

# TRANSFORMING TRANSPORTATION

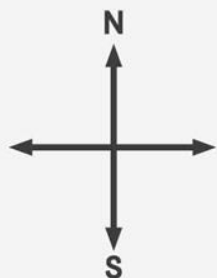
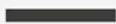
THE ROAD TO  
SUSTAINABLE  
MOBILITY



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# CHALLENGES TO SUSTAINABLE MOBILITY

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# SMART MOBILITY ELECTRIC



Electric buses contribute to a better city climate and quality of life by reducing CO2 and particle emissions and lowering noise levels. Electric motors are efficient and reduce the energy consumption for transport

Photo: Volvo. Electric city buses enable indoor bus stops.

# SMART MOBILITY AUTONOMOUS



Photo: Scania



Photo: Volvo

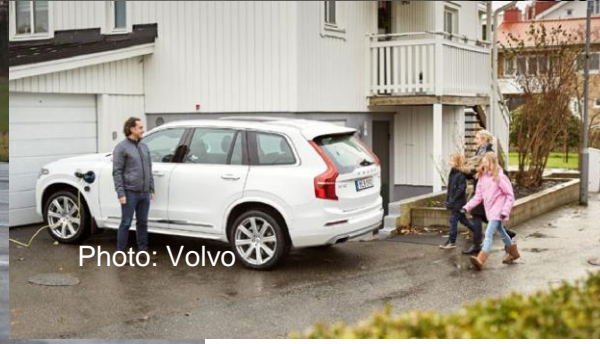


Photo: Volvo

The Hain family in Gothenburg are the first people chosen to take part in “Drive Me”, a real-life autonomous drive research programme using real cars, in real traffic.

# SMART MOBILITY FUEL



The use of biofuels for transport in Sweden has increased steadily since 2001. Biodiesel has increased the most since 2010. Biogas is also increasing while Bioethanol has decreased. In the major cities, all buses and most taxis run on biofuels.

Source: Svebio



# ELECTRIFICATION

## Getting the right fuel in place

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# Electrification

Getting the right fuel in place  
ABB and Volvo to electrify Gothenburg's city streets

Photo: ABB



# REAL ENVIRONMENT testing of 'Elways'

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## About electrified roads

There are several methods of building electrified roads. Inductive technology involves a magnetic transmission of energy. Conductive technology, meanwhile, allows for electricity to be supplied in one of two ways: either contact from above through overhead lines (E16 Sandviken) or from below via conductors in the road (eRoadArlanda).

The major advantage of electrified roads is the elimination of vehicle emissions. Additionally, both energy consumption and maintenance costs are significantly lower than for vehicles using combustion engines. Electric motors can reach a 98 per cent efficiency level, with an average efficiency around 90 per cent, while diesel engines can be as efficient as 40 per cent, with an average around 33 per cent.



# CONNECTING DEVICES

Using smart technology to optimise society

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# AUTOMATION


– Developing the driverless  
mobility of the future

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Automation – Developing  
the driverless mobility of  
the future

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The world's first fully electric, autonomous  
40-seater Volvo bus in Singapore

