

[eInclusion in]

Sweden

Sverige



ICT & Ageing

Geographic Digital Divide

eAccessibility

eInclusion

Cultural Diversity

Inclusive eGovernment

Digital Literacy & Competences

Country Profile

History

Strategy

Legal Framework

Actors

Who's Who

Areas

The Future of eInclusion

What's Inside

Contents:

Country Profile	1
eInclusion History	3
eInclusion Strategy	7
eInclusion Legal Framework	9
eInclusion Actors	11
eInclusion Who's Who.....	13
eInclusion Areas.....	16
The Future of eInclusion	22

Disclaimer:

This document is not intended to be exhaustive. Its purpose is to give an overview of the general eInclusion status in Sweden. Even though every care has been taken to ensure accuracy, the information herein should be treated as indicative and no responsibility for errors can be assumed. Neither the European Commission, nor any person acting on its behalf can be held responsible for the use that could be made of the information provided.

Country Profile

Basic data and indicators

Basic Data

Population (1 000): 9 340.7 inhabitants (2010)

GDP at market prices: 292 680.4 million Euro (2009)

GDP per inhabitant in PPS (Purchasing Power Standards, EU-27 = 100): 120.0 (2009)

GDP growth rate: -5.1 % (2009)

Inflation rate: 1.9 % (2009)

Unemployment rate: 18.3 % (2009)

Government debt/GDP: 42.3 % (2009)

Public balance (government deficit or surplus/GDP): -0.5 % (2009)

Source: [Eurostat](#)

Area: 449 964 km²

Capital city: Stockholm

Official EU language: Swedish

Currency: Krona

Source: [Europa website](#)

Information Society Indicators

Percentage of households with Internet access: 86 % (2009)

Percentage of households with broadband connection: 79 % (2009)

Percentage of individuals regularly using the Internet: 86 % (2009)

Percentage of individuals using the Internet for uploading self-created content: 15 % (2008)

Percentage of individuals using the Internet for reading online newspapers/magazines: 50 % (2009)

Percentage of individuals using the Internet for finding information about goods and services: 77 % (2009)

Percentage of individuals using the Internet for seeking health-related information: 36 % (2009)

Percentage of individuals using the Internet for looking for a job or sending a job application: 22 % (2009)

Percentage of individuals using the Internet for doing an online course: 4 % (2009)

Percentage of individuals using the Internet for seeking information with the purpose of learning: 37 % (2009)

Percentage of individuals using the Internet for interaction with public authorities: obtaining information 48.2 %, downloading forms 33.5 %, returning filled forms 31 % (2009)

Source: [Eurostat](#)

Editorial notice: Statistical indicators referenced in this section reflect those of Eurostat at the time the Edition is being prepared.

eInclusion History

Main developments and key milestones (in reverse chronological order)

For the latest developments, see: [ePractice news for eInclusion](#)

Recent News

October 2010

- ▶ On 5 October 2010, Prime Minister Fredrik Reinfeldt appointed Anna-Karin Hatt as the new Minister for Information Technology and Regional Affairs. Infrastructure and responsibility for coordination of issues relating to the use of ICT are placed under the ministry's authority. In Ms Hatt's first key speech since taking office, she announced at the Internetdagarna Conference that Sweden will adopt a **national digital agenda** during 2011.

The [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS), the government agency that oversees, controls and regulates IT services, has been working to ensure that the objectives of the [Broadband strategy for Sweden](#) (*Bredbandsstrategi för Sverige*) are achieved. This involves activities relating to promotion and advice, monitoring and supervision. With a view to enabling the government to supervise its work on measures for the broadband strategy document, PTS has reported on its work in the form of two progress reports in May and October 2010. The latest report includes further elaboration on how the measures taken by PTS are progressing.

- ▶ In the same month, the Swedish Agency for Disability Policy Coordination (*Myndigheten för handikappolitisk*, HANDISAM) is assigned by the government to put forward a future structure for monitoring **eAccessibility**.

The [eGovernment Delegation](#) (*E-delegationen*) began revising in October the [Swedish National Guidelines for Public Sector Websites](#) to take **WCAG 2.0** (Web Content Accessibility Guidelines) into account. The goal is to present new guidelines in June 2011.

June 2010

- ▶ On 15 June 2010, the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) published the fact sheet [Accessible communications for everyone - regardless of functional capacity](#), which contains information on its current **eAccessibility** projects and future initiatives. PTS is also carrying out pilot projects for the development of new services.
- ▶ Linköping hosted the [Summer Event 2010 of the Knowledge Society Forum](#) on 9-11 June. The event addressed how ICT is a basic necessity when planning and building inclusive, sustainable and desirable societies. Topics included poverty and digital exclusion, inclusion and ICT, the elderly and ICT.

March 2010

The government presented a follow-up to ['From patient to citizen' - a national action plan for disability policy](#) (*Från patient till medborgare - en nationell handlingsplan för handikappolitiken*), and announced the basis for a future strategy beginning in 2011. New objectives in different areas were set out, with **ICT policy** being a priority area.

February 2010

The [broadband survey 2009](#) conducted by the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) was made public. The survey shows that coverage is excellent, but that the actual

speed experienced by end users differs among various parts of the country, and that it cannot cope with increased demand for capacity. This vulnerability is most noticeable for households and businesses in less commercially attractive parts of the country (i.e. rural areas). An extensive backhaul infrastructure is also required. Lack of capacity threatens to give rise to a digital divide. This divide would provide a challenge for the everyday life of rural inhabitants and decrease their opportunities to earn a living. It is seen that numerous **barriers** can limit the real potential to obtain broadband access, which underscores that concerted effort is still needed in order to secure world-class broadband for all.

