

Denmark



ICT & Ageing

Geographic Digital Divide

eAccessibility

eInclusion

Cultural Diversity

Inclusive eGovernment

Digital Literacy & Competences

Country Profile

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Disclaimer:

This document is not intended to be exhaustive. Its purpose is to give an overview of the general eInclusion status in Denmark. 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): 5 534.7 inhabitants (2010)

GDP at market prices: 222 892.9 million Euros (2009)

GDP per inhabitant in PPS (Purchasing Power Standards, EU-27 = 100): 117.0 (2009)

GDP growth rate: -5.2 % (2009)

Inflation rate: 1.1 % (2009)

Unemployment rate: 6.0 % (2009)

Government debt/GDP: 41.4 % (2009)

Public balance (government deficit or surplus/GDP): -2.7 % (2009)

Source: [Eurostat](#)

Area: 43 094 km²

Capital city: Copenhagen

Official EU language: Danish

Currency: Danish krone

Source: [Europa website](#)

Information Society Indicators

Percentage of households with Internet access: 86 % (2010)

Percentage of households with broadband connection: 80 % (2010)

Percentage of individuals regularly using the Internet: 86 % (2010)

Percentage of individuals using the Internet for uploading self-created content: 14 % (2008)

Percentage of individuals using the Internet for reading online newspapers/magazines: 63 % (2010)

Percentage of individuals using the Internet for finding information about goods and services: 78 % (2010)

Percentage of individuals using the Internet for seeking health-related information: 52 % (2010)

Percentage of individuals using the Internet for looking for a job or sending a job application: 29 % (2010)

Percentage of individuals using the Internet for doing an online course: 5 % (2010)

Percentage of individuals using the Internet for seeking information with the purpose of learning: 56 % (2010)

Percentage of individuals using the Internet for interaction with public authorities: obtaining information 68.2 %, downloading forms 38.8 %, returning filled forms 49.6 % (2010)

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

November 2010

The National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA) published '[Broadband Mapping 2010](#)' (*Bredbåndskortlægning 2010*), an overview of broadband coverage and accessibility. An assessment of various connection speeds yielded the following estimations for households/companies:

- ▶ 92 % able to gain access to a broadband connection with a calculated download rate of at least 10 Mbps by mid-2010.
- ▶ 74 % able to gain access to a broadband connection with a calculated download rate of at least 30 Mbps or more by mid-2010.
- ▶ 25 % able to gain access to a broadband connection with a calculated download rate of at least 100 Mbps by mid-2010.

June 2010

- ▶ Denmark ranked second in broadband speed among the Nordic countries, according to the 2010 statistical publication entitled '[Telecommunication Markets in the Nordic Countries 2009](#)'. Following close behind Sweden, Denmark had 12.9 broadband subscriptions per 100 inhabitants with a minimum speed of 10 Mbps. The data showed that the broadband penetration rate in Denmark is the highest among the Nordic countries in terms of fixed subscriptions, as well as for all broadband subscriptions (i.e. mobile broadband).
- ▶ On 1 June 2010, the government issued a fast broadband roll-out target: access to at least 100 Mbps for all Danes by 2020, regardless of location.
- ▶ In June 2010, the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) launched '[Digital Roads to Growth](#)' (*Digitale veje til vækst*), which focused on the digital potential of all Danes, and the use of ICT to overcome challenges, leverage innovation and growth. In addition, it included further initiatives to improve the eAccessibility of public and private services.

May 2010

According to a [survey](#) conducted on behalf of the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) by a consulting firm specialising in IT for the disabled, 52 % of Danish government websites were not fully eAccessible to people with various types of disabilities. A total of 226 government websites were tested, including web pages that were directly covered by the agreement on the mandatory open standards, and a variety of other government websites. Individual pages were tested in terms of compliance with the Web Content Accessibility Guidelines (WCAG) 2.0 Level AA standard and with HTML and Cascading Style Sheets (CSS) standards.

