last 15 years, they have developed the In-Situ Upgrading Technology (ISUT), an innovation that eliminates the energy and emissions-heavy step of surface upgrading. Rather than pulling the bitumen above the surface, ISUT injects a nano-catalyst into the oil sands reservoir, upgrading the bitumen underground.

ISUT reduces water and steam requirements by up to 43 percent and lowers emissions by up to 35 percent. It also provides enhanced oil recovery by increasing production rates up to 50 percent and producing over 90 percent total recovery of original oil in place. Overall, ISUT raises the oil value to $5-8 per barrel.

ERA has committed $5 million to NanosTech's project through its Partnership Intake Program. The Partnership Intake Program allows ERA to evaluate proposed projects referred by Trusted Partners, organizations with rigorous, fair, and transparent processes comparable to ERA's. With funding secured, NanosTech is gearing up for a pilot demonstration in northern Alberta with a prominent oil sands producer, paving the way for commercial development.

"NanosTech is set to lead change in the oil patch sector. Thanks to ERA's support, we are bringing the enhanced oil recovery process to demonstration. Not only is ISUT is the most drastic decarbonization attempt in the oil sands industry, but it will also increase revenues for Alberta's economy," said Myles McGovern, President and CEO, NanosTech.

ERA-FUNDED METHANE EMISSIONS TECHNOLOGY TAKING OFF GLOBALLY

Insight M, formerly known as Kairos Aerospace, announced in February 2024 that it secured over $52 million in Series D funding to expand globally, allowing the company to bring their cost-effective, emissions-reduction technology to industrial facilities around the world.

By providing clear, actionable information about where, and how big, methane emissions are, Insight M's LeakSurveyor technology is tackling the challenge of detecting and capturing methane emissions. In 2016, ERA committed $263,000 to support a field demonstration in Alberta.

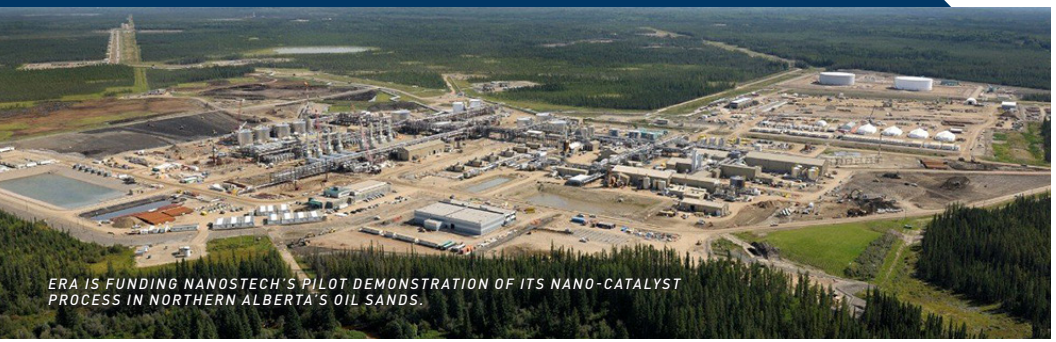
"With this fresh addition of capital and expertise, Insight M is positioned to bring its vitally important, market-leading methane-mitigation technology to customers around the world-to the benefit of all," said Zachary Bogue, Co-Founder and Managing Partner at DCVC.

Alberta's oil and gas sector accounts for about 70 per cent of the province's methane emissions, making detection and quantification vital to meeting 2050 climate targets. In 2016, through its Methane Challenge, ERA invested almost $30 million to 12 projects worth a combined value of more than $80 million. This was one of those projects.

Mounted on light aircraft, LeakSurveyor rapidly and cost-effectively scans industrial facilities and large areas of land to detect leaks, allowing Insight M to easily monitor spaces inaccessible to traditional methods. Aerial capture of methane concentration data is then converted into detailed plume images, allowing operators to direct ground crews to the exact location of leaks for immediate mitigation.

In 2022, Insight M saved their oil and gas customers almost $280 million in gas value and mitigated 70 million metric tons of CO_2. Series D funding will build on Insight M's technological and commercial achievements, positioning the company to meet the increasing demand for aerial methane detection from existing and new customers. Insight M plans to leverage this funding to expand their commercial teams and operations globally, while also investing in the advancement of cutting-edge methane detection technology and software products.

