ALBERTA INNOVATES

# AGRICULTURE AND ENVIRONMENT

## BIOINDUSTRIAL AND CIRCULAR INNOVATION

BIONDUSTRIAL MATERIALS

FUNDING DETAILS

# Innovation Fund – Accelerating adoption of green construction technologies through demonstrations

The building industry is inherently risk-averse, with complex processes for sourcing technologies and products creating significant barriers to innovate. Addressing these challenges requires more than research and development—it demands the active involvement of key decision-makers to drive market growth and adoption. The Smart Sustainable Resilient Infrastructure Association (SSRIA), a non-profit organization dedicated to promoting sustainability, resilience, and innovation in the building sector, is addressing these challenges and fostering opportunities to strengthen the sector. This project will fund the demonstration of four clean technologies selected by industry peers to directly overcome known barriers and deliver measurable environmental and economic benefits.

**RECIPIENT:**
**SSRIA**

**PARTNERS:**
**Various Building Industry Members**

**TOTAL BUDGET:**
**$3.479M**

**AI FUNDING:**
**$499,500**

**PROJECT DATES:**
**MAR 2025 – MAR 2027**

**PROJECT TRL:**
**Start: 7**
**End: 9**

## APPLICATION

The application for the technologies being demonstrated include residential single family and multi-family buildings, including existing buildings in which the technology supports the retrofits of buildings to be more energy efficient and the construction of new buildings that produce fewer carbon emissions in production and operation. They key building components being addressed with this project are the foundation, exterior walls, and insulation.

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## BIOINDUSTRIAL AND CIRCULAR INNOVATION

### BIOINDUSTRIAL MATERIALS

## PROJECT GOALS

- Facilitate Low-Carbon Innovation Adoption: Validate and promote innovative technologies to address perceived risks and drive sector-wide adoption.
- Foster Industry Engagement and Awareness: Enhance market access for Alberta-based SMEs by showcasing their work locally and connecting them with key industry stakeholders.
- Support Evidence-Based Decision Making: Provide data-driven insights to enable cost-effective pathways to achieving net-zero buildings.
- Develop Skilled Workforce: Integrate demonstrations into training programs, preparing HQPs for the sustainable building roles.
- Address Systemic Barriers: Identify and mitigate regulatory, permitting, and knowledge challenges to streamline future technology adoption.
- Drive Environmental and Economic Benefits: Advance low carbon solutions while strengthening Alberta's AEC sector

## BENEFITS TO ALBERTA

- Economic: Spurs local innovation, boosts GDP, and supports job creation. Projects create new markets for Alberta wood and retrofit solutions, enhance exports, and reduce energy and construction costs.
- Environmental: Projects reduce GHGs by up to 200,000 t $CO_2e$ by 2030. Innovations enable 40–100% energy savings, replace high-carbon materials with wood, and divert plastics from landfills.
- Social: Delivers training, affordable and resilient housing, supports Indigenous communities, improves indoor air quality, and strengthens workforce diversity—especially women in construction. Enhances community well-being and builds capacity in underserved groups.

**8 Publications**

**4 New Products/Services**

**15 Project Jobs**

**30 of Future Jobs**

**1 kt/yr Project GHGs Reduced**

**230 kt/yr Future GHGs Reduced**

## CURRENT STATUS

**May 2025 – In progress**

**Three of the four demonstration projects are underway and have been showcased through a webinar so building industry members can start to engage and learn from the projects. The projects are currently in a planning and design phase and will move to construction later in 2025.**