News 2009 and before

2009

- ▶ The [Equality Ombudsman](#) was formed on *1 January 2009* when the four previous anti-discrimination ombudsmen were merged into a new body. It is a government agency that works against discrimination on grounds of ethnicity, religion or other belief, disability or age, and for equal rights and opportunities for everyone. Its vision is a society where respect for citizens' equal value and rights is an entitlement and not a privilege.
- ▶ On *6 November 2009*, the [Broadband strategy for Sweden](#) was published. The overall objective of this strategy is to have **world-class broadband**. By 2020, 90 % of households and businesses are targeted to have access to broadband at a rate of at least 100 Mbps, and ample opportunities to use electronic public services and other services via broadband.
- ▶ In *August 2009*, the [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk*, HANDISAM), in response to a government remit, submitted material for an **action plan relating to eInclusion**.
- ▶ In *March 2009*, the [eGovernment Delegation](#) (*E-delegationen*) was established to strengthen the development of eGovernment and create opportunities for inter-agency coordination. One of its starting points was that eGovernment should be characterised by accessibility and usability.

2008

In *October 2008*, the government tasked the [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk*, HANDISAM) to submit material towards the adoption of an action plan on eInclusion.

2007

- ▶ In *2007*, the [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk*, HANDISAM) issued the '[Guidelines for Accessibility - Break the Barriers](#)' (*Riv hindren - Riktlinjer för tillgänglighet*), which contained **eAccessibility provisions** for websites and online services. It stressed the need for people with disabilities to be able to communicate with and gain access to public information via the Internet. It expanded upon the '[Guidelines for an accessible public administration](#)' issued in 2003.
- ▶ In *March 2007*, the [Swedish Governmental Agency for Innovations Systems](#) (*Verket för innovationssystem*, VINNOVA) launched a programme to study the needs of the elderly. The outcomes constituted the basis for an upcoming programme on innovations of new products and services for older people.

2006

- ▶ In *July 2006*, the newly-designed official websites of the government and the government offices (www.regeringen.se, www.sweden.gov.se) were launched. The new **disability-friendly** design was a result of systematic efforts to improve the accessibility and usability of public web services.
- ▶ The government set up a standard where **public authority websites** offered equal opportunity use for all citizens. On *1 January 2006*, the [Swedish Administrative Development Agency](#) (*Verket för förvaltnings-utveckling*, VERVA) came into force to promote and coordinate such an action in line with national guidelines (WAI guidelines for accessibility of websites).

The [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk, HANDISAM*), a government authority with the mission to promote and coordinate the realisation of a **disability policy**, was established on *1 January 2006*.

2005

- ▶ In *April 2005*, the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) initiated the 'Pocket Interpreter' project jointly with the Interpreter Centre in Örebro. The aim of the project was to develop technology and methodologies to receive and deal with 3G calls in the existing communications service environment. Distance interpretation and call communication using 3G provided deaf people with a greater opportunity to communicate with able-bodied persons regardless of location, and reduced dependency on physical access to a sign language interpreter. The project came to an end in 2006.
- ▶ The Government bill '[From an IT policy for society to a policy for the information society](#)', which was adopted on *25 January 2005*, was the government's proposal for a **new ICT policy**, aimed at enabling the country to reclaim its position as a global information society leader. It drew up guidelines for an ICT policy and identified measures for people with disabilities. Furthermore, it focused on the deployment of broadband, principally in remote and rural areas.

2003

- ▶ In *2003*, the [Office of the Disability Ombudsman](#) (*Diskrimineringsombudsmannen*, HO) issued the '[Guidelines for an accessible public administration](#)' which contained strategies for the public authorities in their work towards becoming **accessible for all**. Websites and online services in general should be designed in such a way that they comply with WAI measures for making websites accessible to people with disabilities.

In the same year, the [Swedish National Audit Office](#) (*Riksrevisionen*, SNAO), responsible for auditing the activities of the government and promoting the optimum use of resources and efficient administration, carried out an assessment of public websites. No websites met international recommendations and requirements, even though the accessibility rating varied extensively. It recommended that the needs of all users be given higher priority in the development of the public electronic administration.

2001

In *2001*, the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) was mandated by the government to perform tests regarding disabled users' access to telecom products and services that demanded broadband and high speed access. The following seven trials were conducted:

- ▶ broadband for people who are deaf-blind (service centre);
- ▶ broadband for people with intellectual impairments (daily information and communication);
- ▶ broadband for people with visual impairments and with reading disabilities (distribution of digital talking books to students in higher education);

- ▶ mobile broadband for people with disabilities (sign language);
- ▶ distance education for people with mild aphasia;
- ▶ distance education in sign language via broadband; and,
- ▶ 'Winning Communication' (labour market guidance by distance).

2000

- ▶ In *2000*, the Government bill '**An information society for all**' (*Ett informationssamhälle för alla*) set out Sweden's goal to become an information society, with an emphasis on building confidence, developing competence and providing access to new ICTs. It laid down the principles and targets which formed the basis of the Swedish ICT policy until 2005. It proposed that the government should focus on increasing the accessibility of the information society's services, especially in rural areas. It also envisaged Sweden, as one of the world's leading IT nations, with the aim to be the first country to become an information society accessible to everyone.
- ▶ In *March 2000*, the government introduced the '[From patient to citizen - a national action plan for disability policy](#)' (*Från patient till medborgare - en nationell handlingsplan för handikappolitiken*). The document proposed national goals focused on the **inclusion of the disabled** in all facets of society through accessibility means. The action plan served as the main reference point for the [Decree on the Government Authorities' Responsibility for the Implementation of Disability Policies](#), which went on to establish the principle of eAccessibility for public websites and various related initiatives.