There remains a sizeable number of public websites that are not fully accessible to people with different impairments and disabilities, according to survey. As a result, ministries, regions and municipalities have to make concerted efforts to use IT solutions in order to ensure greater accessibility for all. Furthermore, the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) will launch in 2011 a new eLearning tool that will provide instruction and guidance on how documents and websites can become more accessible. The Ministry has already launched a series of initiatives

designed to support the authorities' efforts to develop and maintain accessible websites, including an information campaign and development of accessibility eLearning. These initiatives will be further evaluated and strengthened so as to achieve maximum benefit for people with disabilities.

April 2010

The government published the '[IT and Telecommunications Policy Report 2010](#)' (*It- og telepolitisk redegørelse 2010*), which took stock of key initiatives and outcomes within the ICT area during 2009, including world-class digital infrastructures, digital skills for the future, and beneficial digital content and new opportunities.

March 2010

The Ministry of Social Affairs (*Socialministeriet*) published '[Using technology! – Opportunities for social services](#)' (*Brug teknologien! – muligheder på det sociale område*), a document intended to encourage municipalities and social services actors to use new technologies. It pointed out that the use of ICT increased quality of life, thereby reducing the prospect of exclusion.

January 2010

- ▶ The Ministry of Social Affairs (*Socialministeriet*), in collaboration with the Ministry of Education (*Undervisningsministeriet*), issued a [study](#) on assistive technology and communications. The report examined assistive technology and communications in relation to recent government reforms.
- ▶ The High Speed Committee (*Højhastighedskomiteen*) delivered its final [report](#), which presented wide-ranging studies on ICT contribution to growth, welfare, productivity and the development of a sustainable society. It clarified how all Danes can obtain the necessary skills to take part in digital development and in the information society overall. The report pointed out that for Denmark to be able to exploit ICT optimally, the continued development of an advanced broadband infrastructure and sustained use of ICT in society were both required. It also put forth the recommendation to intensify international competition, not least from the new knowledge centres in Asia which generate substantial growth rates by means of a very deliberate effort to promote and utilise new technologies. With regards to ICT skills, the report contained several recommendations concerning increased digitalisation of the education sector, including improved infrastructure, increased use of ICT-based teaching material, further integration of ICT in non-ICT specific courses and an intensified effort to upgrade the ICT skills of teachers and students. Regarding the skills of the wider population, it recommended a strengthening of the existing '[Learn More About ICT Network](#)' (*Lær mere om it-netværket*), which is a network comprised of public and private parties with the aim of increasing ICT skills in the adult population. This will be carried out through: development and sharing of training material used nationwide; local training offers for citizens throughout the country by participating partners focused on their respective target groups; and inspiration and knowledge-sharing within the network.

News 2009 and before

2009

- ▶ In *November 2009*, the government, in its efforts to firmly entrench Denmark as one of the most innovative societies in the world, reached agreement on a communications accord with all political parties in order to earmark funds for research, innovation and ICT during 2010-2012.
- ▶ The municipalities are responsible for processing building applications arising from the need to erect new masts for expansion of wireless broadband infrastructures. As such, municipalities greatly influence the speed with which wireless services grow. In *October 2009*, the Minister for Science, Technology and Innovation and the chairman of KL (Local Government Denmark) encouraged the

municipalities to make a concerted effort to provide residents, businesses and public institutions with faster access to mobile broadband within their respective locations.

- ▶ On *29 May 2009*, the Danish Parliament unanimously approved the government's motion to ratify the [Convention on the Rights of Persons with Disabilities](#).
- ▶ In *March 2009*, the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) set up the High Speed Committee (*Højhastighedskomiteen*), tasked with recommending initiatives for the continued development of Denmark as a frontrunner in ICT. As part of the general considerations of how Denmark can best deploy ICT for growth, welfare and increased productivity, the Committee was also asked to come up with proposals on how citizens, businesses and public authorities can gain access to internet speeds which can handle the most advanced broadband services, and how the use of digital solutions can be encouraged.
- ▶ The strategy '[The Danes' IT skills - a focused initiative](#)' (*Danskernes it-færdigheder - en målrettet indsats*), which asserted that ICT was beneficial for all segments of the population, came to an end in *2009*. A total of 17 eLearning modules and the citizens' portal, [borger.dk](#), were developed. The information campaign 'Hit the Keys' (*Til tasterne*) was carried out, aimed at motivating the digitally excluded.

