



PHOTO: OCELLA LARSSON/IMAGEBANK SWEDEN/SE

Sweden is a world leader in managing household waste – 99 percent of refuse is either recycled or used to generate energy.

## SUSTAINABLE LIVING:

# Living for the future

The core principle of sustainable development is that members of one generation should act to conserve resources for future generations. For most Swedes today, sustainability is a way of life.

Sweden ranks first in the EU in consumption of organic foods, leads the way in recycling drinks cans and bottles, and gets the highest share of its energy from renewable sources. What's more, Swedish fashion retailer H&M is a world leader in using organic cotton and the government has allocated SEK 400 million for research and development of environment technology.

### Green Swedes

In Europe, where the organic food market is growing by 5-7 percent a year, Sweden ranks at the top of the green shoppers list.

A study by the European Commission found

that 40 percent of Swedes had purchased an eco-labeled item in the past month, which is more often than the European average.

In recent years, more stores with organic apparel have opened while established brands have started to use organic fabrics in their collections. According to the organization Textile Exchange, H&M is the world's largest user of organic cotton.

### Vintage fashion

The secondhand clothing market, both in stores and online, is also growing. Vintage fashion is so popular that even established chains are selling second-hand items. Swedish clothing company Weekday sells vintage pieces alongside new apparel, as does fashion store Grandpa. Sweden's first and only vintage clothing fair, Vintage-mässan, started in Stockholm in 2008,

and now attracts more than 6,000 people every year.

### Recycling leader

Swedes were more conscientious about recycling beverage containers in 2010 than ever before. The target of including 90 percent of all aluminum cans and PET bottles in the recycling system is close to being reached, today hitting about 88 percent.

According to recent statistics from Swedish recycling company Returpack, Swedes returned an average of 146 cans and bottles per person for deposit. In recent years, Returpack has introduced a number of measures to get people to recycle more, including doubling the deposit on containers and innovative advertising campaigns, such as Pantamera.

<http://hit.pantamera.nu/>

PHOTO: GREEN FURNITURE SWEDEN



Recycled materials can even become furniture.

**LEARN MORE****Swedish Environmental Protection Agency**

As the national agency for environmental protection and nature conservation, as well as for outdoor recreation and hunting issues, the agency's key tasks are to present proposals for environmental policy and legislation to the Swedish government and ensure that environmental policy decisions are implemented.

[www.naturvardsverket.se](http://www.naturvardsverket.se)

**Swedish Society for Nature Conservation**

A non-profit organization that raises awareness, tracks environmental threats, designs solutions and lobbies politicians and government authorities, both in Sweden and internationally.

[www.naturskyddsforeningen.se](http://www.naturskyddsforeningen.se)

**World Wide Fund for Nature (WWF)**

WWF Sweden's goal is to establish the country as a leading exporter of climate-friendly energy solutions.

[www.wwf.se](http://www.wwf.se)

**Formas**

A government agency that provides funding in the fields of the environment, agricultural nutrients and spatial planning. It promotes environmentally sustainable growth and development in society, cross-sectoral and interdisciplinary research, and international research cooperation.

[www.formas.se](http://www.formas.se)

**Stockholm Environment Institute**

An independent international research institute specializing in sustainable development and environmental issues.

[www.sei.se](http://www.sei.se)

**Mistra**

The Mistra foundation supports research into environmental issues that contribute to a sustainable society. Mistra invests around SEK 200 million in research each year. To learn more, watch the web film *Towards a Closed Steel Eco Cycle*:

<http://bit.ly/uLVjB3>

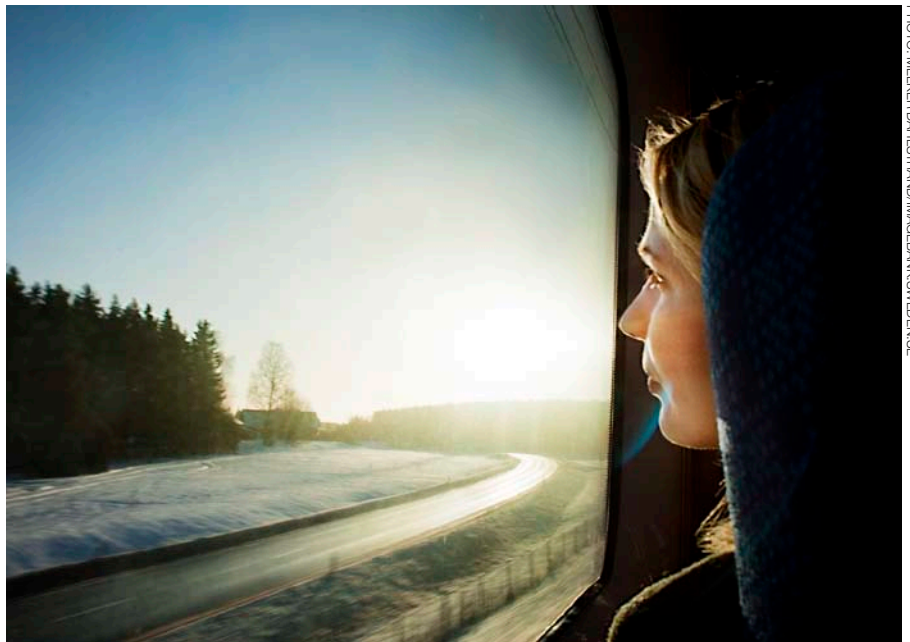


PHOTO: MELKER DAHLSTRAND/IMAGEBANK SWEDEN SE

Advanced technology can increase use of renewable energy in the transportation sector.

## Investing in green technology

In 2011, the government presented a new environmental technology strategy to establish favorable conditions for the growth and development of environmental technology companies. It had three main objectives:

- promote the export of Swedish environmental technology and thus contribute to sustainable economic growth in Sweden and globally
- promote research and innovation in environmental technology and create the conditions required for green

technology companies to flourish in Sweden

- make it easier to commercialize innovations.

The strategy is backed by SEK 400 million (USD 69 million, EUR 46 million) in total funding with SEK 100 million allocated each year from 2011 to 2014. Sweden's environmental technology sector employs roughly 40,000 people and has revenues of about SEK 120 billion, according to Statistics Sweden and the then Swedish Environmental Technology Council. ■

## Research into sustainability

**Chalmers University of Technology**

Several departments focus on environmental science but the scope of the issues means that almost all of Chalmers is committed to environmental questions.

The Alliance for Global Sustainability (AGS) is an international partnership between Chalmers University of Technology, Massachusetts Institute of Technology, the University of

Tokyo and ETH Zürich. It aims to promote R&D into complex global issues focused on environmental science and sustainable development.

[www.chalmers.se](http://www.chalmers.se)

**KTH, Royal Institute of Technology**  
KTH is one of Europe's leading technological institutes for education and research in the field of the environment and

sustainable development. The university has appointed a vice-president for sustainable development and a new environmental director.

With a budget of SEK 8 million, a number of strategic hires and the new KTH Sustainability Council, this effort constitutes the largest investment in environmental studies in KTH's history.

[www.kth.se](http://www.kth.se)

**IN BRIEF**

**SYMBIO CITY**

SymbioCity serves as a trademark administered by the Swedish Trade Council. The organization focuses on finding potential synergies in urban functions and unlocking their efficiency and profitability.

[www.symbiocity.org](http://www.symbiocity.org)

**SKOGSMULLE**

Over the years, around two million children in Sweden have encountered Skogsmulle, a character developed in 1957 by Friluftsrådet (The Swedish outdoor association). Skogsmulle helps children aged 4 to 6 learn to appreciate and care for nature.

Instruction is either adapted to pre-schools or taught in extra-curricular activities.

The concept is popular abroad and today it's even bigger in Japan than in Sweden.

ILLUSTRATION:  
FRILUFTSRÅDET



**COMPETING IN SUSTAINABILITY**

Sustainergies is a Swedish non-profit organization started in 2009 that brings students together with companies and organizations to work with sustainability and corporate social responsibility. In the Sustainergies Cup students compete to solve real-life problems for their partners from the private sector. Some 914 students from 137 institutions of higher education signed up for the Sustainergies Cup 2011; in two months more than 20 countries submitted close to 80 solutions. Read about the winning entries at

[http://sustainergies.se/eng\\_cup](http://sustainergies.se/eng_cup)

**TIDYING UP**

Keep Sweden Tidy is a foundation that works to reduce littering, promote recycling and increase environmental awareness to contribute to sustainable development. Each year, National Litter Pick-Up Days are arranged for everyone who wants to take action against littering and clean up.

[www.keepswedentidy.org](http://www.keepswedentidy.org)



PHOTO: SWECO

Plantagon greenhouses are built to reduce the environmental impact of food production.

## Sustainable cities of the future

Sweden's architects, construction firms, energy companies, city planners, enterprises and politicians are working today to create the sustainable cities of tomorrow. Here are just a few examples:

**Energy supply**

There are many private initiatives to save energy. The Lindell family were test pilots in the project "One Tonne Life." The goal was to create a way of living in which carbon dioxide emissions would be reduced to one metric ton per person a year. With an environmentally designed timber house, an electric car and a whole range of experts to help them, the family almost succeeded in achieving the goal, going from 7.3 metric tons per person a year to 1.5 tons.

<http://onetonnelife.com/>

**Vertical greenhouses**

Award-winning Swedish company Plantagon works with urban agriculture and specializes in what is known as vertical cultivation. Plantagon's vertical greenhouses minimize the need for energy, water and pesticides. Plans are underway to build vertical greenhouses in Linköping and Botkyrka, south of Stockholm. The idea is that the buildings will contribute to a climate-smart solution to the world's future demands for food.

