

Transport



Image: Swedish Institute

A new era of mobility

Motorised land, sea, and air transport is still heavily reliant on internal combustion engines. Transport accounts for more than a third of CO2 emissions from end-use sectors, but the solutions needed to transform the sector are already available.

Sustainable transport development is defined by Sustainable Development Goal 11 and is a critical part of making societies equitable and accessible. Transitioning to carbon-free solutions will reduce overall emissions and help countries meet transport goals while also improving access to mobility for all.

Sweden has set a goal to be fossil fuel-free by 2045, and it's world-leading automotive sector is critical to the transition. Industry trailblazers are advancing solutions in safety, automation, alternatives fuels, and e-mobility.



Photo: Scania

Sweden's Transport sector

Sweden's transport sector is driven by innovation and collaboration, connecting local, regional, and global partners to accelerate commercially viable electrification solutions to meet climate goals.

The transport sector in Sweden is continuing its long history of industry disruption, leading the world in safety and sustainability innovations.

The transport transition is supported by cross industry innovation including green steel, new material development, and enabling digital technologies.

- Sweden is home to around 17 test beds focusing on road safety, autonomous driving simulation, components testing, digital tech and monitoring (AI, IoT, lidar), battery development and hybrid systems
- Sweden's automotive industry's export value is SEK 219 billion, which accounted for nearly 14% of total Swedish goods exported in 2022
- Automotive disruptors Einride have created world-leading digital, electric, and autonomous shipping technology
- Stockholm's public transport network is primarily powered by low-carbon energy: 85% of the commuter and underground rail networks are electric while buses are largely powered by biofuels
- Candela, a Swedish startup, is responsible for developing and launching the world's first electric passenger hydrofoil ferry, cutting route times and emissions



Transport sector actors

Sweden's transport and automotive sector is a vibrant and open ecosystem where Swedish and international actors collaborate in research and development hubs and across the production process.

Startups, scaleups, and global players are clustered across the country, with a focus on automotive safety, autonomous mobility, and sustainable and alternative fuels.

Below are a few key players in Sweden's transport sector, read more about them and other companies in the comprehensive Company Directory file found on [Sharing Sweden](#).



Photo: AutoLiv

AutoLiv

A global leader in automotive and mobility safety systems including airbags, seatbelts, and steering wheels for all major automotive manufacturers.



Photo: Candela

Candela

Hydrofoil electric boat and ferry innovators, in 2024 they launched the world's first electric hydrofoil ferry line using a silent, fast, and zero-emission vessel.

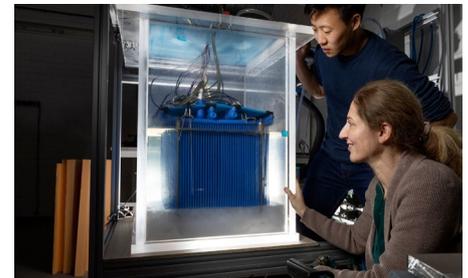


Photo: Sofia Sabel / imagebank.sweden.se

Chalmers University of Technology

A world-leading academic and research institute working collaboratively with industry to develop knowledge to meet transport-related challenges.



Photo: Einride

Einride

An industry disruptor developing electric and autonomous heavy-duty transportation systems technology that is purpose-built for the industry.



Photo: Scania

Scania

An industry leader in transport solutions including trucks, buses and coaches, power solutions, and autonomous mining technology.

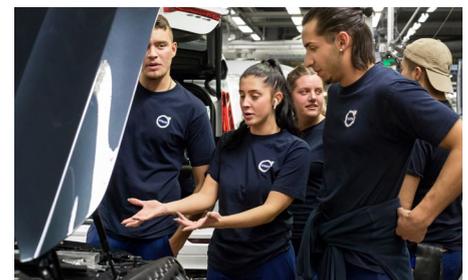


Photo: Sofia Sabel / imagebank.sweden.se

Volvo

Volvo Cars and Volvo Group are two separate companies, both at the forefront of electric mobility solutions, automation, and safety within the automotive industry.



Milestones in Sweden's transport and automotive industry

1891

→ Vabis, known as Scania from 1957, is founded

1927

→ Volvo founded with an initial focus on truck production

1937

→ Saab founded as an aeroplane manufacturer, adding cars a few years later

1953

→ Autoliv starts operations in Sweden developing their automotive safety solutions including seat belts and airbags

1959

→ Volvo introduces the three-point seatbelt, developed by Swedish engineer Nils Bohlin. The invention is made free for all car manufacturers to use

1972

→ Volvo Cars made their first environmental declaration, acknowledging that their products had a negative environmental impact and committed to challenging this

1976

→ Volvo Cars introduce the Lambda sensor(R), reducing tailpipe emissions by up to 90%, it remains integral to all modern petrol-powered cars

1991

- Sweden is one of the first countries in the world to introduce a carbon dioxide tax
- Volvo Cars launched the world's first car free of ozone-depleting chlorofluorocarbons (CFC)

1992

→ Volvo presents a hybrid concept car, some 20 years later, the first hybrid electric Volvo cars are sold

