Volvo Buses

T Tunberg
Global drivers impacting our society

• Population growth and urbanization
• Changes of demography in Western World
• Climate change and alternative fuels - globally
• Shortage of natural resources and raw material
• Environmental regulation incl. noise
• Traffic and road safety
A complete offer of buses and services
Volvo Group Organization

- Group Trucks Sales
- Group Trucks Operations
- Group Trucks Technology
- Construction Equipment
- Business Areas
- Volvo Financial Services
Volvo Buses – leading bus manufacturer with focus on systems for sustainable public transport
The Volvo brand – high quality buses, coaches, chassis and services

<table>
<thead>
<tr>
<th>BUSES</th>
<th>COACHES</th>
<th>CHASSIS</th>
<th>SERVICE</th>
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<tbody>
<tr>
<td>• Green Efficiency</td>
<td>• Low Lifecycle Cost</td>
<td>• Preferred body builders</td>
<td>• Fuel efficiency</td>
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<tr>
<td>• Low Lifecycle Cost</td>
<td>• Safety</td>
<td>• Low Lifecycle Cost</td>
<td>• Availability and Uptime</td>
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<td>• Strong aftermarket support</td>
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<td>• Workshop integration</td>
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Corporate Presentation 2015
Volvo Buses manufacturing and PD sites

- Chassis
- Complete buses
- Chassis, independent manufacturers, CKD

Locations:
- Quebec
- Montreal
- Plattsburgh
- Mexico City
- Casablanca
- Tunis
- Curitiba
- Durban
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- Durban
- Chennai
- Madrid
- Taipei
- Hsiang
- Shanghai
- Durban
- Bangkok
- Tunis
- Göteborg
- Uddevalla
- Wroclaw
- Montreal
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Sales 2014

Sales SEK 19 billion

- International: 17%
- Europe: 33%
- North & South America: 50%

Volume 8,759 units

- International: 21%
- Europe: 27%
- North & South America: 52%

City/Coach (no of vehicles)

- City: 53%
- Coach: 47%

Chassis/Complete

- Chassis: 53%
- Complete: 47%
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A leader in electrified vehicles, exceeding 5,000 buses sold

More than 5,000 hybrid and full-electric buses sold
Electromobility in Bus Rapid Transit applications

- High-capacity buses
- Distinctive image
- Prepaid ticketing
- Telematics
- Stations or enhanced stops
- Dedicated lanes
The Volvo Hybrid was launched in 2010 – offering up to 39% fuel reduction

- More than 2,000 buses sold in 21 countries (January 2015)
- Volvo hybrid product range: Volvo 7900 Hybrid 12 m and Volvo 7900 Hybrid articulated 18 m.
- Reduces fuel consumption by up to 39%
- Reduces CO$_2$ by up to 39%
- Reduces hazardous emissions by close to 50%
- Noise reduction at bus stops, silent take off in electric mode
The Volvo 7900 Electric Hybrid was introduced in 2014, offering 60% energy savings

- Increased attractiveness of public transport
- Allows indoor bus stops and operation in sensitive city centre areas
- Runs in electric mode for 7 km - quietly and emission-free
- Up to 75% fuel savings and lower exhaust emissions
- 60% total energy savings
- Fast charging at bus terminal in 6 minutes
The Volvo Electric Concept Bus will be launched in 2015

- No emissions in city centre
- Zero emissions in operation
- 80% energy saving
- Runs on electricity the whole route, silently and emission-free
- ElectriCity: an innovative, electrified bus system in Gothenburg June 2015
Levels of electrification in the city: from full electric to hybrid solutions
Competences for the future

- Electronics
- Software – application engineering
- Telematics
- Light weight design
- Noise and vibrations
- Cost engineering
- Communication
- Ability to change / adapt
- Working in a global environment
- Cross-functionality (design for assembly, design for aftermarket)
- Business mindset
Thank You