DigiTech



Digitalisation powering a green future

Digital technology is enabling industry, societies, and governments to advance what and how they produce, how resources and materials are used, and how social systems are planned and delivered to meet population and environmental demands.

Sustainable digitalisation intersects across all Sustainable Development Goals, with the need to develop and implement solutions for food production, green energy, healthcare, education, manufacturing, and infrastructure.

Sweden is a highly digitalised nation combining advanced R&D test beds and scientific research with industry leadership that advances practical application. Sweden boasts a digitally advanced population and leadership that fosters industrial and society transformation.





Sweden's DigiTech sector

Sweden is a world-leading digitalisation nation, with a vibrant start up scene, innovation clusters, and industry collaborations progressing sustainable solutions for a connected, low-carbon future.

Digitalisation is a core component of Sweden's economy, society, and industrial sectors, with a focus on developing solutions that are inclusive, sustainable, and future proof.

- → Sweden has more than 30 test beds focusing on artificial intelligence (AI), Internet of Things (IoT), 5G/6G, gamification, IT security, factory connectivity, cloud computing, mobility tech, advanced robotics and remote learning with a heavy focus on solutions that meet the global climate goals
- → In 2023, Swedish tech companies produced and sold goods and services worth more than SEK 1,000 billion
- → Energy, transport, and health attracted the most VC investments in Sweden in 2024 with energy attracting USD 986.6 million
- → Sweden is home to over 30 data centres that are powered by sustainable energy and feed excess heat back into the district heating system
- → By 2045, Sweden's target is to have 100 per cent sustainable energy production - which will power sustainable use and application of AI intelligence and an overall sustainable digital transition

DigiTech sector actors

Sweden's tech ecosystem combines local and global talent and companies that are exploring and applying technology to transform production processes, accelerate applied research, and advance industry innovation.

Academia and civil society work together with industry to incubate and co-innovate solutions for real-world problems. Sweden is home to some of the world's leading tech unicorns.

Below are a few key players in Sweden's digital technology sector, read more about them and other companies in the comprehensive Company Directory found on <u>Sharing Sweden</u>.



Photo: Unsplash



Photo: Ericsson



Photo: Unsplash

Drivec

A transport industry tech innovator developing and providing vehicle data that increases profitability, enhances safety, and reduces environmental impact of transport fleets.

Ericsson

A global telecommunications giant challenging the ICT sector to embrace circularity in product development and manufacturing and sustainable connectivity.

Hexagon

Specialists in digital solutions for manufacturing, construction, and geospatial industries, Hexagon provides software, hardware, and services to optimise processes and improve productivity.



Photo: Photo: Lieselotte van der Meijs / imagebank.sweden.se

Photo: Unsplash

Photo: Per Pixel Petersson / imagebank.sweden.se

Klarna

A fintech leader and provider of smarter and more flexible shopping and purchase experiences to 85 million active consumers across more than 575,000 merchants in 26 countries.

Normative

A carbon accounting platform, offering scientific, comprehensive, and actionable emissions insights. Normative provides major enterprises around the world with complete emissions visibility.

Swedish Incubators & Science Parks (SISP)

Incubators and science parks accelerate economic and societal growth in Sweden through world-class business development and networks – and are home to 5,000 innovative and deeptech companies.

Milestones in Sweden's digital technology journey

→ Ericsson is founded, manufacturing and supplying some of the first telephones and managing networks

1876

1950

1962

1971

1984

1993

1990s

1998

2001

2003

→ Ericsson develop the coordinate switch system for automatic telephone exchanges

> → The first modem using telephone lines made commercially available, with a transmission speed of 300 bit/s

→ Televerket (now known as Telia) abolishes the monopoly on mobile (radio) terminals

→ The very first Swedish network is connected to the Internet by Ulf Bilting at Chalmers University of Technology

→ Lysator, the computer club at Linköping University, becomes the first in Sweden to create a web page

