

**Customer Focused**  
**Continuously Improving**  
**High Performing Culture**

# **Volvo Group Trucks Hagerstown Site**

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A composite image featuring a Volvo semi-truck on the left and an oil pumpjack on the right, both set against a sky with scattered clouds. The truck is a modern, dark-colored model with a prominent chrome grille and Volvo logo. The pumpjack is a large, dark metal structure. The overall scene suggests a connection between transportation and the energy sector.

# Volvo Group Mission

Driving prosperity through  
transport solutions.

Modern logistics is a  
prerequisite for economic  
welfare; transport helps  
combat poverty.



**On the road**

**In the city**



**Off road**

**At sea**



**The Volvo Group, which employs about 100,000 people, has production facilities in 18 countries and sells products in more than 190 markets.**





# Economic Impact of Volvo Group

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- More than 15,000 employees in North America



- \$250M invested annually in the U.S. in R&D
- 60M in Hagerstown



- \$5B annual economic impact in MD, VA and PA



# HAGERSTOWN

We are a unique site, combining Technology and Operations on one campus.

We blend powertrain engineering and innovation with lean manufacturing and automation.

We develop and produce the heart of the vehicle.





# Volvo Group Trucks, Hagerstown

1961

2017

## ECONOMIC IMPACT

- Deliver in excess of \$1 Billion in economic output
- Generate \$10 Million in State and Local Tax revenue
- In 2016, paid \$110M in wages





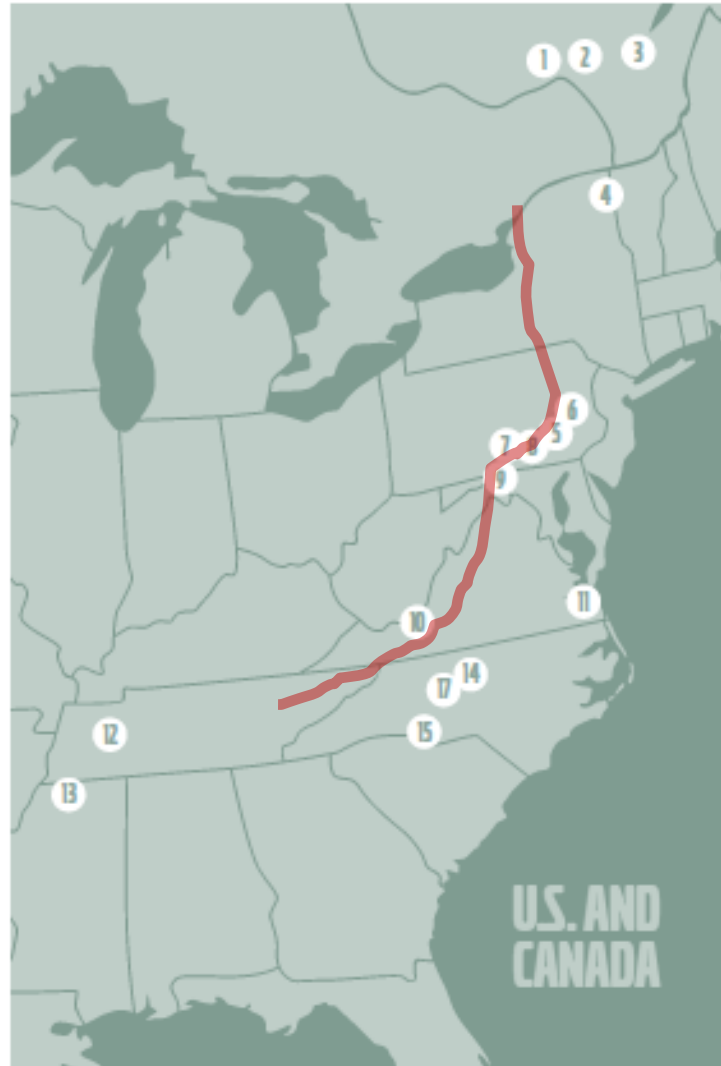
**Many ways I-81 intersects our business**