2008

- ▶ On *2 December 2008*, the [Danish Centre for Visually Impaired Children and Youth](#) (*Synscenter Refsnaes*) won the eAccessibility Award at the European e-Inclusion Awards held in Vienna, Austria.
- ▶ In *2008*, the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) embarked upon a number of initiatives intended to improve the accessibility of public websites. One of these initiatives involved the charting of accessibility levels for a number of selected websites. A total of 234 websites were tested in accordance with the Web Content Accessibility Guidelines (WCAG) standard, which was one of the open standards for public authorities that became mandatory as from 1 January 2008. Based on this, a targeted information campaign was launched with a view to improving the accessibility of public websites.

2007

- ▶ The initiatives taken by the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) to ensure better accessibility of public websites were rated among the best in Europe in terms of accessibility out of 150 proposals from all over Europe. The selection was announced at the European Commission Ministerial Debate on e-Inclusion Policy in Lisbon on *2-3 December 2007*. The high ranking acknowledged the government's efforts to ensure equal access for all to the knowledge society and its digital services.
- ▶ The Danish initiative in the area of accessibility meant a reinforcement of the efforts undertaken up to 2007, and included several measures:
 - public websites had to be designed so as to be accessible to all from 2008;
 - the National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA) would strengthen its support in the area;
 - the National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA) would test the accessibility of public websites annually and publish the results online.
- ▶ In *June 2007*, the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) launched a [national strategy for e-learning](#) (*National strategi for e-læring*). Measures focused on five target groups, including special needs groups.

2006

In 2006, the National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA) assessed the accessibility of public websites, the most commonly-used work tools, and the cost of providing accessible sites and work tools.

The benchmarking concluded that:

- ▶ no websites passed the requirements of WCAG level AA;
- ▶ most work tools were inaccessible;
- ▶ anticipated additional cost for buyers, suppliers and consultants was between 10-30 % of the total cost.

2003

The government's IT and telecommunications policy action plan for 2003, '[Using IT Wisely](#)' (*It med omtanke – It - og telepol itisk handlingsplan 2003*), was prepared. It launched an initiative to further the use and development of eLearning. The initiative aimed at focusing on the efficient use of eLearning in Danish society. An impact assessment concluded that Denmark had come a long way in realising the 37 initiatives introduced in the 2002 action plan '[IT for All - Denmark's Future](#)' (*IT for alle - Danmarks fremtid*).

2002

- ▶ The IT and telecommunications policy statement and action plan '[IT for All - Denmark's Future](#)' (*IT for alle - Danmarks fremtid*) was launched. In using the Danish IT model as a starting point, it stressed the importance of access to IT and the accompanying skills needed to reap its benefits for the whole of society.
- ▶ The action plan 'Disability no Hindrance' (*Handicap ingen hindring*) put eAccessibility on the government agenda and proposed measures for achieving it. It detailed the use of ICT for people with disabilities.

1998

The report '[Seniors and IT](#)' included a study that investigated the experiences, knowledge and needs of people over 60 with respect to modern information technologies during the emerging Internet era.

1996

- ▶ The '[Info-Society for all – the Danish Model](#)' (*Info-samfundet for alle- den danske model*) was the government's IT policy submitted to the Danish Parliament. It followed up the outcomes of the first policy action plan '[From vision to action - Info-Society 2000](#)' (*Fra vision til handling - info-samfundet år 2000*).
- ▶ 'Freedom to Choose: Action Plan on IT Use by People with Disabilities' (*Frihed til at vælge: handlingsplan for handicappedes IT-brug*) was prepared in 1996, making it the first accessibility action plan in Denmark that focused on people with disabilities. The overall aim was to ensure equal opportunities in relation to information technology. Its goals included raising awareness of the needs of the disabled in terms of accessible ICT, as well as of their potential benefits. Initiatives addressed accessibility of public and private sector ICT, promotion of universal design and electronic communications. The action plan put forth the idea that IT facilities installed in public areas had to be accessible to all, including disabled users, regardless of whether they were supplied by public or private sources.