2008

- Volvo Group sells its first hybrid electric heavy vehicles (city buses and refuse collection trucks)
- Volvo Cars switched all European manufacturing to renewable hydropower electricity



2015

- Volvo Group comprises several brands including: Volvo, Volvo Penta, UD, Terex Trucks, Renault Trucks, Prevost, Nova Bus and Mack

2016

- Einride is founded, specialising in electric and autonomous freight solutions

- Fossil Free Sweden, an initiative of the Swedish Government launched ahead of the UN climate conference in Paris, setting Sweden's goal to be the first OECD fossil fuel-free nation by 2045
- Volvo's first fully electric bus enters service

2017

- Northvolt established, making it one of the largest ever investments in Sweden
- Altris, Sweden's leading sodium-ion battery technology developer founded

2020

- Scania launched their first commercially available fully electric truck

2021

- Chalmers University of Technology and RISE commence construction of Sweden's electromobility test centre: Swedish Electric Transport Laboratory (SEEL) with three plants in Gothenburg, Nykvarn, and Borås

2022

- Scania, launches a new heavy truck battery and combined with Foria and Ragn-Sells launching an initiative to accelerate electrified emission-free, heavy road transport
- Scania, together with SCA, develop the world's first electric timber truck with a capacity of 80 tonnes
- Serial production of Volvo's heavy-duty electric trucks begins

2023

- SEEL, the Swedish Electric Transport Laboratory opens with industry, institutes and academia able to test new technologies and safety required by new electrified transport

2024

- Candela launch the world's first electric hydrofoil passenger ferry in Stockholm



FAQ

Where are the main automotive clusters in Sweden?

Gothenburg is the largest cluster in the automotive industry employing around 40,000 people and 98 per cent of the country's passenger car industry and 50 per cent of the country's truck industry located there. There are also clusters in Småland, the Mälars region and a minor cluster around Umeå.

What is the size of Sweden's transport sector?

Sweden has the ninth largest transport workforce in the EU as of 2020. In 2022, Sweden had the fourth highest new registrations of plug-in electric cars. The water transport industry revenues reached USD 2.2 billion in 2022 with a projection of a rise to USD 2.6 billion and be maintained at around the same level until 2025.

Where are the test beds and what are they focused on?

Vinnova, Sweden's innovation agency provides a complete list of current transport test beds and their area of testing. The information can be found here.

[View website](#)

What are Sweden's transport sustainability targets?

Sweden has a goal to be fossil fuel-free by 2045, this includes emissions from transport.

What areas of transport R&D are being prioritised in Sweden?

Sweden's transport R&D covers mobility, electromobility, autonomous vehicles including cars, trucks, and buses, industrial transport solutions for industries including agriculture and mining, and a range of safety and connected systems.

Does Sweden manufacture vehicles?

Yes. Volvo, Scania, Saab, and Polestar are just a few companies who manufacture passenger cars and heavy vehicles in Sweden.

What electromobility companies are based in Sweden?

Progressive Swedish electromobility brands including Volvo Cars, the Volvo Group, Polestar, Einride, Heart Aerospace, Stena Line, CEVT and Novo Energy, and are all headquartered and/or operate important R&D sites in Sweden.

How is Sweden helping other countries transform their transport systems?

Sweden has been a critical partner with large scale transport infrastructure investments in West Africa, India, Australia, and across Europe.



About Sweden

In global rankings, Sweden consistently ranks as a sustainability, innovation, and equality leader.

1st

Global sustainability competitiveness index

[View ranking](#)

2nd

Most innovative economy

[View ranking](#)

2nd

Annual glass ceiling index

[View ranking](#)

Innovation and sustainability credentials

- Sweden aims to run 100% fossil fuel-free energy by 2045
- Sweden is supporting industrial decarbonisation and is home to one of the first major projects for hydrogen-based steel production
- The Swedish government has a target to reduce transport emissions by 70% from 2010 to 2030 and is supporting transport decarbonisation through electrification and biofuels
- Two Swedish companies have developed carbon-free steel. Stegra (formerly H2Steel) and Hybrit, a collaboration between mining company LKAB, energy company Vattenfall, and steel company SSAB
- Ultra-low carbon, 100% circular cement has been developed and piloted by Swedish company Cemvision
- Automotive disruptor Einride have created world-leading digital, electric, and autonomous shipping technology
- Stockholm's public transport network is primarily powered by low-carbon energy: 85% of the commuter and underground rail networks are electric while buses are largely powered by biofuels
- Candela, a Swedish startup, is responsible for developing and launching the world's first electric passenger hydrofoil ferry, cutting route times and emissions
- Sweden has exceptional grid competency with continue investment to meet ongoing demand. Between 2024-2033 approximately 1,500 km of new transmission power lines and 30 new substations will be installed and renewal of over 2,500 km of power lines and about half of the existing 200 substations will be carried out by Svenska kraftnät

A long history of sustainability leadership and action

- Sweden was the first country to pass an environmental protection act in 1967
- Sweden hosted the first UN conference on the global environment in 1972
- In 1991, Sweden was one of the first countries to introduce a carbon tax, and in parallel continued to grow GDP at a strong rate
- Sweden has an ambitious goal of becoming the first fossil fuel-free OECD nation by 2045
- In 2024, Sweden announced it's position as The Climate Matchmaker, matching climate challenges with solutions across local and regional value chains



Photo: Niclas Vestefjell / imagebank.sweden.se



Sweden's support ecosystem

Sweden's support systems provide Swedish and international companies with information and connections to financial support, research and development opportunities, and strategic and practical trade and investment advice.

