

QUÉBEC HUB FOR RESEARCH AND INNOVATION IN ADVANCED MATERIALS (PRIMA QUÉBEC)



PRIMA QUÉBEC, the Québec hub for research and innovation in advanced materials, financed by the Ministry of Economy, Innovation and Export Trade, serves as the central hub for the implementation, coordination and support of an extensive innovation ecosystem conducive to the development of advanced materials. PRIMA QUÉBEC has already established more than **110 R&D partnerships** with a total value of **\$ 95 M**.

In Québec, the advanced materials industry is concentrated in the following sectors:

- Aeronautics and transportation
- Energy and environment
- Microsystems and smart textiles

PRIMA QUÉBEC intervenes along the entire value chain of advanced materials, from high value-added raw materials to the development of high-performance applications, including implementation processes.

Québec expertise is applied primarily to the following sectors:

- Nanomaterials
- Biomaterials
- Composites
- Microsystems (MEMS)
- Multifunctional materials
- Surface modification
- Micro/nano fabrication
- Additive manufacturing

Development of advanced materials related to the areas of defence and security:

- Functionalization and integration of nanoparticles (nanocellulose, carbon nanotubes, graphene) for enhancing the properties of materials
- Ultra-accurate engraving process for the development of MEMS for thermal or optical sensors
- Anti-erosion coating for aeronautic parts
- Development of smart textiles for tracking soldier vital data or high-performance textiles proving protection from shocks, radiation or harsh environments
- New 3D weaving technologies for high-performance composites
- Development of materials with large storage capacities (batteries) for soldiers or combat Vehicles.