1995

The '[From vision to action - Info-Society 2000](#)' (*Fra vision til handling - info-samfundet år 2000*) action plan set in motion the Danish model for using information technology.

eInclusion Strategy

Main strategic objectives and principles

IT and Telecommunications Policy Report 2010

The Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) prepared for parliament its annual report on the ICT state of play. It put forth the government's ICT initiatives relative to policy aims. The '[IT and Telecommunications Policy Report 2010](#)' (*It- og telepolitisk redegørelse 2010*) contains key issues and strategic objectives in ICT and government policy.

World-class digital infrastructures

The government intends to achieve country-wide broadband availability. The strategy for development of digital infrastructures is based on a market-driven and technology-neutral approach. Broadband coverage currently consists of a combination of technologies based on fibre, cable, copper and wireless technologies. Even though these technologies exhibit different characteristics, all have been through rapid development which has resulted in greater bandwidth. By leaving the choice of technology and development to the market, the foundation is laid down for infrastructure growth which matches existing conditions and needs.

Digital skills for the future

Boosting the ICT skills of the general public is a major focus area. Market forces dictate the enhanced use of ICT skills in the workplace. It is therefore important to strive to ensure that Danes make the most of the opportunities offered by ICT so they are not excluded from the labour force and the information society in general.

Advantageous digital content and new opportunities

The government wants all relevant communication between businesses, citizens and the public sector to be digital by no later than 2012. Work on reaching the goal is intended to switch citizens and businesses over to electronic channels and increase the use of digital solutions. Expanding digital communication to all areas will not only create new services to the benefit of all citizens and businesses, but will also yield major efficiency benefits for the authorities and the private enterprises which provide them.

Digital Roads to Growth

'[Digital Roads to Growth](#)' (*Digitale veje til vækst*) places particular emphasis on creating ICT-based growth and ensuring the continued widespread use of ICT by the entire population, including the disabled and the elderly. ICT is a powerful driver for Denmark's ability to succeed globally, and enhanced ICT skills are a precondition for this to be realised. The policy document sets forth initiatives to be carried out by the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) in order to build up the foundation of a knowledge-based society.

Initiatives in key focus areas:

- ▶ Strengthen ICT research at Danish universities and encourage companies to apply for ICT funding from EU framework programmes in R&D.
- ▶ Foster universities as digital frontrunners by digitalising communications, exams and applications, and increasing the use of eLearning.
- ▶ Achieve the 2012 goal of 100 % B2G (business-to-government) and C2G (citizen-to-government) digital communication.
- ▶ Strengthen ICT skills jointly between government, NGOs and educational institutions.
- ▶ Improve the eAccessibility of public and private websites through the development of targeted eLearning material, increased international cooperation and intensified guidance and information campaigns.

- ▶ Enhance digital channel strategies in government for one stop shops for citizens and private enterprise:
 - borger.dk - official gateway to the public sector (local, central and regional authorities) in Denmark;
 - virk.dk - business portal that relieves Danish companies from administrative burdens and provides a single entry point to the public sector.

National strategy for eLearning

The purpose of the [National strategy for eLearning](#) (*National strategi for e-l ring*) is twofold: firstly, to increase the use and quality of eLearning via innovative ICT, and secondly, to place Denmark at the forefront of eLearning worldwide.