Here are some of the actors within Sweden's support system.

Financial

Swedish Energy Agency

[Visit website](#)

Vinnova

[Visit website](#)

Almi Invest

[Visit website](#)

Tillväxtverket

[Visit website](#)

Industrifonden

[Visit website](#)

Research and incubation

RISE

[Visit website](#)

Base Batteries Sweden

[Visit website](#)

SISP

[Visit website](#)

Ignite

[Visit website](#)

KTH Royal Institute of Technology

[Visit website](#)

Lund University

[Visit website](#)

KAW

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Invest and export

Business Sweden

[Visit website](#)

Almi Invest

[Visit website](#)

Swedish Energy Agency

[Visit website](#)



Photo: Henrik Trygg / imagebank.sweden.se



Team Sweden

Team Sweden is a network of government agencies and other actors primarily focussed on promoting Swedish exports and investments in Sweden. The aim of Team Sweden is to strengthen collaboration and efficiencies based on each organisation's expertise and resources, through working groups that cross sectors, regions, and countries.

Swedish Institute

The Swedish Institute is a public agency that builds interest and trust in Sweden around the world. They work with Sweden promotion, cooperation in the Baltic Sea region, and global development.

Media Assets

Find all assets related to the Swedish Institute at sharingsweden.se

Sweden on social media





Almi

Almi Invest makes investments in the early stages of a startup. When the entrepreneurs want to raise capital to develop their business, Almi quickly assesses whether venture capital is the best option or if they should be funded directly.

[Visit website](#)

Business Sweden

Business Sweden is jointly owned by the Swedish state and the Swedish business sector with a mandate and mission to help international companies gain access to the Swedish market and help domestic ones utilise it as a platform for expansion.

[Visit website](#)

Embassies

Sweden has diplomatic relations with almost all States in the world. It has embassies and consulates in around half of these. Sweden's foreign representation consists of approximately 100 missions abroad and 350 honorary consulates. Embassies provide information about travelling or moving to Sweden, as well as information about doing business with or in Sweden.

Enterprise Europe Network

The Enterprise Europe Network (EEN) helps businesses innovate and grow on an international scale. It is the world's largest support network for small and medium-sized enterprises (SMEs) with international ambitions. The Network is active worldwide, bringing together experts from member organisations that are renowned for their excellence in business support.

[Visit website](#)

Export Credit Agency (EKN)

EKN (Export Credit Agency) is both a business partner and government authority tasked with promoting Swedish exports and the internationalisation of Swedish companies, by insuring companies and banks against the risk of not getting paid.

[Visit website](#)

Regional investment promotion partners

Sweden's regional investment promotion partners help international companies invest, establish, and expand in Sweden. They offer services on a local, regional, and national level to identify business opportunities. There are 18 regional partners across Sweden.

Swedish Agency for Economic and Regional Growth (Tillväxtverket)

The Swedish Agency for Economic and Regional Growth (Tillväxtverket) is a government agency under the Ministry of Climate and Enterprise. The agency works across three policy areas: enterprise policy, regional development policy, and rural policy. One of their primary tasks is helping to ensure that EU funds are invested in projects that promote regional growth and employment.

[Visit website](#)



Swedish Chambers of Commerce

The Swedish Chamber of Commerce has offices in many countries worldwide. They offer guidance for doing business in Sweden, which rules and agreements are in place as well as general information about Swedish business.

[Visit website](#)

Swedish Energy Agency (Energimyndigheten)

The Swedish Energy Agency (Energimyndigheten) works with the promotion of energy efficiency measures and investments in renewable energy technologies. They are responsible for leading society's transition to a sustainable energy system.

[Visit website](#)

Swedish Export Credit Corporation (SEK)

The Swedish Export Credit Corporation (SEK) is a state-owned organisation that finances Swedish exporters, their subcontractors, and international customers. They strengthen the competitiveness of Swedish exports, with a vision to make the world more sustainable through increased Swedish exports.

[Visit website](#)

Swedfund

Swedfund is the development finance institution of the Swedish state, with a mission to combat poverty by investing in and developing sustainable business in the world's most challenging markets. They work in combination with business, organisations, and authorities across the entire investment cycle.

[Visit website](#)

Vinnova

Vinnova is Sweden's innovation agency, with a goal to open the way for innovation that provides sustainable solutions and strengthens Swedish competitiveness. They support collaborations and provide funding for projects that bring together cross-sector and cross-boundary partners.

[Visit website](#)