"At Insight M, every person is dedicated to ensuring the success of our customers," said Gregg Rotenberg, CEO of Insight M. "We will continue that commitment and are excited to have the support of our investors—both new and current—as we scale our value proposition, expand our global footprint, and invest in additional outstanding talent in order to assist the oil and gas industry with near- and long-term challenges and opportunities."



ERA IS FUNDING NANOSTECH'S PILOT DEMONSTRATION OF ITS NANO-CATALYST PROCESS IN NORTHERN ALBERTA'S OIL SANDS.

ERA-FUNDED INSIGHT M, FORMERLY KNOWN AS KAIROS AEROSPACE, SECURED $52 MILLION IN SERIES D FUNDING IN FEBRUARY.

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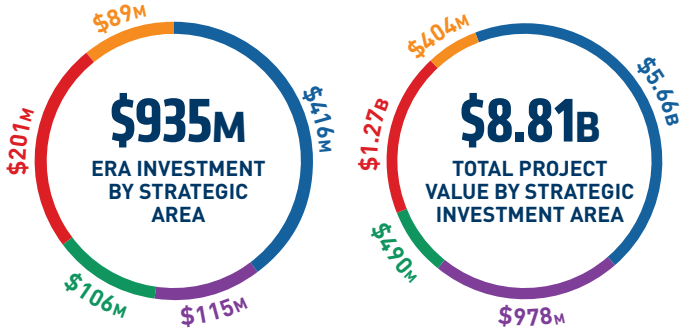
ERA is a legal tradename of the Climate Change and Emissions Management (CCEMC) Corporation and receives its funding from the Government of Alberta through the Technology Innovation Emissions Reduction (TIER) Fund.

Alberta

INVESTMENT IN TECHNOLOGY INNOVATION

277 Projects*

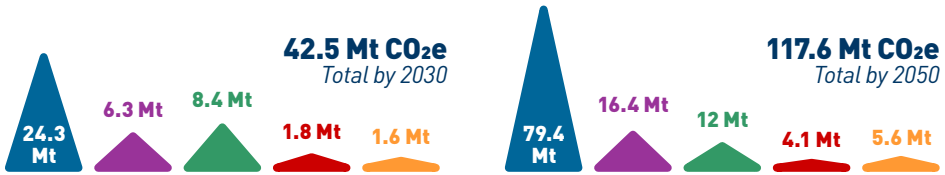
- **FUTURE FUELS** (72 Projects)
- **CIRCULAR ECONOMY** (53 Projects)
- **ENERGY EFFICIENCY** (41 Projects)
- **INDUSTRIAL TRANSFORMATION** (71 Projects)
- **CARBON SEQUESTRATION** (37 Projects)



*In 2012, ERA provided $7 million in funding for three adaptation projects worth $7 million in consultation with Alberta Environment and Parks.

8.5:1* LEVERAGED FUNDING FROM PUBLIC AND PRIVATE INVESTORS

CUMULATIVE PROJECT EMISSION REDUCTIONS



Note: We have estimated emission reductions for all projects with approved funding commitments and executed funding agreements and assumed the projects will continue successfully and as planned. Should circumstances change for these projects, emission reduction estimates may change materially.

INVESTMENT IN COMMERCIAL ADOPTION

ENERGY SAVINGS FOR BUSINESS PROGRAM

PROJECTS **2061**
INVESTED **$47 MILLION**
JOBS CREATED **1,277**
AB GDP CONTRIBUTION **$141 MILLION**
EMISSIONS REDUCED **3.3Mt OF LIFETIME EMISSIONS**