[www.plantagon.com](http://www.plantagon.com)

**Airport City Stockholm**

By 2022, a completely new city will have grown up around Stockholm Arlanda Airport. The goal is to create an environ-

mental technology center to bring together research, innovation and established companies in the field of sustainability and environmental technology. The environmental profile of this new district is based on the extensive climate work already being carried out at Arlanda. Since 2004, greenhouse gas emissions from the airport have been reduced by more than half through a number of measures, including the world's largest aquifer or water storage unit to provide the airport with heating and cooling.

[www.arlandastad.se](http://www.arlandastad.se)

**Malmö**

Malmö has already created two world-leading examples of sustainable building. Booi is a constructed district that unites modern architecture with ecological sustainability, while Ekostaden Augustenborg is one of the largest investments in Europe in the ecological conversion of an existing residential area. The municipality continues to launch new environmental districts. Hyllie will be developed into the Öresund region's most climate-smart district. Its energy supply will consist of 100 percent renewable or recovered energy by 2020.

[www.malmo.se](http://www.malmo.se)

**SUSTAINABLE  
TRANSPORTATION****ON YOUR BIKE**

In 2011, the Swedish government appointed a special investigator to review regulations that affect cycling. In addition, the Swedish Transport Agency in cooperation with other government agencies has been assigned to develop an action plan to increase cycling. Malmö was named Cycling Promotion City of the Year by the Swedish cycling organization Cykelfrämjandet. One out of four trips in Malmö is by bike.

**ELECTRIC TRAINS**

Trains run by SJ, the government-owned train operator, are powered by electricity. For its trains in Sweden SJ buys only renewable electricity from hydropower or wind power. This means that the production of electricity for trains causes minimal emissions. All trips using SJ's electric trains meet the Swedish Society for Nature Conservation's requirements for "Good Environmental Choice," the organization's most stringent eco-label.

**722,000 TRAVEL WITH SL**

Stockholm Public Transport (SL) operates the city's subway, buses, trams and commuter trains. New trams that SL purchases are at least 98 percent recyclable. The entire subway system runs on green electricity, and since 2009, 28 buses running on biogas and 127 running on ethanol have been added to the fleet of green buses. Some 80 SL buses run on biogas. The target is to have all buses running on renewable, environmentally-friendly fuel by 2025.

**► Hammarby Sjöstad, Stockholm**

Hammarby Sjöstad is Stockholm's largest urban construction project. When completed in 2017, 26,000 people will be living here in 11,500 apartments. The district has been planned using an eco-cycle approach and is intended to showcase ecological and environmentally sensitive construction and living.

[www.hammarbysjostad.se](http://www.hammarbysjostad.se)

**Stockholm Royal Seaport**

Following the success of Hammarby Sjöstad, Stockholm Royal Seaport is now being launched as the next environmental district in the capital and an environmental role model. Some 10,000 homes and 30,000 offices will be built by 2025. The district will be completely free of fossil



PHOTO: OLA ERICSON/IMAGEBANK SWEDEN/SE

The "Hammarby model" has become a tool for environmentally friendly city development around the world.

fuels by 2030 and have a positive impact on the climate.

[www.stockholmroyalseaport.com](http://www.stockholmroyalseaport.com)

## Human-heated buildings

In northern Europe the housing and service sectors account for more than 40 percent of total energy consumption. One way to reduce consumption is to build low-energy residences, passive houses heated mainly by the energy already found there, such as the energy from people's body heat, electrical appliances, lighting and sunlight. Passive houses have been built in a number of communities across Sweden, including Stockholm, Göteborg, Västerås and Helsingborg.

In the fall of 2011, the first Nordic

Ecolabel multi-family residence was inaugurated in Stockholm. The building (with 36 apartments) produces half the carbon dioxide emissions of a regular apartment building.

Seven out of 10 Swedes want to live in an eco-labeled house and would consider paying more for it, according to a survey by construction firm Veidekke.

Read more about the Nordic Ecolabel here:

[www.svanen.se/en](http://www.svanen.se/en)

## Useful links

[www.forskning.se](http://www.forskning.se) Website providing information about research in Sweden

[www.gronabilister.se](http://www.gronabilister.se) The Swedish Association of Green Motorists

[www.malmo.se](http://www.malmo.se) Västra Hamnen

[www.raa.se](http://www.raa.se) The Swedish National Heritage Board

[www.sgbc.se](http://www.sgbc.se) Sweden Green Building Council

[www.svenskamassan.se/en/](http://www.svenskamassan.se/en/) The Stockholm Exhibition

[www.sweden.gov.se](http://www.sweden.gov.se) The Ministry of the Environment

[www.vinnova.se](http://www.vinnova.se) The Swedish Agency for Innovation Systems

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[www.sweden.se](http://www.sweden.se)

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