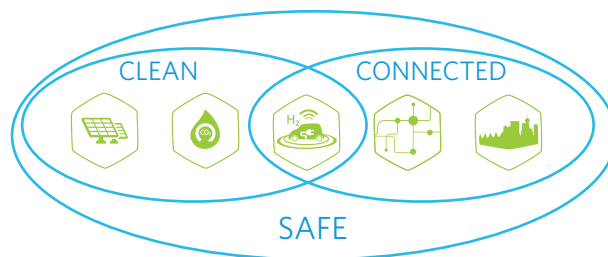


# Beyond Traffic: Supporting innovative research to enable Clean, Connected, and Safe Transportation

October 13<sup>th</sup>, 2017

VANCOUVER, BRITISH COLUMBIA — A city-scale living laboratory linking transportation, energy, information and communications technology to urban design will be deployed at the University of British Columbia— the new platform aims to transform transportation systems from a collection of passive, distinct entities into a highly coordinated network of people and technologies. Thanks to \$4.6 million in new research infrastructure funding from the Government of Canada through the Canada Foundation for Innovation (CFI), new breakthrough technologies and service-delivery models for transportation will be developed at UBC's Clean Energy Research Centre (CERC).



The funding was announced at the university today by the Honourable Jody Wilson-Raybould Minister of Justice and Attorney General of Canada on behalf of the Honourable Kirsty Duncan, Minister of Science as part of a CFI investment of more than \$554 million in 117 new infrastructure projects at 61 universities, colleges and research hospitals across Canada through the Innovation Fund.

As director of the CERC, mechanical engineering professor Walter Mérida, led a team of UBC researchers to secure the support for their project, "Beyond Traffic: Clean, Connected and Safe Transportation Testbed."

The new infrastructure will create a unique Canadian platform to develop renewable energy storage methods using hydrogen and bi-directional electric vehicle recharging, the next generation of wireless, digital communication protocols for connected vehicles, and greenhouse gas emissions (GHG) reduction pathways using low- or zero-carbon fuels.

Researchers across many disciplines will translate the new knowledge and technologies into Smart City design, policy recommendations and technology deployment strategies. They will also demonstrate disruptive innovation in new business models ("Car as a Service") that can enable order-of-magnitude reductions in the cost of personal mobility.

# CLEAN, CONNECTED, SAFE TRANSPORTATION TESTBED



**Renewables to transportation**



**Low-carbon fuels and technology**



**Autonomous, connected vehicles**



**Safe & connected infrastructure**



**Smart city design**

As Canada's most sustainable university, UBC is uniquely positioned to host the testbed. It is ranked as one of the top 40 research universities worldwide, and it is the first Canadian university to develop a sustainability policy. Under this policy, the Kyoto targets were reached in 2007, ahead of schedule and despite concurrent growth in student population (35%) and built floor space (16%). Since then, UBC set the most aggressive greenhouse gas emission reduction targets among its peer universities and reduced emissions by a further 33 per cent by 2015.

"The Innovation Fund encourages institutions and its researchers to think big and strive to be global leaders by conducting world-class research. This funding pushes researchers to aim higher in their pursuits by collaborating across disciplines, institutions and sectors. With this support, institutions can build on their current research strengths and set their sights on accelerating research that will create social, health, environmental and economic benefits for all Canadians."

– Dr. Roseann O'Reilly-Runte, President and CEO, Canada Foundation for Innovation

"Renewable electricity can enable a variety of energy services, but transportation is still largely dependent on fossil fuels. Our first grand challenge is to link intermittent, renewable energy to clean transportation and to low- or zero-carbon fuel production. The second challenge is to enable transportation services that are securely connected not only to users and autonomous vehicles, but also to the underlying infrastructure. The third challenge is to ensure that new technologies, processes and practices are safe and resilient as the world moves to live in smart, healthy cities."

– Dr. Walter Mérida, Director Clean Energy Research Centre, University of British Columbia

