

Horizon Europe – 2025 Climate, Energy & Mobility Work Programme

Background

As a benefit of association to Horizon Europe, Canada can now attend the meetings where the upcoming work programmes are developed. The first meeting we can attend for the Climate, Energy & Mobility cluster is on November 7, 2024. While we are unable to share the unredacted draft document with stakeholders, we are able to share a modified version of this document to obtain your comments. This input will be essential in shaping Canada's approach for this current as well as future work programmes with Horizon Europe.

Key Thematic Areas of the 2025 Climate, Energy & Mobility Work Programme

The 2025 Climate, Energy & Mobility is allocating a **total budget of €1.3 billion** to address six thematic areas or “destinations”. In general, the calls will open in April 2025 and have a deadline between September 2025 to February 2026. The destinations are detailed below with the anticipated number of projects to be funded and the general topics of focus.

1. **“Climate sciences and responses for the transformation towards climate neutrality”** (15 Projects)
 - a. Topics of Focus: supporting IPCC assessments with climate simulations data, developing Earth system models & advanced methodologies to better predict climate variability and assess its causal relationship with climate change, mitigating the release of fluorinated GHGs, assessing the effectiveness and limits of adaptation options, addressing socioeconomic and development disparities in climate justice, and setting the foundations for the EU-African Partnership on Climate Change & Sustainable Energy
2. **“Cross-sectoral solutions for the climate transition”** (16 projects)
 - a. Topics of Focus: development of next-generation low cost batteries for mobility and storage applications, improving the safety and efficiency of raw material processing and refining for battery production, expansion of multi-physical and virtual testing of batteries, recycling of EV batteries, and partnerships regarding sustainable urban development, clean energy transition, and renewable hydrogen
3. **“Sustainable, secure, and competitive energy supply”** (70 projects)

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- a. Topics of Focus: developing methods for large-scale production of advanced biofuels & renewable fuels and integrating them into value chains, reducing the costs of geothermal projects, supporting innovations in renewable technology (hydro, solar, wind) and ensuring their security, minimizing the environmental impacts of offshore wind energy, increasing photovoltaic manufacturing capacity and commercialization, developing wave energy converters, expanding energy storage and grid resiliency, as well as carbon capture, utilization, and storage
- 4. **“Efficient, sustainable, and inclusive energy use”** (16 projects)
 - a. Topics of Focus: employing robotic and automated solutions for building construction and renovation, building low carbon, climate resilient and energy efficient building stocks, facilitating the development of districts with a net positive yearly energy balance, and the integration of renewable energy sources in energy intensive industries
- 5. **“Clean and competitive solutions for all transport modes”** (24 projects)
 - a. Topics of Focus: establishing charging infrastructure and post-crash management processes for light duty battery electric vehicles, extending the lifetime of electric vehicles for long-haul logistics, designing next generation aircrafts with autonomous technology, implementing low and zero-carbon fuels in waterborne transport, reducing fuel consumption using wind assisted propulsion, & real-time emissions monitoring for waterfront cities
- 6. **“Safe, resilient transport, and smart mobility services for passenger and goods”** (21 projects)
 - a. Topics of Focus: integrating transportation modes, deployment and acceptance of safe automated vehicles, adapting transport infrastructure to be climate neutral, digitalization of freight transport and logistics, measuring transport emissions in transport chains, promoting the safety of cyclists, pedestrians and users on the road, predicting and avoiding road crashes based on machine learning methods, and research on anti-icing fluids

Please Note: As the planning processes for the 2025 Climate, Energy & Mobility Work Programme are ongoing, the details are subject to change.

Questions

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1. Are there any areas that align with your research? If so, what are they?
2. What areas would you like to be included in future work programmes?