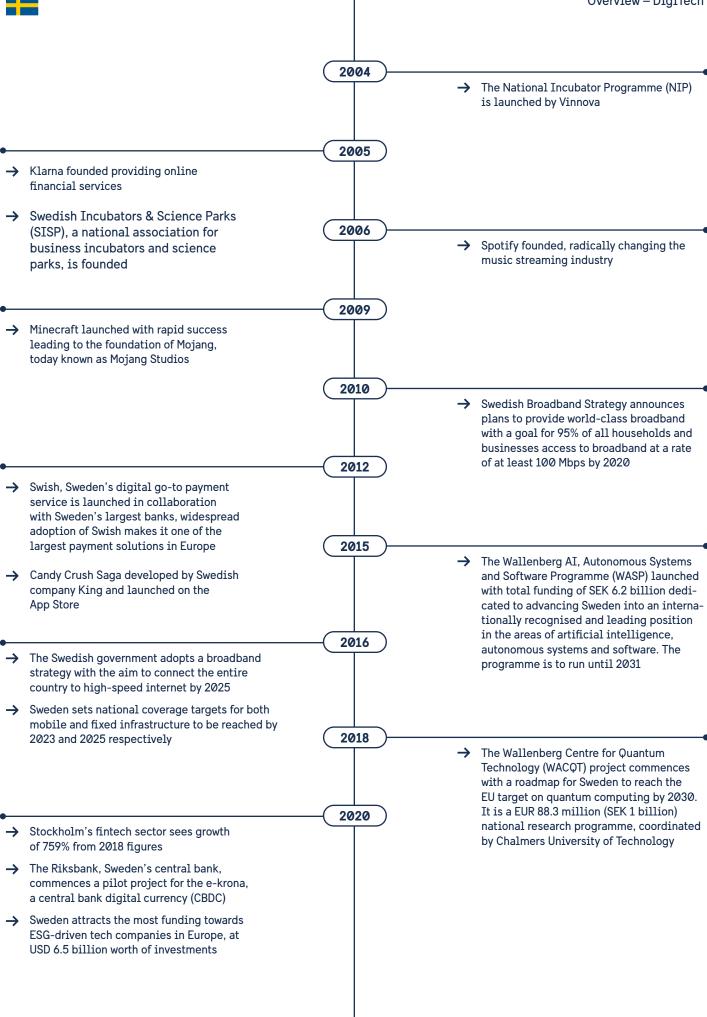
> → The Swedish government launches a developed broadband network providing Swedes with early access to fast internet

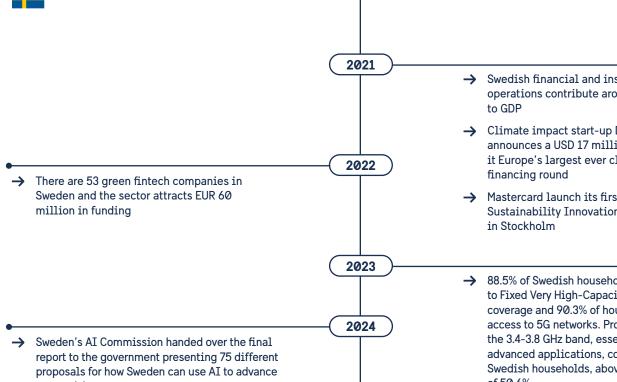
→ One million Swedes are given their first home computer through the government funded PC-Reform programme. The goal is to increase computer literacy in the general population

> → Vinnova, a public authority working to mobilise and support actors in the innovation system is launched. The agency encourages knowledge exchange, individual mobility and skill development, and shares methods for social change towards sustainable objectives

→ Skype Communications founded by Niklas Zennström, from Sweden, and Janus Friis, from Denmark

→ BankID launched providing a simple and secure way for individuals to digitally identify themselves with public and private organisations for government e-services, online banking, signing documents, and making secure payments at e-commerce stores





- competitiveness
- → Sweden is selected to host one of seven European AI Factories aimed at strengthening the EU's competitiveness. The National Academic Infrastructure for Supercomputing in Sweden (NAISS) will be responsible for the AI Factory, with Linköping University acting as host and RISE as collaboration partner
- AI Sweden receives almost SEK 47 million from the Swedish Agency for Economic and Regional Growth to accelerate the use of AI in Swedish innovation environments and companies