1997

The first set of comprehensive guidelines for an **accessible Web** was published by the Swedish Handicap Institute (present-day [Swedish Institute of Assistive Technology](#), *Hjälpmiddelsinstitutet*, SIAT) in *1997*. Educational materials on its website were also published during the year. The guidelines were later harmonised with WAI standards and later absorbed into the Swedish National Guidelines for public sector websites.

1996

In *August 1996*, the government commissioned the Swedish Handicap Institute (present-day [Swedish Institute of Assistive Technology](#), *Hjälpmiddelsinstitutet*, SIAT), a national knowledge centre for assistive technology and accessibility for persons with disabilities, to develop a programme of **ICT-based measures** aimed at people with disabilities and the elderly.

eInclusion Strategy

Main strategic objectives and principles

National Strategy for Broadband

The overarching objective of the [Broadband strategy for Sweden](#) (*Bredbandsstrategi för Sverige*) is to have **world-class broadband** in order to meet the challenges of growth, competitiveness and innovation.

The policy document outlines two key broadband targets for all households and businesses:

- ▶ 90 % access to broadband at a minimum speed of 100 Mbps in 2020;
- ▶ 40 % access to broadband at 100 Mbps by 2015.

To achieve the targets and provide the necessary conditions to deliver services and to invest in broadband throughout the country, the government proposed initiatives in several areas. These include:

- ▶ promoting investments in broadband in more remote areas;
- ▶ improving the prospects of people with disabilities, and their ability to independently cope with daily living;
- ▶ creating opportunities to improve the service provided to people who need adapted solutions and advanced services;
- ▶ tackling concerns of an ageing population in a scarcely populated country.

National Action Plan for Disability

['From patient to citizen' - a national action plan for disability policy](#) (*Från patient till medborgare - en nationell handlingsplan för handikappolitiken*) is the key document in disability policy until the end of 2010. It covers all sectors of society and shows disability policy to be intersectoral in nature, and involves identifying and **removing barriers** to participation. The action plan allows for people with disabilities to be seen in a new light. That is, the disabled should not be regarded as subjects/patients, but as citizens with rights and obligations like the rest of the population.

The main national objectives are:

- ▶ a social community based on diversity;
- ▶ a society designed to allow people with disabilities of all ages full participation in community life;
- ▶ equal opportunities for children and adults with disabilities.

Work on disability policy must focus on the following tasks, in particular:

- ▶ identify and remove ICT obstacles for full participation in society for the disabled;
- ▶ prevent and combat IT discrimination against the disabled;
- ▶ make it possible for all age groups with disabilities to lead independent lives through ICT means.

eInclusion Policy Preparation

The [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk, HANDISAM*) is mandated with laying the groundwork for an action plan on eInclusion. As a first step, in early 2009, it issued the interim report [Mapping of initiatives for eInclusion in Europe and Sweden](#) (*Kartläggning över initiativ för eInkludering i EU och Sverige*). It provided an overview of initiatives underway within the EU (i2010) to achieve eInclusion, and identified **initiatives at national level impacting eInclusion**.

With ICT evolving so rapidly, usability and accessibility requirements must shift towards public interest at large rather than the needs of the disabled strictly. By identifying and addressing wide-ranging barriers to ICT at the development stage, more people can benefit from such technologies. This disability perspective widens target groups and will serve as a starting point also for achieving eInclusion.

The following recommendations were set forth on what an action plan for eInclusion should contain:

- ▶ **Access to ICT** - The need for excellent infrastructure is a requirement for eInclusion, and necessitates political will and vision to create suitable conditions. Impact assessments related to the development of vital public online services, have to be carried out.
- ▶ **Research, Development and Innovation** - Research funding schemes and resources are available at EU and national levels to reduce the exclusion of ICT for certain groups. However, at present, an overall picture is lacking with respect to R&D in progress and its outcomes. The [Swedish Governmental Agency for Innovations Systems](#) (*Verket för innovationssystem*, VINNOVA) has an important role to play in coordinating the EU and national efforts. This can be achieved by further investigating the synergies between various initiatives and development projects, and by examining the status and issues arising from EU funding tools by Swedish stakeholders. The harmonisation of given resources can lead to innovation programmes in ICT usability and accessibility.

In mid-2009, the [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk, HANDISAM*) followed up the interim report with '[Right from the start](#)' - a basis for an action plan for eInclusion (*Rätt från början - underlag till handlingsplan för inkludering*). It outlined the coordination activities and the implementation procedures for the proposed eInclusion strategy document.

The action plan contained proposals for action in the following strategic areas:

Access to ICT

- ▶ The relevant agency should create and maintain a database on ICT usage.
- ▶ Explore the socio-economic aspects of access to ICT with regards to its provision, social service benefits and assistive technologies.

Accessible ICT

- ▶ Ensure that usability and accessibility form the basis for the establishment of a national interoperability framework.
- ▶ Ensure public web sites are WCAG 2.0 (Web Content Accessibility Guidelines) compliant.
- ▶ The relevant agency should report to the government authority on how its activities are to make demands on usability and accessibility in procurement, to participate in the development of a new European standard for the procurement of accessible ICT.
- ▶ Examine good practice for eGovernment towards the creation of an inclusive eGovernment model.
- ▶ The agencies concerned are to develop guidelines for an effective and accessible digital work environment.

Digital literacy

- ▶ Set up a government committee to initially identify the efforts of digital literacy and competencies, and then propose a national strategy for digital literacy.