# Volvo Group presence on the I-81 Corridor

## MAJOR NORTH AMERICAN FACILITIES

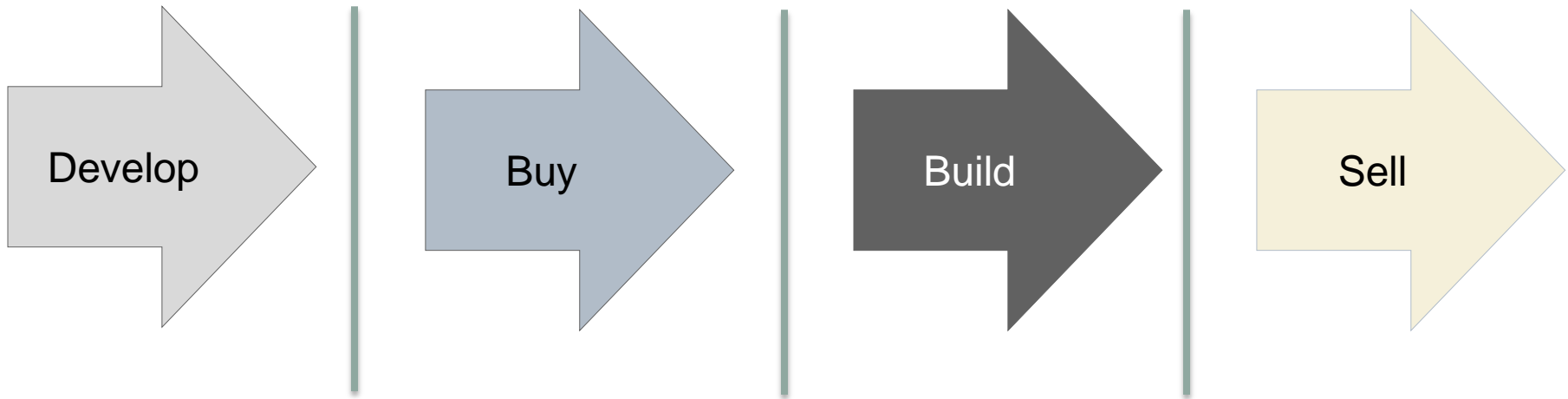
- 1 Nova Bus Manufacturing and Headquarters  
St. Eustache, Quebec, Canada
- 2 Nova Bus Manufacturing  
St. Francois Du Lac, Quebec, Canada
- 3 Prevost Manufacturing and Headquarters  
Sainte-Claire, Quebec, Canada
- 4 Nova Bus and Prevost Manufacturing  
Plattsburgh, NY
- 5 Mack Trucks Manufacturing  
Macungie, PA
- 6 Mack Customer Center  
Allentown, PA  
Mack Defense Headquarters
- 7 Volvo CE Manufacturing and Americas Headquarters  
Shippensburg, PA
- 8 Volvo Group Remanufacturing Facility  
Middletown, PA
- 9 Volvo Group Powertrain Manufacturing and Technology  
Hagerstown, MD
- 10 Volvo Trucks Manufacturing  
Dublin, VA
- 11 Volvo Penta of the Americas Headquarters  
Chesapeake, VA
- 12 Volvo Penta Manufacturing  
Lexington, TN
- 13 Volvo Group Central Parts Distribution Center  
Byhalia, MS
- 14 Mack Trucks World Headquarters  
Greensboro, NC  
Volvo Trucks North American Headquarters





# Our Business at the Hagerstown Site

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## Where does 81 intersect...?



# We engineer, develop and test Powertrains

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Develop

- All North American application work for powertrain products is tested in the Engineering Laboratory
- Our second test method is driving trucks on the highways and roads
- We have a test fleet of ~70 trucks, and trucks from that fleet are on the road 24/7.





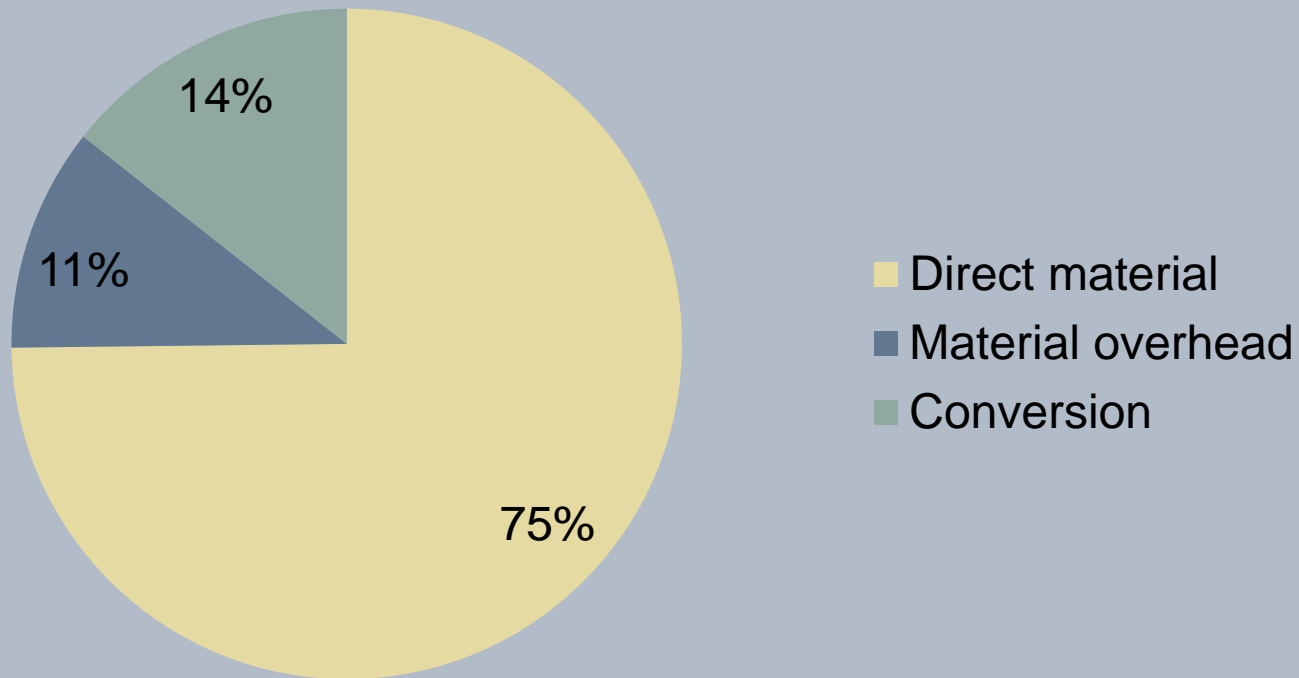
# Parts to Plant:

Material and Logistics Costs are a huge part of the cost of products

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Buy

## Standard cost





# Parts to Plant:

Material and Logistics Costs are a huge part of the cost of products

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Buy

Always looking to have **supply base as close as possible**

- \$1B in spend; \$450 M in spend with US Suppliers
- In the last 5 years resourced \$100 M to US suppliers

Every part travels on I-81 and **must arrive on time**

- 30-60 trailers per day making deliveries
- 30-40 containers through the port of Baltimore per week

**When parts cannot get to the plant, our lines do not run!!!**

- **Cost Impact \$700/min or \$42,000 per hour**
- Employees work holidays or weekends to make up lost production
- We carry millions of extra dollars of inventory to prevent line stoppages



# Our Hagerstown Operation

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Build

## Employees getting to work

- 1,500 employees
- 40% of employees live in Maryland
- 50% of employees live in Pennsylvania
- >70% of employees use Interstate 81 to get to work, all employees must use either I-81 or a parallel detour route to get to work
- Operate 2-3 shifts
- **Safety, timeliness, and quality of life** all affected by **I-81 availability**

## When employees cannot get to work our lines do not run!!!

- **Cost Impact \$700/min or \$42,000 per hour**
- Employees work holidays or weekends to make up lost production



# Delivery to Our Customers

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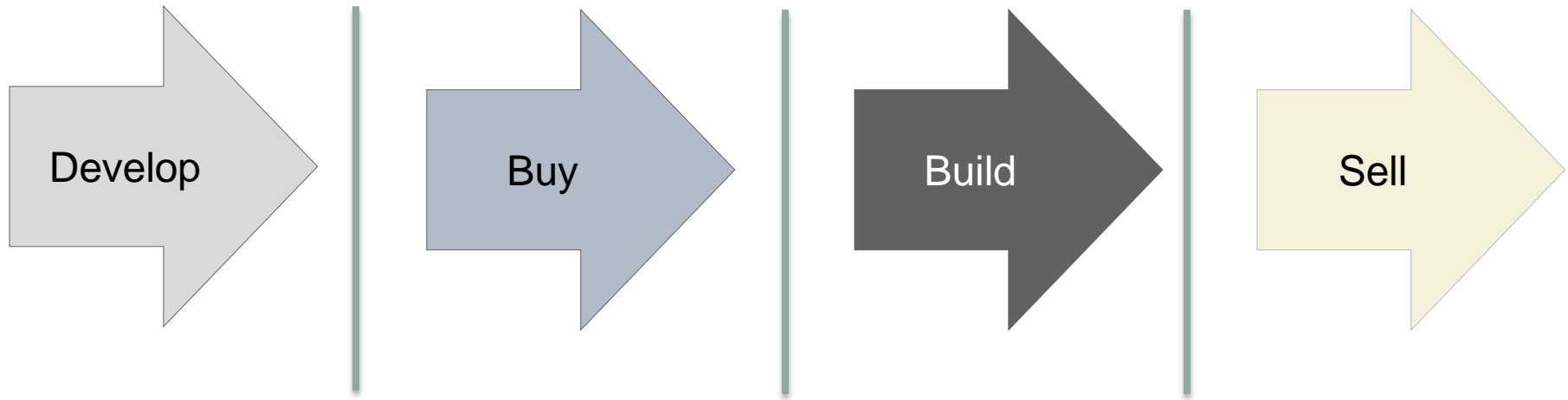
Sell

- **Delivery** in the most basic sense is **to our customers from our factory** in Hagerstown
- If we cannot **deliver on-time** with the right cost, they will find someone else who can
- **When our components do not make it to vehicle assembly plants!!!**
  - Cost Impact \$1,500/min or \$90,000 per hour
  - Employees work holidays or weekends to make up lost production
  - Late delivery to customers



# Our Business at the Hagerstown Site

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## Where does 81 intersect...?



# When it Snows, We Have a Tool to Keep I-81 Open

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## Gold Bulldog born in Hagerstown, MD

