



GREENFIELD
GLOBAL

The Loop is Already Closed

Resource Recovery Conference 2018

Presented by John Wilkinson , SVP Sustainability

26, 2021



Greenfield Global has a Vision to get back to <350 ppm CO2



To align with our sustainability vision we look for opportunities to reduce our energy costs and lower the carbon intensity of our products.



The Bio-economy Is In Our Genes

VISION+MISSION



OUR MISSION

TO UNLOCK THE POTENTIAL OF PEOPLE, PARTNERSHIPS & NATURE
TO ACCELERATE SUSTAINABLE SOLUTIONS
FOR THE HEALTH OF THE PLANET.



Who is Greenfield Global?

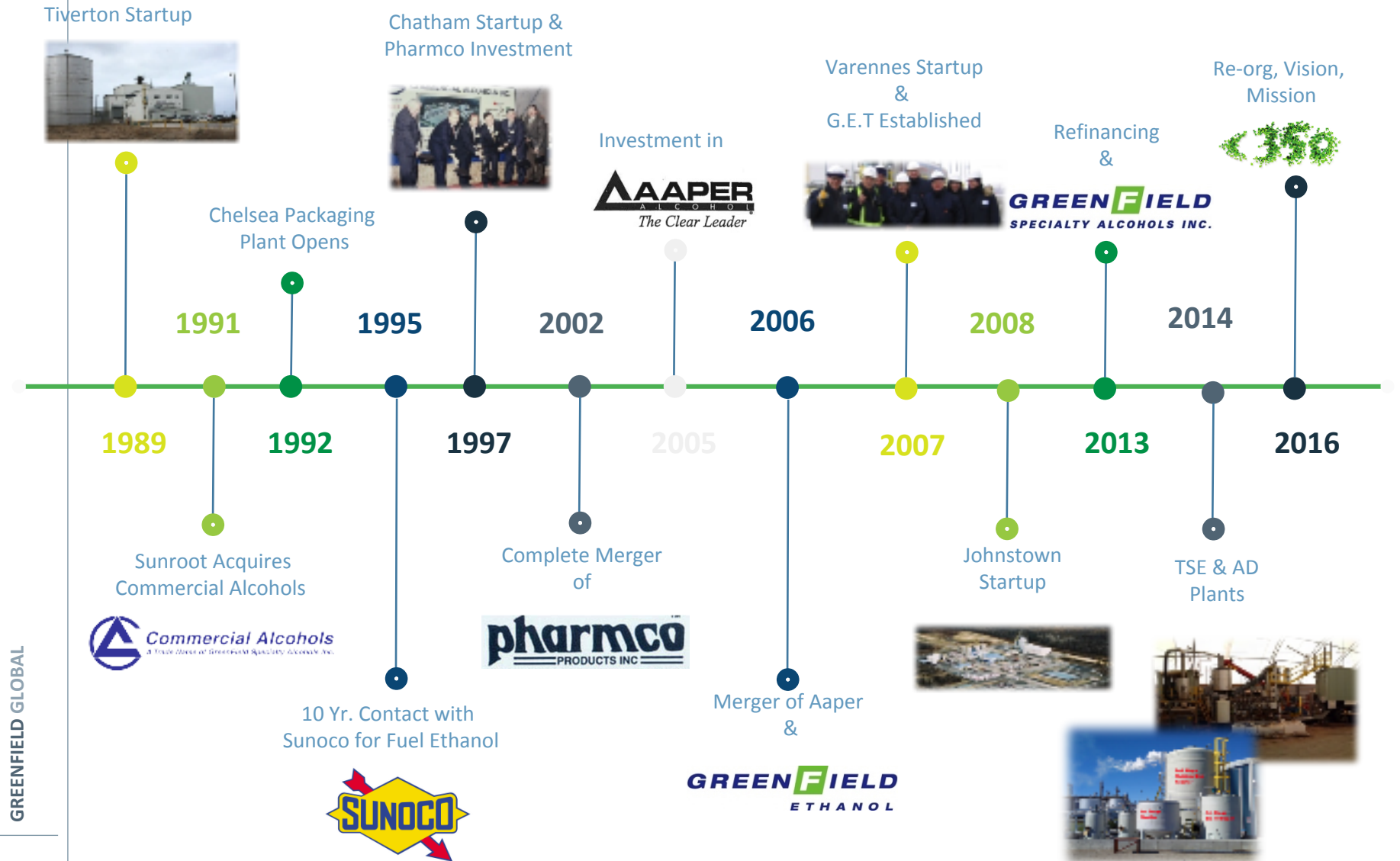
In Canada: #1 Producer of fuel ethanol
In North America: 20% Market share of Pharma Grade Alcohol
Globally: Major supplier of industrial alcohol to 60+ countries

