

A photograph of an industrial facility, likely a refinery or chemical plant, at night. The scene is illuminated by warm lights from the facility, contrasting with the dark blue twilight sky. A prominent white sign with the Energkem logo and name is visible on the left side of the structure. The facility consists of a complex network of metal scaffolding, pipes, and towers.

Ottawa, November 5-7, 2018

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Marie-Helene Labrie  
Senior Vice-President, Government Affairs & Communications  
Energkem

# Conference Scaling Up 2018 – Competing in the Global Bioeconomy Market



# Transitioning to a circular and bioeconomy

*Clean innovation using garbage to replace the use of petroleum sources for the production of fuels & chemicals*



Value added bio-based products to the consumer



Post-consumption waste generation (non-recyclable waste)



Replacing fossil sources with low-carbon methanol and ethanol




Converting waste into biofuels and renewable chemicals

# Enerkem's path from lab to commercial-scale




**LAB**  
Université de Sherbrooke



**2000**  
Lab Phase

**PILOT**  
Sherbrooke




**2003**  
Pilot Phase

**DEMONSTRATION**  
Demonstration facility in Westbury



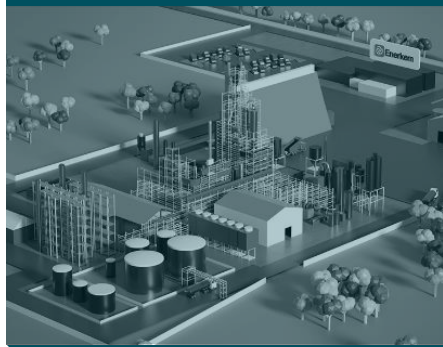
**2009** Syngas  
**2011** Methanol  
**2012** Ethanol

**COMMERCIALIZATION**  
Enerkem Alberta Biofuels facility in Edmonton



**2013 - 2017**  
Construction & Development

**INT'L EXPANSION**  
Deployment across Canada, the United States, Europe, and China.



**2018 +**  
Future Developments & Expansion

# World's first MSW-to-Biofuels and Chemicals Facility

## Edmonton, AB, Canada



# OTHER ENERKEM MSW-TO-BIOFUELS PROJECTS

## CANADA

Next project in Varennes, Quebec, with construction expected to begin in 2019.

## EUROPE

- Project under joint development with AkzoNobel, Port of Rotterdam and Air Liquide. Currently in permitting phase.
- Other projects currently under development in Europe, including with SUEZ in Spain.

## UNITED STATES

Several projects under development with cities and industrial groups.

## CHINA

Major joint venture signed with Sinobioway for 100 Enerkem facilities in China by 2035.