ALL PROJECTS

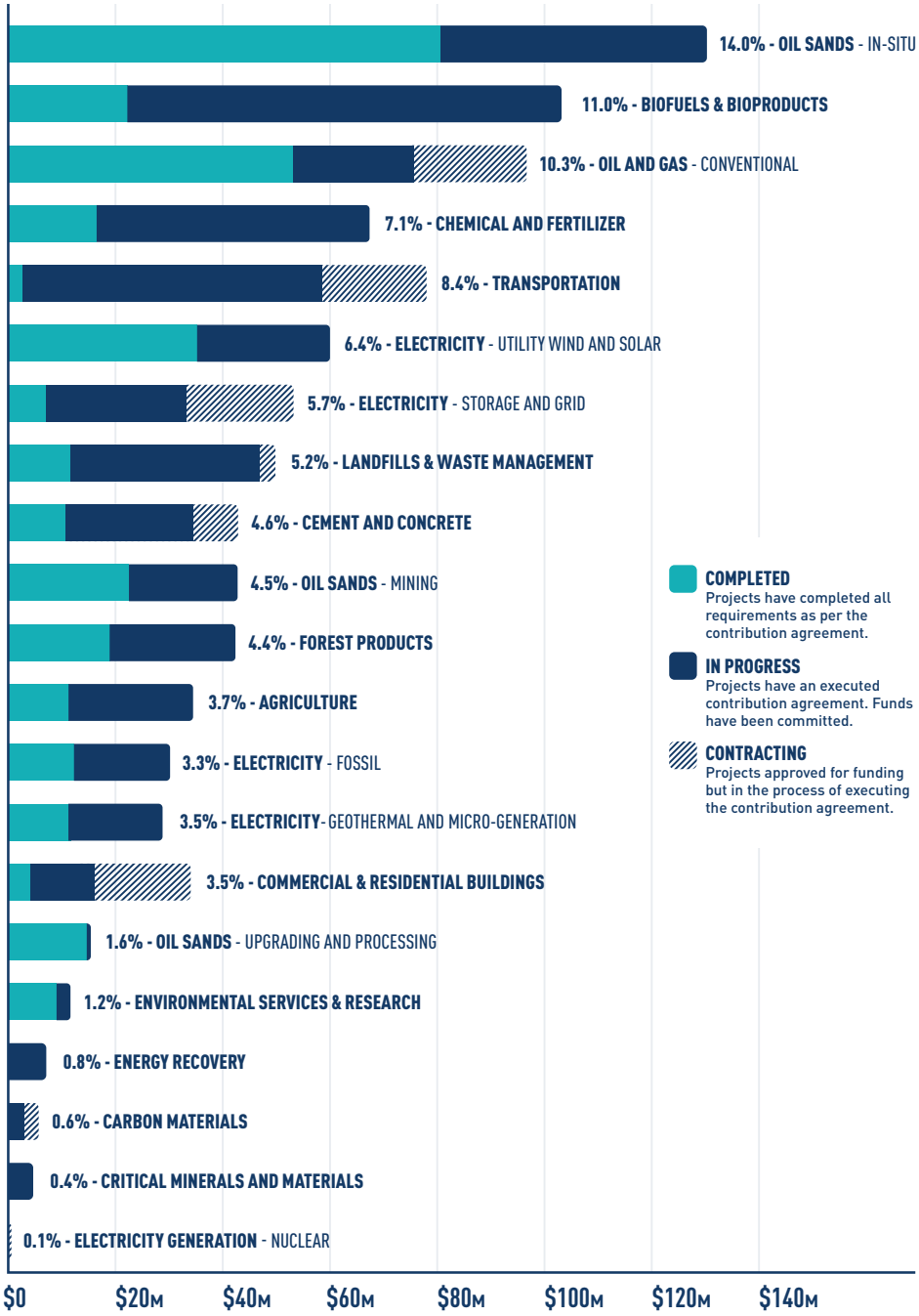
35,300 PERSON-YEAR** **JOBS IN ALBERTA** BY 2027 — **$5.4 BILLION** GDP IMPACT **TO ALBERTA** BY 2027

+

48,900 PERSON-YEAR** **JOBS IN CANADA** BY 2027 — **$7.25 BILLION** GDP IMPACT **TO CANADA** BY 2027

**A person-year is equal to one-year of employment for one individual. Please note: economic impact is reported on a calendar year basis, not fiscal year.

INVESTMENT IN A BALANCED PORTFOLIO



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