Breakfast with the Experts

PURCHASING MADE PRACTICAL

@RICCentre

#GYBPurchasing

September 23, 2015
Speaker presentation

BLAKE SMITH
Director, Environment, Energy and Vehicle Safety
Ford Motor Company of Canada
Sustainability at Ford
RICC – Growing Your Business Seminar
Sept 2015

Blake Smith
Director
Sustainability, Environment & Safety Engineering
Ford of Canada
About Ford Motor Company

World Headquarters in Dearborn, Michigan

171,000 employees
67 plants
40 distribution centers/warehouses
58 engineering research/Development facilities

Global Reach
North America

Central & South America

Europe

Asia Pacific

Middle East

Africa

Canada
7319 employees
425 dealers
2 engine plants
1 assembly complex
2 R&D centres

113 sales offices
Ford Definition Of Sustainability

“A business that makes nothing but money is a poor business.”
- Henry Ford

“Improved sustainable performance is not just a requirement, but a tremendous business opportunity.”
- Bill Ford

A business model that creates value consistent with the long-term preservation and enhancement of environmental, social and financial capital.
Manufacturing Sustainability At Ford

- Living Roof
- Storm Water Management
- Energy Use Management
- Waste Management

The use of porous asphalt and pervious pavers, along with the living roof and various retention ponds, phosphates and nitrates are naturally removed from rainwater and snowmelt.
Ford’s water strategy aligns with the core elements of the CEO Water Mandate, which we endorsed in 2014.

- **61% reduction** in total global water use between 2000 and 2013 – or more than 10 billion gallons.

- **Ford’s Global Water Management Initiative in June 2000**

- **Founding responder of CDP Water Disclosure Project in 2010**

- **Met goal to reduce the amount of water used to make each vehicle by 30% globally two years early**

Global water use decreased by more than 61% and water use per vehicle by more than 40% since 2000 – saving >10 billion gallons.
Energy Management (Global)

Daylight Monitoring System - Rouge Plant, Michigan

Geo-Thermal Cooling - Lima Engine Plant, Ohio

Wind Power - Dagenham Diesel Centre, London

Solar Arrays – Bridgend Engine Plant, England
FORD has 49 zero waste-to-landfill facilities located around the globe.

- United States: Van Dyke Transmission
- Canada: Essex Engine, Windsor Engine, Oakville Assembly Complex
- Taiwan: Lio Ho Assembly
- Germany: Cologne Engine, Cologne Die Cast, Cologne Cotorko, Cologne Assembly, Saarlouis Assembly
- India: Chennai Engine, Chennai Assembly
- Thailand: Ford Thailand Manufacturing
- China: JMC Engine, JMC Transit

A five-year helps Ford global waste reduction plan lessens its environmental impact.

5 KEY ACTIONS

INVEST
Continue investing in new technologies that minimize waste.

IDENTIFY
Identify the five largest-volume sources of waste-to-landfill at each facility.

PARTNER
Partner with suppliers to increase use of eco-friendly packaging.

STANDARdIZE
Standardize how waste is tracked and sorted at each point.

ENABLE
Enable local plants to affect waste management change.
Product Sustainability: It’s All About Products
Four pillars of global product strategy

- **Quality**: Ford is committed to achieving world-class vehicle quality and desirability.
- **Green**: Ford has shown a commitment to reducing its impact on the environment.
- **Safe**: Ford is a recognized safety leader in the industry.
- **Smart**: Delivering technology solutions that enhance owning, driving, and riding in a Ford.

*These Attributes Are the Foundation of Our Brand*
Ford’s Blueprint for Sustainability

**Near Term**
- Begin migration to advanced technology

**Mid Term**
- Full implementation of known technology

**Long Term**
- Continue leverage advanced gasoline and electrified vehicles and deployment of alternative Energy sources

- **Near Term**
  - Advanced Gasoline Engines
  - Hybrids
  - Natural Gas/LPG

- **Mid Term**
  - Electrified Vehicles
  - Weight Reduction

- **Long Term**
  - Fuel Cells
  - New Materials
  - Increased Electrified Vehicles

- Founded on Affordability for Millions of Customers, Remains in Place As We Move to the Mid-Term
Ford’s strategy is to provide affordable technologies to the millions through green, safe, smart designs and quality products.
## The Power of Choice

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>All Electric</th>
<th>Plug-in Hybrid</th>
<th>Hybrid</th>
<th>EcoBoost™</th>
<th>E85</th>
<th>CNG/Propane</th>
<th>B20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiesta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C-MAX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taurus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Escape</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explorer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expedition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transit Connect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transit/E-Series</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F150</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F250-F350</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F450-F550</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F650-F750</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stripped Chassis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* In Development
F-Series is Canada’s best-selling truck for 49 consecutive years

High-strength, aluminum alloys used throughout the F-150 saving weight, up to 700 pounds
Product Sustainability: Opportunities For Recycled Materials

Laundry & Milk Bottles into:
- Windshield washer bottles
- Climate Control Air Ducts

Windshield washer bottles

Climate Control Air Ducts

Post Industrial recycled bumpers

100% Recycled carpets & fabrics

Tires into:
- Aero deflectors
- Under hood covers

Battery casings into:
- Splash shields
- Rocker moldings

Recycled Polyurethane & foam components
Ford specifies renewable materials where function and cost are maintained or improved.
Blueprint for Mobility

Near Term

Experimentation

2012

2017

Strategic partnerships

Grow as customers

Energy and business experimentation
In June 2015, Ford Published Its 16th Annual Sustainability Report
2014 Best Global Green Brand

01 Ford
02 Toyota
03 Honda
04 Nissan
05 Panasonic
06 Nokia
07 Sony
08 adidas
09 Banone
10 Dell
11 Samsung
12 Johnson & Johnson
13 BMW
14 Philips

GAP: Ford = 3.2
GAP: Toyota = 0.3
GAP: Honda = 1.8
GAP: Nissan = 6.6
GAP: Panasonic = 13.9
GAP: Nokia = 10.0
GAP: Sony = 10.7
GAP: adidas = 5.1
GAP: Banone = 3.8
GAP: Dell = 8.9
GAP: Samsung = 3.3
GAP: Johnson & Johnson = 2.6
GAP: BMW = 5.8
GAP: Philips = 5.4

Ford: The Right Way

www.bestglobalgreenbrands.com

Perception: Performance
Our Sustainability Is…

Great Products – Strong Business – Better World

https://corporate.ford.com/go/sustainability
https://corporate.ford.com/innovation/innovation-ideas-submission
https://fsp.portal.covisint.com/web/portal/home
Next seminar:
Disruptive Tech Forecast for 2016
December 3, 2015