In Ontario & Quebec we are:

- #1 Purchaser of Corn
- #1 Supplier of DDGS
- #6 Consumer of Natural Gas



History of Greenfield Global





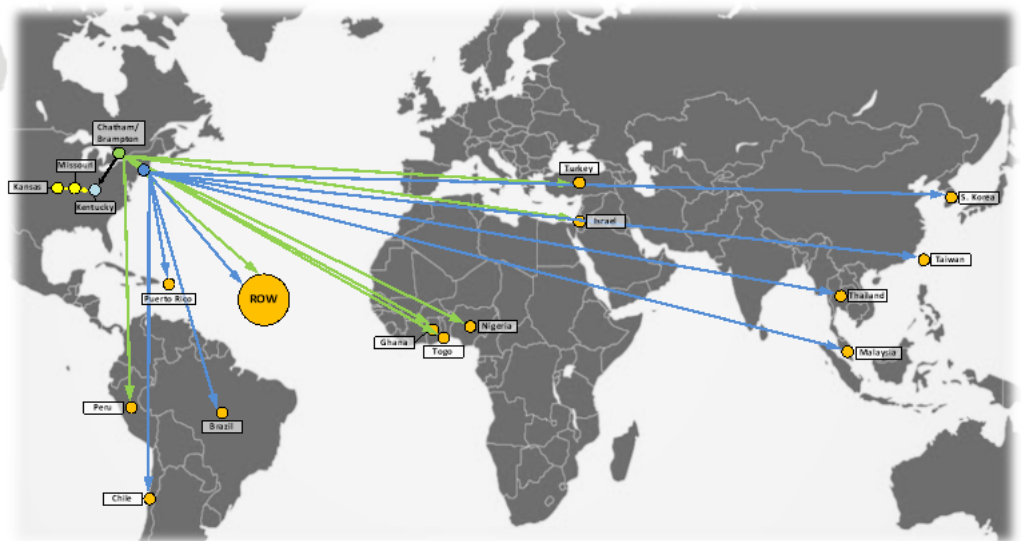
Greenfield Global has A Diversified Asset Base



We sell a growing number of products

We have 60+ distributors in 50+ countries

**350 Canadian Employees
150 US Employees**





PROBLEM - CLIMATE CHANGE

Every day humans are:

Extracting fossilized carbon from below ground,

Burning (oxidizing) it, and

Pouring **100 megatonnes** of fossilized carbon dioxide into the atmosphere.

This is unsustainable



FROM:

Below Ground

Fossilized

Oil & Gas & Coal

Waste

TO:

Above Ground

Organic

Agriculture & Forestry

Resource



Organic Waste in Landfill is a Big Challenge

Organic waste in landfills has an environmental impact.

Organic waste decomposition produces methane that is 25 times more potent than CO₂ in terms of global warming potential.

Decomposition also produces leachate that can contaminate groundwater.

It costs ratepayers \$\$ to tip waste into a landfill.



So how do we turn organic waste into a resource?

We ask Mother Nature what does she do?

She uses many natural processes to turn one species waste into another species resource.

One of her many answers is Anaerobic Digestion.



The Loop is Now Closed at Varennes, Quebec on the south shore of Montreal





Our Anaerobic Digestion (AD) facility is a joint venture between Greenfield Global and the Société d'économie mixte de l'est de la couronne sud (SEMECS), i.e. 3 regional governments comprised of 27 municipalities, c. 270,000 residents.

Processes 40,000 tonnes/year of source separated organic waste generated by residents on the South Shore of Montréal.

Plant fully commissioned by Q4, 2018.

Project received 2/3's provincial capital funding.



SEMECS plant is across the Road from Greenfield Plant





The Joint Venture allows:

Greenfield Global to use the biogas produced by the AD to reduce our Varennes ethanol plant's GHG footprint by 15%, helping us to meet our <350 Vision and mitigate carbon price exposure.

The 27 municipalities to meet the pending organic waste ban in Quebec while reducing the costs borne by their ratepayers.



SEMECS Basics: Feedstock supply + biogas offtake

1. The 27 Municipalities have a 20 Year commitment to feed the plant with diverted, source separated organic waste:
 - Segregate
 - Collect
 - Transport
2. Greenfield Global has a 20 Year agreement to:
 - Purchase the AD biogas (via pipeline under the road)
 - Feeds our DDGS Driers
 - Reduces our CO2 footprint
3. Greenfield Global ideally positioned to oversee:
 - Technical and financial structure
 - Plant construction
 - Plant operation



SEMECS Pictures from December 2017