R&D

- ▶ Harmonise the various eInclusion channels and actors, and stress the importance of financial assistance at national level.
- ▶ Task the [Swedish Governmental Agency for Innovations Systems](#) (*Verket för innovationssystem*, VINNOVA) and the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) with exploring synergies in eInclusion R&D, and also provide stakeholder support for EU application processes.

eInclusion Legal Framework

Main legal texts impacting on the development of eInclusion

eAccessibility Legislation

There are various constitutional and other provisions against discrimination. According to the study '[Measuring Progress of eAccessibility in Europe - MeAC](#)', none specifically reference eAccessibility, but they do set the standards defining how society should work against discrimination of persons on the ground of disability, including discrimination related to eAccessibility issues. The MeAC study states that the final report of the Committee of Inquiry ([SOU 2006:22](#)) is a commitment to **coherent disability legislation**. Legislation based on this document is expected to provide improved conditions for disabled people relating to eAccessibility.

[Health and Medical Services Act](#) (1982:763)

According to the Act which includes amendments up to [SFS 2002:163](#), counties and municipalities are obligated to provide the disabled with **assistive devices**. There is no right of appeal to a court authority against decisions on assistive devices. Local governments may adopt their own regulations for assistive devices, so as to determine which products are regarded as assistive and what the cost will be. As a result, the provision of assistive devices largely depends on where a potential recipient lives.

[Social Services Act](#) (2001:453)

The Act contains certain elements that strengthen the overall support for disabled people with respect to accessibility of services on equal terms as the rest of the population, including ICT-related services.

[Discrimination Act](#) (SFS 2008:567)

The purpose of the new Discrimination Act, which entered into force on 1 January 2009, is to promote equal rights and opportunities regardless of disability. There are plans to amend the Act so as to comprise accessibility as well. The government intends to present proposals during 2010.

[Occupationally Disabled Persons \(Special Measures\) Ordinance](#) (2000:630)

The Ordinance sets out responsibilities for providing assistive technology. There are grants available to employers and/or employees that cover the full and half costs, depending on the conditions. Free training on how to use ICT-related assistive technology is also provided.

eCommunications Legislation

The Swedish disability policy within the area of electronic communications is based on public procurement of products and services with the vision that all citizens should have access to efficient, inexpensive and secure communication.

[Electronic Communications Act](#) (2003:389)

Chapter 5, Section 1 of the Electronic Communications Act states that operators must provide access for people with disabilities to **universal service** on equivalent terms as other end users, and meet their needs for such special services. The national regulatory agency, [Swedish Post and Telecom Agency](#) (*Post- och Telestyrelsen*, PTS), is authorised to lay down regulations on how telecommunications operators should meet their obligations with respect to special needs groups.

The PTS strategy for services to people with disabilities involves consultation with market players on the possibilities of offering tailored services to people with special needs. Where necessary, the handling of telecommunications services for disabled persons is put out to tender. 'Operators' not only refers to telecommunications operators, but also to call centres, interpretation centres, or other service providers. As regards equipment, people with disabilities are provided with a range of free assistive devices.

[Ordinance with Instructions for the Postal and Telecommunications Board \(1997:401\)](#)

The Ordinance sets out the responsibility of the [Swedish Post and Telecom Agency](#) (*Post- och Telestyrelsen*, PTS) to meet the electronic communications service needs of disabled persons.

[Decree on the Government Authorities' Responsibility for the Implementation of Disability Policies \(2001:526\)](#)

While there is no direct legislation on the accessibility of websites, the Decree states that government authorities shall especially focus on providing the same accessibility to their web pages and online services as to the rest of the population. It goes on to say that they shall conduct their activities in accordance with the existing disability legislation.

[From an IT policy for society to a policy for the information society \(2004/05:175\)](#)

The Government bill states that certain measures shall be adopted to promote the availability of ICT for the functionally disabled, and outlines various initiatives and priorities to achieve the policy objective for an information society. It stresses the importance of IT in contributing to well-being, and helping to improve and simplify daily life for special needs groups. This entails enabling specific groups, such as people with disabilities and the elderly, to use and to benefit from IT.

Broadcast provisions

According to the study '[Measuring Progress of eAccessibility in Europe - MeAC](#)', no direct legislation exists to ensure that people with disabilities can access and enjoy TV broadcast programmes in the same manner as the rest of the population. A variety of **accessibility provisions** are available however, including assistive devices such as subtitling and sign language interpretation for the hearing impaired and audio description for the visually impaired. To this end, broadcast licences issued by the government may be subject to conditions stipulating that programming is accessible.

The MeAC study goes on to say that broadcast agreements of Sweden's public service broadcaster (*Sveriges Television*, SVT) and the private network TV4 require every effort be made towards accessibility for all target markets, and stipulate subtitling for specific programming. The licence for the Swedish Educational Broadcasting Company (*Sveriges Utbildningsradio*, UR) stipulates that it shall consider the needs of disabled people and substantially increase the amount of subtitling accordingly. There are no specific requirements for audio description, and this has so far been left to the non-commercial, independent public service radio broadcaster Swedish Radio (*Sveriges Radio*, SR). With regard to sign language, the SVT license specifies that the focus of programming for the deaf should be primarily news, information and culture, and that these should be translated into sign language; programmes for children and youth should also be prioritised. There is a proposal to update the Radio and TV legislation to include requirements for providing more audio description for the blind. On the whole, there seems to be no special attention being paid to accessibility in relation to digital TV, though the system for reading out subtitles has been launched.

eInclusion Actors

Main roles and responsibilities

National eInclusion

Policy/Strategy

Ministry of Enterprise, Energy and Communications (*Näringsdepartementet*)

The Ministry is tasked with the overall responsibility for IT and eInclusion policies, as well as issues related to the information society and electronic communications.

Ministry of Health and Social Affairs (*Socialdepartementet*)

The Ministry is responsible for drafting the national disability policy, which aims to remove ICT barriers for full participation in society, and promote customised support and services, such as assistive devices.

Ministry of Education and Research (*Utbildningsdepartementet*)

The Ministry covers the education and research policy areas, and deals with IT and disability issues within these two spheres.

