

THE VOLVO GROUP

Sustainable Transport Solutions for the World

Volvo Buses, part of the Volvo Group, is a leader in the development of sustainable people transport solutions and is among the world's largest manufacturers of premium buses, coaches and bus chassis. Volvo Buses is active in more than 85 countries, with more than 6,000 dedicated employees and 1,500 dealers and service centres. Having been in Singapore for over 40 years, the company continues to drive industries and societies forward through innovative solutions that improve individual lives and cities.



STEERING THE VOLVO WAY

Volvo Buses adopts a holistic approach towards reducing climate impact, using resources and conducting business responsibly. The Volvo Group is committed to supporting the Paris Agreement to limit global warming by 2050. Volvo has also been developing a range of sustainable carbon-free products and will continuously report CO2 developments according to Science Based Targets initiative (SBTi) and conduct regular LCAs (Life Cycle Assessments) for their products.

As of late, Volvo Buses plans to

- Reach net-zero value chain emissions by 2040
- Reduce Green-House Gas (GHG) emissions from its vehicles by 40%
- Reduce emissions from internal operations by 50%
- Track actual CO2 emissions from its vehicles in 2023

MERGING SUSTAINABILITY INTO THE BUSINESS

Volvo Buses is driven by their mission to generate prosperity through transport and infrastructure solutions to provide sustainable transport solutions and shape the future of the industry and society. The company believes that it is their responsibility to provide sustainable products, with minimum impact on the environment, and responsible use of energy and natural resources. Since public transport plays a key role in growing sustainable cities, Volvo Buses strives to help create cities of the future through its range of electrified products (hybrid and full electric).

Tapping into modern infrastructure

In 2021, Volvo Group established Volvo Energy (a new business area) to accelerate its sustainability journey. The initiative includes the development of charging and infrastructure solutions to the refurbishing, re-using and recycling state-of-the-art bat-

teries that will power its products. In doing so, the Volvo group remains conscious of its impact and will tap on its large network of partners and experts to ensure that the life cycle of goods and their end-to-end supply chain remain sustainable.

Educating the team

All employees in the Volvo receive regular trainings on integrating sustainability in different platforms and forums - covering updated product offerings, electromobility understanding, vehicle life cycle assessment, sharing on best practices from different countries and markets etc.

The Volvo Environment Prize

Environmental Care is one of the Volvo Group's core values and ties in naturally with its sustainability goals. To explicate this, the Volvo Environment Prize awarded by an independent foundation was instituted in 1988 and awarded annually to individuals who have made outstanding scientific discoveries in environment and sustainable development. The prize has since become one of the world's most prestigious environmental scientific prizes.

REINVENTING THE WHEEL

Technological innovation drives the Volvo's sustainability agenda. Automation, electromobility and connectivity remain imperative to Volvo as it continues to improve the reliability and performance of its goods as sustainable solutions for its customers.

Automation and EV

As early as 2005, Volvo Buses developed Hybrid solutions and later introduced both Electric Hybrid and Full Electric vehicles. The company also conducts autonomous vehicle tests. In selected cases, the company also automates the entire flow of goods or processes, introducing autonomous, connected and electric solutions to lower operational cost, reduce CO2 emissions and create safer working conditions. Pro-

ductivity, efficiency and sustainability continue to shape the future of transportation and infrastructure at Volvo.

THE END-TO-END PROCESS

Volvo Buses ensures responsible practices internally and across the entire value chain. Delivering total solutions requires an understanding of the customer's business, deep industry knowledge and the ability to analyze different parts of the value chain. The company is also a leading end-to-end integrator and offers easy-to-integrate products and services, serving customers in an extended ecosystem.

Value chain partnerships

Value chain partnerships have assisted Volvo in becoming a leader in innovation, automation and electromobility. The company has open and transparent dialogues with stakeholders by hosting and participating in conferences, seminars and discussions to understand the expectations, directions and requirements of creating responsible value chains. Volvo also shares and updates relevant stakeholders on its latest innovation, technology and best practices followed in different countries. Between 2015 to 2020, 1,260 activities in production have collectively saved 207 GWh annually.



BEING A PLAYER IN SINGAPORE

In Singapore, Volvo Buses is working with The Land Transport Authority, The International Association of Public Transport (UITP), private bus customers, public bus operators and institutions to drive sustainability. In 2019, the Volvo Group collaborated with NTU and introduced the world's 1st 12-meter full autonomous electric bus.

Here is a rundown of some of the Volvo Buses' contributions to Singapore:

- Introduced the 1st Euro 6 double deck bus in 2017
- Launched the 1st diesel electric hybrid bus in 2018
- Launched the world's 1st 12 meter fully autonomous electric bus in 2019.
- introduce the Volvo electric low floor city bus in 2022
- Introduced the 1st self-charging electric hybrid (Volvo B5LH) bus together with LTA

Aligning to the Singapore Green Plan 2030

Volvo Buses' strategy and initiatives indirectly align with the Singapore Green Plan 2030. Volvo Buses Singapore joined the Singapore Low Carbon Network (SLCN), a platform that brings together companies and organizations with the ambition to decarbonize and create a sustainable future for Singapore. The Group is trying to play an active part in the SG green plan 2030 by implementing solar panels on-site to generate clean energy. The company is also on-track to introducing its full electric low floor bus chassis for public transportation which will help move people in a safer, more reliable and efficient manner.

The demand for "zero emission" vehicles is increasing globally. This large shift from fossil fuel-based products to zero emission products is no longer optional. The Volvo Group believes that there is a correlation between its sustainability efforts and financial performance and is ready to take part and deliver such products and systems to PTAs/PTO's in many transport authorities and operators' markets. By having the Group's automation, connected vehicles and electromobility products available now, it is in a strong position to partner with many cities to offer sustainable transport solutions contributing to financial performance.



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