- → Swedish financial and insurance operations contribute around 3.9% in total
- → Climate impact start-up Doconomy announces a USD 17 million round, making it Europe's largest ever climate fintech
- Mastercard launch its first ever Global Sustainability Innovation Lab, based
- 88.5% of Swedish households have access to Fixed Very High-Capacity Network (VHCN) coverage and 90.3% of households have access to 5G networks. Provision of 5G in the 3.4-3.8 GHz band, essential to enable advanced applications, covers 64.5% of Swedish households, above the EU average of 50.6%
- Sweden is named as the new location for New European Supercomputer, Arrhenius. Linköping University (LiU) selected by the European High Performance Computing Joint Undertaking to host and operate the world-class mid-range supercomputer
- → Linköping Science Park launches the 'Digital Competence for Business Competitiveness' to strengthen SMEs in the tech and manufacturing industries
- Sweden sets up an AI Commission to identify priorities to ensure that Sweden can exploit the opportunities AI can bring
- → Sweden is one of the first nations to introduce a digital ID card, used the BankID security log-in system which has over 8 million users
- Sweden's climate tech sector attracts substantial funding with energy receiving USD 7.4 billion in venture funding, transport attracting USD 4.6 billion, and industry USD 2.9 billion.
- → AI Sweden release the first large Nordic language model, GPT-SW3. Developed by AI Sweden in collaboration with WASP and RISE, GPT-SW3 is specifically developed for Swedish and Nordic languages



FAQ

Where are the main technology clusters in Sweden?	Technology and digitalisation have become business as usual in Sweden, so there are no dedicated clusters. However, Stockholm has emerged as a technology hub, with a vibrant and innovative startup and scaleup scene.
	Across Sweden there are 30 science parks and 31 incubators offering dynamic and stimulating environments for entrepreneurs, companies, and investors to exchange knowledge, ideas, and creativity. SISP (Swedish Incubators & Science Parks are a core part of the tech innovation scene.
What has investment from WASP been allocated to?	The Wallenberg AI, Autonomous Systems and Software Programme (WASP) has a total of SEK 6.2 billion in funding dedicated to research and development to position Sweden as a leading AI research nation. This will include examining 600 PhD students, working with over 80 organisations establishing at least 80 research groups. The programme works with partners including Chalmers University of Technology, Linköping University, Lund University, KTH Royal Institue of Technology, and Umeå University
What percentage of GDP does Sweden's tech sector account for?	In 2022, the tech industry accounted for 7.9% of GDP and this is expected to increase to between 8.6% and 9.2% in 2026.
How many unicorns has Sweden produced?	Sweden has successfully produced 41 unicorn startups, each of which is worth over USD 1 billion. In 2023, Swedish startups drew in an additional EUR 4.7 billion in venture capital investments. Sweden ranks third in Europe for investments in deep tech investments and second place for impact investments in 2023.
How many people work in Sweden's technology sector?	Figures from 2022 show that 266,000 people are employed in more than 58,000 tech companies – an increase in 33,000 people in three years. This does not account for people employed in technical roles in companies that do not define as tech.
What is the value of Sweden's digital technology sector?	In 2022, the industry's GDP contribution/value added was SEK 346 billion.
Where are Sweden's innovation test beds and what are they focused on?	Vinnova, Sweden's innovation agency provides a complete list of current test beds and their area of testing. The information can be found here:
	<u>View website</u>

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

Sweden's tech R&D is focused on solutions that meet cross-industry global sustainability targets. Agencies including RISE and Vinnova and leading academic institutions are using advanced AI and machine learning on projects covering a multitude of areas including renewable energy storage and distribution, automated vehicles, urban development, preventative healthcare, and circular economy.

How many data centres does Sweden have?

As of 2024, there are 30 data centres in Sweden operated by 17 providers. The sector was valued at USD 1.40 billion in 2022 and is expected to reach USD 2.61 billion by 2028, growing at a CAGR of 10.85%.

What support is available for tech innovation?

There are several public funding programmes and research and development initiatives. The Swedish government has implemented various funding programmes to encourage startups and research and through Vinnova, the Swedish Innovation Agency, financial support is available. Sweden has a highly ranked National Incubator Programme (NIP). Launched in 2004, the programme provides startups support and assistance liek resources, networks, and capital to help scale up their operations. Supporting over 30 regional innovation environments across the country, it is run together with SISP and Vinnova.

Academic institutions like the Royal Institute of Technology (KTH) and Chalmers University of Technology collaborate with industry leaders to advance innovation.





About Sweden

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

1st

2nd

2nd

Global sustainability competitiveness index

View ranking

Most innovative economy

View ranking

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 compentency 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



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

Visit website

Invest and export

Business Sweden

Visit website

Almi Invest

Visit website

Swedish Energy Agency

Visit website





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.









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 finding for projects that bring together cross-sector and cross-boundary partners.

Visit website