Swedish Post and Telecom Agency (*Post- och telestyrelsen*, PTS), **Ministry of Enterprise, Energy and Communications (*Näringsdepartementet*)**

The national regulatory agency has jointly worked with the Swedish Agency for Disability Policy Coordination (*Myndigheten för handikappolitisk samordning*, HANDISAM) to prepare an action plan for eInclusion. Furthermore, it has been commissioned to act towards the completion of a national disability strategy, in cooperation with other public authorities and government stakeholders.

Swedish Agency for Disability Policy Coordination (*Myndigheten för handikappolitisk samordning*, HANDISAM)

HANDISAM has put forward to the government an interim and final report for an action plan for eInclusion.

Coordination

Swedish Agency for Disability Policy Coordination (*Myndigheten för handikappolitisk samordning*, HANDISAM)

The principal responsibility for matters related to accessibility and disability policy lies with HANDISAM. It coordinates the sectoral authorities tasked with implementing the national plan for disability policy. Furthermore, it coordinates the Swedish EDeAN Network (European Network for the European Design for All eAccessibility), which addresses the digital divide and aims to make society accessible to all.

National Agency for Special Needs Education and Schools (*Specialpedagogiska skolmyndigheten*), **Ministry of Education and Research (*Utbildningsdepartementet*)**

The national authority coordinates government support related to special needs education for children, young people and adults with disabilities. It provides information about different online learning platforms for the disabled through the assistance of ICT.

Implementation

Swedish Post and Telecom Agency (*Post- och telestyrelsen*, PTS), **Ministry of Enterprise, Energy and Communications (*Näringsdepartementet*)**

Within the framework of its operations as well as through special government assignments, PTS aims to ensure that the objectives of the [Broadband strategy for Sweden](#) (*Bredbandsstrategi för Sverige*) are being implemented.

[National Agency for Education](#) (*Skolverket*), [Ministry of Education and Research](#) (*Utbildningsdepartementet*)

The central administrative authority for the public school system implements the goals and guidelines set out by the government on the use of IT in education, organisations and among authorities responsible for schools. Furthermore, it continuously follows up the digital literacy and competencies of students and educators.

Support

[Swedish Institute of Assistive Technology](#) (*Hjälpmiddelsinstitutet, SIAT*), [Ministry of Health and Social Affairs](#) (*Socialdepartementet*)

SIAT is the national resource centre on assistive technology and accessibility for persons with disabilities and the elderly. It works for full participation and equality for persons with disabilities by ensuring access to high-quality assistive technology, an effective provision of assistive devices and an accessible information society. Its activities include R&D, analysis of needs, knowledge and methodology development. It plays a major part in the area of assistive technology, supporting the development and introduction of new products. It houses the largest specialised library in the Nordic region as far as assistive technology and disabilities are concerned.

[Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen, PTS*), [Ministry of Enterprise, Energy and Communications](#) (*Näringsdepartementet*)

PTS monitors the electronic communications sector. It is the authority that oversees accessibility issues for disabled people in the telecommunications area. It has been assigned to promote the rollout of and access to broadband throughout the country. Regulations, laws and ordinances, such as the Electronic Communications Act, serve as the basis for the work of PTS.

eInclusion Who's Who

Main eInclusion decision-makers and executives

Ministers responsible for eInclusion



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eInclusion Areas

Riga Declaration Priorities

ICT & Ageing

Status in ICT & Ageing

According to [ICT & Ageing - European Study on Users, Markets and Technologies](#), 17.4 % of the population are aged 65 years and above. This share is projected to increase to 20.8 % by 2020. A rapidly ageing population requires **ICT solutions** that facilitate daily and independent living for the elderly.

Approximately 50 % of people aged 55 or over cannot use the Internet, and this **low ICT adoption** figure means that a significant part of the population is being excluded from the benefits of the information society.

Source: [Internet Infrastructure Foundation](#)

Actions to support ICT & Ageing

Technology for the elderly

The programme '[Technology for the Elderly](#)' (*Teknik för äldre*) is being coordinated by the [Swedish Institute of Assistive Technology](#) (*Hjälpmedelsinstitutet*, SIAT) during the period 2010–2012, with project support provided by the government. The objective is to test and develop **new technology for the elderly** in their homes. Notable projects include ICT for the Elderly, Internet café as a meeting place for seniors and [ACTION](#) (Assisting Carers using Telematics Interventions to meet Older people's Needs).

SeniorNet

The government-funded [online network community](#) aims to confront the generation gap through the adoption of ICT-based tools. Its objectives are to introduce and promote ICT use among seniors by:

- ▶ building a virtual community of senior citizens interested in ICT as a communication and service tool via the portal;
- ▶ starting and supporting local SeniorNet clubs which act as social learning centres focusing on ICT competence;
- ▶ arranging ICT activities and projects involving senior citizens;
- ▶ promoting the development of user-friendly ICT tools.

Vällingby e-Centre

The goal of the [e-Centre](#) (*e-Centret i Vällingby*) is to provide all residents with an opportunity to take part in the possibilities offered by the information society. Specifically, it intends to demonstrate that disabled people who have limited or no access to ICT, can keep up with digital media developments.

Geographic Digital Divide

Status of Common Access to Electronic Content and Services

At present, the network that reaches most households (98 %) and businesses (95 %) is the fixed telephone network which offers broadband using xDSL technology. Approximately 5 % of the population is unable to obtain a broadband subscription in practice. There is a greater interest in making

investments in **densely populated areas**, while the challenge is greater in the remote parts of the country where conditions for deploying infrastructure and upgrading technology are less favourable.