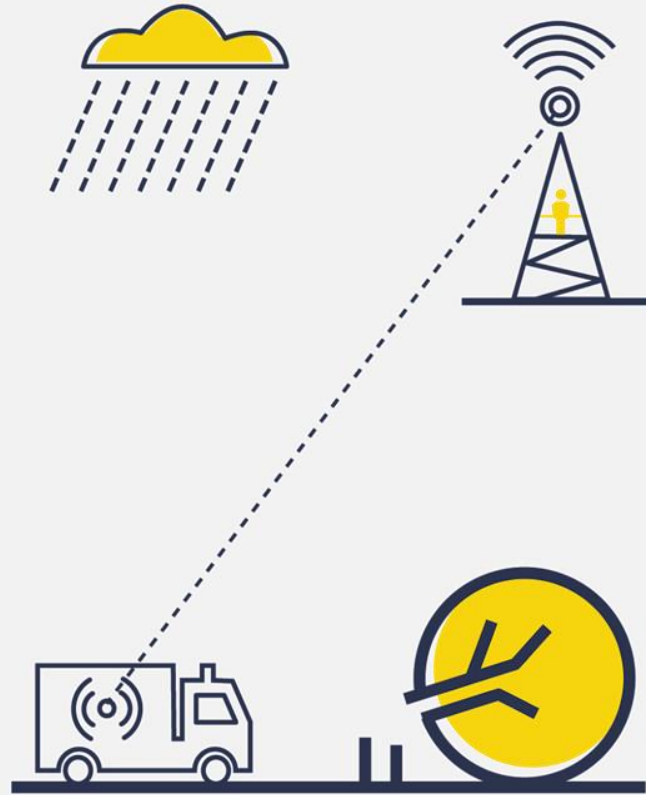
Photo: ABB



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# TOWARDS an automated society

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Automated  
Vehicle Traffic  
Control Tower



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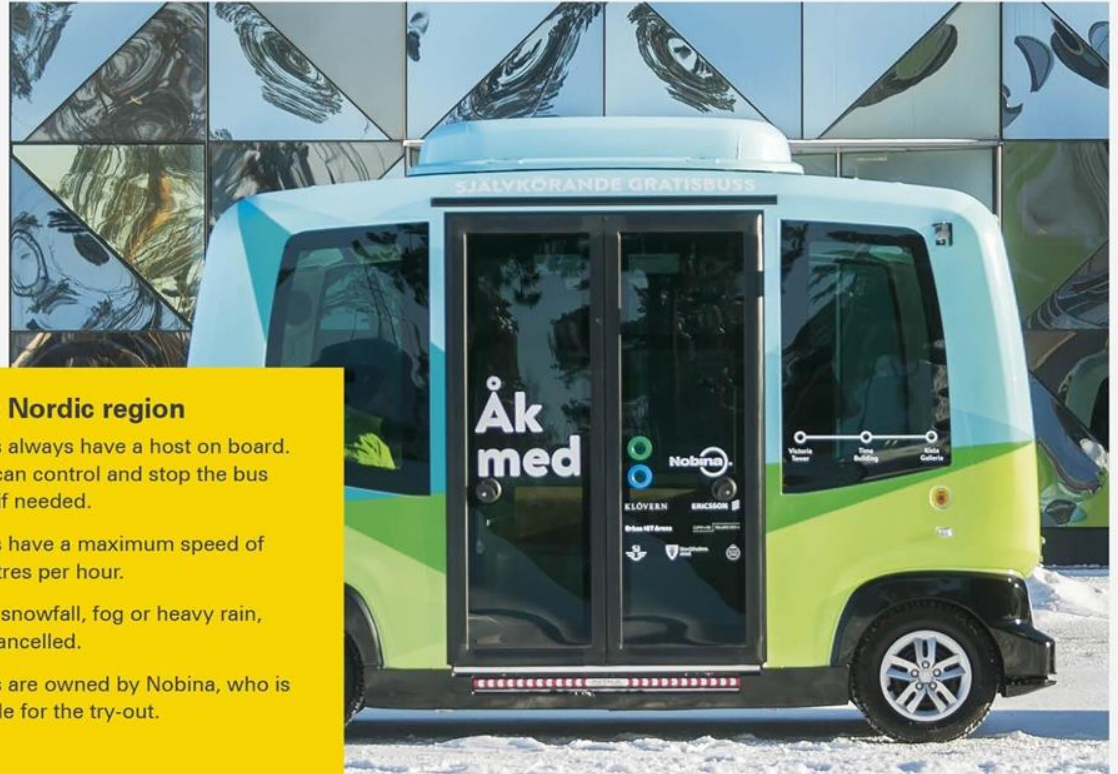
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# TESTING AUTOMATED BUSES on public roads

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## Eight brief facts about the largest trial in the Nordic region

1. The buses follow a virtual rail that is recorded in advance. They are controlled with laser radar and have satellite-based positioning systems.
2. If someone or something risks colliding with the buses, they stop.
3. The buses run on electricity from renewable energy sources.
4. They have room for eleven passengers (six of whom are seated) and a host.
5. The buses always have a host on board. The host can control and stop the bus manually if needed.
6. The buses have a maximum speed of 20 kilometres per hour.
7. In case of snowfall, fog or heavy rain, traffic is cancelled.
8. The buses are owned by Nobina, who is responsible for the try-out.