First in EU broadband usage

Sweden is very well positioned with respect to broadband use and tops the rankings of the EU's [Broadband Performance Index](#), which compares broadband development in the Member States with regard to speed, price, coverage in remote and rural areas, innovations and other socio-economic factors.

Rapid growth in broadband

According to the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) report '[The Swedish Telecommunications Market 2009](#)', mobile broadband subscriptions increased by 50 %, to 1.3 million during 2009.

Actions to support Common Access to Electronic Content and Services

Broadband Strategy

In late-2009, the government decided on a [Broadband strategy for Sweden](#) (*Bredbandsstrategi för Sverige*). The overall objective is to achieve **first-rate broadband**. By 2020, 90 % of households and businesses should have: access to broadband at a rate of, at least, 100 Mbps; sufficient opportunities to use electronic public services and other services via broadband.

IT infrastructure and work on regional growth

In the [National strategy for regional competitiveness, entrepreneurship and employment 2007–2013](#) (*En nationell strategi för regional konkurrenskraft, entreprenörskap och sysselsättning 2007-2013*), the government highlights a **highly-developed information society** as a particularly important action area. The strategy also contains actions to increase access to broadband in remote and rural areas.

Rural Development Programme

As of October 2010, organisations, NGOs and cooperatives, village communities and municipalities can apply for support to roll out broadband via the [Rural Development Programme](#) (*Projektstöd för utveckling av bredband på landsbygden*) and the joint laying grant (funding to lay empty pipes through which fibre can then be drawn). The aim is to **increase availability of broadband in remote areas**, based on local needs, so that everyone has an opportunity to take part in the information society and benefit from commercial and public services. The [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) has received government funding to stimulate the rollout of broadband in rural areas where there is no market penetration.

eAccessibility

Status of eAccessibility

Approximately 1.5 million people, aged 16-84 years, have one or more disabilities. In the 16-64 age group, there are over 1 million, with the remaining 500 000 aged 65-84. Approximately 70 % of assistive devices are prescribed to people over 65. A key priority area for the government concerning the elderly is that they should be allowed to live an active, independent and safe life. Accessibility and accessible environments, products and services constitute a prerequisite for this to be achieved. Health care authorities are required to provide assistive devices, and these services are regulated by the [Health and Medical Services Act](#).

Source: [Swedish National Institute of Public Health](#)

All libraries in Sweden house books in the digital talking book format DAISY (Digital Accessible Information System) for print-disabled users.

Actions towards eAccessibility

eAccessibility guidelines

The [Swedish Agency for Disability Policy Coordination](#) (*Myndigheten för handikappolitisk samordning, HANDISAM*) has issued the document '[Guidelines for Accessibility - Break the Barriers](#)' (*Riv hindren - Riktlinjer för tillgänglighet*) which contains eAccessibility requirements for public authority services and access to electronic information.

Prior to the dissolution of the [Swedish Administrative Development Agency](#) (*Verket för förvaltningsutveckling, VERVA*) on 31 December 2008, it published [guidelines](#) on usability and eAccessibility for public procurements of ICT. The guidelines stressed that increased attention must be given to usability, ergonomics, and accessibility for the disabled. This was to ensure that the procurements contributed to lower user-costs, higher job-satisfaction for employees and facilitate agencies' compliance with the standards set by the Work Environment Act for software and systems. These guidelines worked towards fulfilling the government's overall goal of making all public administration websites accessible to its citizens by 2010, in line with Europe's i2010 initiative.

Special Library for Disability and Assistive Technology

The [Swedish Institute of Assistive Technology](#) (*Hjälpmedelsinstitutet, SIAT*) [Special Library for Disability and Assistive Technology](#) (*Specialbibliotek för funktionshinder och hjälpmedel*) contains the **Nordic region's largest collection of materials on disabilities**, assistive devices and accessibility in print and digital format. The library services are free of charge for all residents of Nordic countries.

ACTION project

[ACTION](#) (Assisting Carers using Telematics Interventions to meet Older people's Needs) is a project that provides caregiver support in sparsely populated areas. Through the use of videophone computers, caregivers for the elderly access an online network of health care personnel and other stakeholders which enables them to share knowledge and experiences with others in similar health conditions.

Audio For All

The [Santa Anna IT Research Institute](#) is carrying out field studies for the project 'Audio For All - Tools for sound-based e-services for elderly and reading-disabled people' commissioned by the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen, PTS*). The aim is to develop, deliver and study effective tools for distribution of sound-based information resources to the elderly and reading-disabled people. It is also investigating the implementation of accessible eServices for the same target group.

PTS eAccessibility fact sheet

The [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen, PTS*) 2010 fact sheet '[Accessible communications for everyone - regardless of functional capacity](#)' (*Tillgänglig kommunikation för alla - oavsett funktionsförmåga*) contains **existing and future initiatives in eAccessibility**.

The following are current projects:

- ▶ [Bildtelefoni.net](#) - Sign language is used to provide interpretation assistance via videophone or 3G telephone for sign language users who want to contact hearing-abled persons and vice versa.
- ▶ [Texttelefoni.se](#) - Is a relay service for phone calls between textphones and standard voice phones that increases the possibility for the deaf, deaf-blind, hearing impaired or speech impaired to communicate with a segment of the population which cannot be reached via textphone.
- ▶ **IT support direct** - Aims to give support over the phone to the elderly and disabled people with computers and mobile phones. The project is funded by the [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen, PTS*) and the Inheritance Fund (*Arvsfonden*).
- ▶ **Fruit Tree** (*Fruktträdet*) - Aims to assist the deaf-blind and people with a severe loss of vision. Through a database network, users can participate in discussion groups, retrieve information and send or receive emails in a way that is easily accessible and adapted to the needs of the user.