# SHARED MOBILITY

Creating creative and sustainable mobile services

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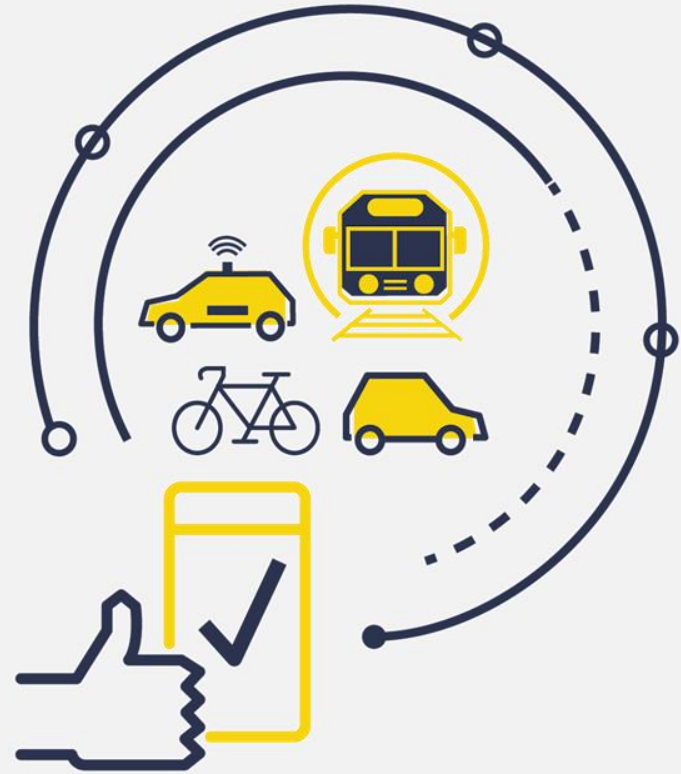


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# ATTRACTIVE AND SUSTAINABLE urban mobility

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# COMBINED MOBILITY in small towns and rural areas

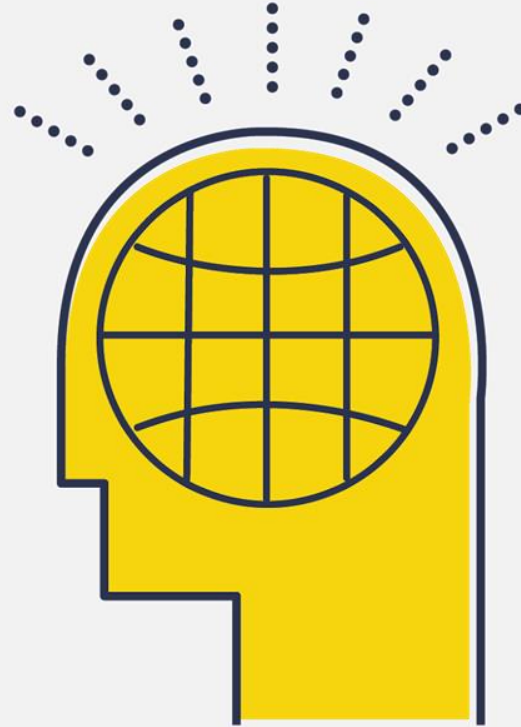
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# GETTING INSPIRED

by the start-up scene

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# MAKE WAY for the intelligent movement company

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# A CAR MADE OF composite materials

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# ELECTRIC WORK VEHICLES developed in Sweden

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## SMART CITY SWEDEN

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Depending on your needs, Smart City Sweden can offer relevant services to learn more about smart and sustainable city solutions from Sweden.

Get in touch with us to book a study visit or training course for more in depth knowledge and direct experience of solutions to your local urban challenges



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Thank you for your attention!