- ▶ **Innovations competition** - The [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) holds a competition where new ideas and solutions in electronic communications are presented for people with disabilities. Innovative companies, researchers and organisations can apply for funding to develop services and products.

Research & Grow programme

The [Swedish Governmental Agency for Innovations Systems](#) (*Verket för innovationssystem*, VINNOVA) through its '[Research & Grow](#)' programme (*Forska & Väx*) funded, in 2009, the assistive technology operations of [Tobii Technology](#). The aim is to produce simple, user-friendly communication aids products for young people with special needs. Tobii Technology develops eye-controlled computer systems specifically for disabled people.

The Swedish Library of Talking Books and Braille

The government-funded [Swedish Library of Talking Books and Braille](#) (*Talboks- och punktskriftsbiblioteket*, TPB) provides access to printed materials for the print-disabled in collaboration with local libraries. In addition, it serves as an information resource on talking books and Braille. It has been producing in the Digital Accessible Information System (DAISY) format since 2001.

Digital Literacy and Competences

Status on Digital Literacy and Competences

To date, there is no political proposal for a **national strategy on digital literacy**, nor has there ever been a national long-term strategy for ICT in schools. All public schools now use computers for teaching and the majority benefit from this via broadband, though digital literacy is not part of compulsory education.

Actions towards stimulating Digital Literacy and Competences

The 'Swedish Knowledge Foundation' initiatives

The [Swedish Knowledge Foundation](#) (*KK-stiftelsen*, KKS) began a national drive to address **ICT use in schools** by supporting several related initiatives. It has played an important role as an ICT project initiator and funding tool, including the following projects:

- ▶ '[Learning, Information, Communication and Administration](#)' (*Digital kompetens i lärarutbildningen*, LIKA) is aimed at introducing digital literacy and competencies in courses to strengthen teacher education. It is estimated that approximately 600 teachers and 8 000 teacher trainees, and more than 20 000 teachers in primary and secondary schools will receive such training.
- ▶ The primary objective of '[Competency Development in Teacher Education](#)' (*Kompetensutveckling Lärarutbildning IT*, KompLit) is to increase digital competencies among teacher trainees at the University of Skövde.
- ▶ '[Young Communication](#)' (*Ung kommunikation*) is intended to boost the digital competences among teacher trainers and teacher trainees at universities, and for teachers in primary and secondary schools.
- ▶ '[ICT for Teachers](#)' (*IT för pedagoger*) is a website run by the [National Agency for Education](#) (*Skolverket*). The website acts as a broker for a range of ICT resources and its target users are school teachers and leaders. It provides links to digital learning resources.

eInclusion and Cultural Diversity

Status on eInclusion and Cultural Diversity

Sweden is characterised by multiple ethnic cultures, and this diversity is to a certain extent due to migration in recent decades and increased globalisation. This must be reflected in the online activities of cultural institutions that receive public funding.

Source: [Ministry of Culture](#) (*Kulturdepartementet*)

One of the long-term goals of the government agencies and institutions within the [Ministry of Culture](#) (*Kulturdepartementet*) sphere of responsibility is to **integrate a multicultural perspective in digital form**.

Actions towards eInclusion and Cultural Diversity

Swedish Arts Council

The [Swedish Arts Council](#) (*Kulturrådet*) is a government authority tasked with promoting cultural diversity through digital media and an equal geographical spread in cultural provision.

SameNet

Sámi are an indigenous people who are subject to social and political exclusion, as well as at risk when it comes to the digital divide due to the lack of infrastructures. The online platform [SameNet](#) addresses issues regarding accessibility to technology, and provides a collaborative social networking environment that supports their already existing cultural interactions and democratic structures. Sámi institutions, villages, organisations and private users can have online access as SameNet users, and obtain an email address with the domain name same.net. It provides a foundation to enable the Sámi community to fully participate in developing and implementing the online initiative.

Inclusive eGovernment

Status on Inclusive eGovernment

According to the European Commission 2009 report '[Smarter, Faster, Better eGovernment - 8th Benchmark Measurement](#)', Sweden is a **mature information society** and a leader in most eGovernment benchmarks. It has progressed significantly in the online availability of the 20 basic eGovernment services with a score of 95 % and occupies the fifth rank among the EU27+. In terms of service sophistication, it has achieved 99 % and shares the third rank among the EU27+ with Austria. The report further notes that eGovernment use by businesses has stalled and that the user-friendliness is at EU average.

Actions towards Inclusive eGovernment

Ministerial Declaration on eGovernment

Sweden has approved a new [ministerial declaration on eGovernment](#) until 2015. The vision for the Declaration is to aspire to be a government recognised for being open, flexible and collaborative in its relations with citizens, one which utilises eGovernment services to increase efficiency and effectiveness, and constantly improve them to include all of society.

The Declaration set forth the following policy priorities:

- ▶ empower citizens through the use of eGovernment services designed around their special needs;
- ▶ develop inclusive services that will help to bring down barriers experienced by digitally- or socially-excluded groups.

Government portal

The [official gateway](#) offers information and a full range of electronic services to citizens. It also caters to English speakers who wish to learn more about Sweden. The portal's layout takes into account **disabled and impaired users**.

The Future of eInclusion

Research in Practice & Future Challenges

Research in Practice

The [Seventh Framework Programme](#) (FP7) comprises, under its umbrella, EU research initiatives that play a vital part in attaining the objectives of growth, competitiveness and employment. The broad objectives of FP7 have been grouped into four categories: [Cooperation](#), [Ideas](#), [People](#) and [Capacities](#). eInclusion aspects hold a prominent place in this programme, which has been operational since 2007 and will expire in 2013.

Approximately € 400 million have been allocated to FP7's **Challenge 7: 'ICT for Independent Living, Inclusion and Governance'**, one of the seven 'Challenges' of the [ICT Work Programme](#) 2009 – 2010 under FP7. The aim of 'Challenge 7' is to create ICT products, through research and development, which will foster independent and active living among Europe's ageing population, improving living standards and mitigating ICT complexity in order to encourage groups with special needs to uptake and use ICT tools and technologies to their benefit.

'Challenge 7' set three objectives:

Objective ICT-2009.7.1: [ICT & Ageing](#)

- ▶ Service robotics for ageing well
- ▶ Open Systems Reference Architectures, Standards and ICT Platforms for Ageing Well
- ▶ RTD roadmaps and stakeholder coordination.

Objective ICT-2009.7.2: [Accessible and Assistive ICT](#)

- ▶ Embedded Accessibility of Future ICT
- ▶ ICT restoring and augmenting human capabilities compensating for people with reduced motor functions or disabilities
- ▶ RTD research agendas & coordination of constituencies.

Objective ICT-2009.7.3: [ICT for Governance and Policy Modelling](#)

- ▶ Governance and Participation Toolbox
- ▶ Policy Modelling, Simulation and Visualisation
- ▶ Roadmapping and Networking for 'participation, governance and policy modelling'.

Sweden is involved in the following FP7 projects:

1. [Virtual User Concept for Supporting Inclusive Design of Consumer Products and User Interfaces](#) (VICON)

Research area: ICT-2009.7.2 Accessible and Assistive ICT

Project start date: 1 January 2010

Project end date: 30 June 2012

2. [Open accessibility everywhere: groundwork, infrastructure, standards'](#) (AEGIS)

Research area: ICT-2007.7.2 Accessible and Inclusive ICT

Project start date: 1 September 2008

Project end date: 29 February 2012

3. [Haptic, audio and visual interfaces for maps and location-based services](#) (HAPTIMAP)

Research area: ICT-2007.7.2 Accessible and Inclusive ICT

Project start date: 1 September 2008

Project end date: 31 August 2012

4. [Helping autism diagnosed young people navigate and develop socially](#) (HANDS)

Research area: ICT-2007.7.2 Accessible and Inclusive ICT

Project start date: 1 June 2008

Project end date: 31 May 2011

5. [European ambient assisted living innovation alliance](#) (AALIANCE)

Research area: ICT-2007.7.1 ICT and Ageing

Project start date: 1 January 2008

Project end date: 31 December 2009

6. [Ubiquitous care system to support independent living](#) (CONFIDENCE)

Research area: ICT-2007.7.1 ICT and Ageing

Project start date: 1 February 2008

Project end date: 31 January 2011

National Projects

Assistive Technology in Focus programme

In 2009, the [Swedish Institute of Assistive Technology](#) (*Hjälpmiddelsinstitutet*, SIAT) was tasked with a three-year governmental assignment concerning assistive technologies for persons with psychiatric disabilities. The focus is to facilitate the everyday life for someone who is in need of assistive technology in structuring the day with respect to time, memory and initiative-taking activities. The devices are intended to offer a feeling of security and independence in day-to-day living for the individual and assist in increasing participation in society. The vision is that access to assistive devices should be as optimal for persons with psychiatric disabilities as for other disabled groups.

Digital Social Alarms project

The present-day digital telecom infrastructure is being improved and new technologies for providing secure solutions are emerging. The goal of the [project](#) is to increase the understanding of how the new digital technologies can be used for social alarms, regardless of the service provider, or where the user lives. Social alarms are targeted towards the elderly and people with disabilities, and provide 24-hour emergency support. The project is funded by the Swedish Government during 2010-2013. Large-scale field trials and feasibility studies will be conducted in order to provide a basis for future standardisation, procurement and information on digital social alarms.

Reader development project

The [Swedish Post and Telecom Agency](#) (*Post- och telestyrelsen*, PTS) is funding the 'Reader' (*Läsaren*) development project, which aims to give adults and children with dyslexia or other reading and writing difficulties the opportunity to read with multiple senses. This is accomplished by presenting the content with an optional combination of text, audio and images. The text is highlighted at the same time as it is being read out. It can also display pictures to further enhance the reading experience. The material must be produced according to the Digital Accessible Information System (DAISY) standard. The software can be used on computers, mobile phones and on televisions connected to the Internet.

The technology that enables the software to function is currently being tested in real-life situations. Some of the disability associations are working to adapt it to their target groups. It is also envisaged that public and municipal authorities and county councils will adopt the 'Reader' software.

e-Adept project

The '[e-Adept](#)' project is evaluating opportunities for people with disabilities and the elderly to independently make their way around urban environments using digital maps and GPS technology. The goal is to develop a service capable of guiding users to a particular destination via a mobile phone or handheld computer linked to a GPS and 'gyrocompass'. The e-Adept solution has been successfully tested in Stockholm, among others locations, and further work is ongoing in several municipalities. The intention is to offer this service in most parts of Sweden and possibly even on an international basis.

Future Challenges

The following constitute the most pressing eInclusion issues:

- ▶ strive to achieve an accessible and digitally-literate society that integrates all special needs groups;
- ▶ augment the use of IT throughout society in order to boost competitiveness, growth and innovation, while ensuring sustainable development;
- ▶ work to improve the general level of accessibility within electronic communications in the long term;
- ▶ increase the number of operators and networks offering wireless broadband in rural areas and remote regions.

European Commission - eInclusion Practice

eInclusion practice (epractice.eu) is an information and exchange service for European professionals.

The eInclusion factsheets are one of the epractice.eu services. The factsheets present an overview of the eInclusion status and progress in the European countries.

The eInclusion factsheets are produced and updated once a year.

eInclusion practice is an initiative of the Directorate General for the Information Society and Media, European Commission.

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