Coordinated initiatives will be implemented for the purpose of strengthening eLearning within the following target groups:

- ▶ **Children and youth:** Young Danes are among the most digitally literate in the world; however, the high level of motivation inherent in these age groups can be better utilised for the purposes of learning. Initiatives will aim to promote interest in such areas as ICT by focusing on the early digital media habits adopted by children and youth in their spare time.
- ▶ **University students:** One of the government's goals is to increase the number of learners enrolled in tertiary education. It is necessary to create new and flexible lifelong learning opportunities for completing higher education throughout adulthood. Retraining for university-graduate workers has to be provided via eLearning on an ongoing basis in order to strengthen Denmark's market position nationally and internationally. A number of the necessary preconditions for involving ICT in education are already in place. Tertiary-level establishments have a well-developed IT infrastructure and its student bodies are digitally literate. Higher education institutions are already working to incorporate ICT in their curricula.
- ▶ **Public sector employees:** High level of online services and quality assurance upgrades of government authorities are conditional upon employee competencies. As such, public workplaces should lead with respect to enhancing ICT skills, whether in the form of in-service training or through flexible online methods. The starting point for a wider commitment to eLearning in public institutions is the establishment of a platform for course and eLearning programmes in the federal government sector, known as a Learning Management System (LMS). It provides the individual employee and workplaces with an overview of opportunities for competency development. A future aim is to accommodate employees in regional and local administrations.
- ▶ **Private sector employees:** It is widely understood that acquiring competencies is an ongoing process; however, in practice this is not generally the case for working Danes. eLearning opens up new avenues for further and continuing education. Tailored eLearning platforms that match the real needs of the labour force will focus on the development of ICT skills.

The implementation of the national strategy will end in 2011.

eInclusion Legal Framework

Main legal texts impacting on the development of eInclusion

eAccessibility Legislation

In lieu of direct legislation, policy on disability emphasises three main principles: solidarity, compensation and sector responsibility. In terms of actual levels of accessibility achieved to date, Denmark exceeds the EU average. Despite the fact that there is no direct equality or anti-discrimination legislation, a 1993 parliamentary decision sets out that Danish policy on disability rests on the principle of equal opportunities.

Source: '[Measuring Progress of eAccessibility in Europe - MeAC](#)

Rights of Persons with Disabilities

[Convention on the Rights of Persons with Disabilities A/RES/61/106](#)

Denmark has ratified the Convention on the rights of persons with disabilities. Article 4 states that the government will undertake or promote R&D, and encourage the availability and use of new technologies, including ICT, mobility aids, devices and assistive technologies, suitable for persons with disabilities. According to Article 9, the government shall take appropriate measures to:

- ▶ ensure people with disabilities access, on an equal basis with others, to ICT and other facilities and services open to or provided for the public, both in urban and in rural areas;
- ▶ promote access for people with disabilities to new ICT, including the Internet.

Websites

There are no direct legislative or regulatory measures regarding accessibility of websites apart from the Danish sector responsibility policy, where all stakeholders are obligated to provide measures to accommodate the disabled in the workplace and society overall. Since the Danish Parliament unanimously adopted 'Parliament Resolution B103' in 2006 on the use of open standards for software in the public sector, the government has been in dialogue with the parliamentary parties on the use of open standards. As a result, in late 2007, it entered into an agreement with Local Government Denmark (KL) and Danish Regions (*Danske Regioner*) on the use of seven sets of mandatory open standards for the public sector. The agreement, which came into force on 1 January 2008, helps ensure interoperability and effective digitalisation of the public sector. The standards include, among others, data exchange between public authorities, electronic invoicing within the public sector, accessibility, digital signature, IT security and document exchange.

Even though Denmark has adopted a non-legislative approach towards accessibility of public websites, the use of the Web Content Accessibility Guidelines (version 2, level AA) were made mandatory by the public sector on 1 January 2008 by means of a formal agreement which spanned the federal, regional and local district levels. This agreement came into being as a result of 'Parliament Resolution B103'.

Source: '[Measuring Progress of eAccessibility in Europe - MeAC](#)

Assistive technology

Social Services Act

People with reduced functional capacities can obtain assistance to purchase devices or modifications under the 'Social Services Act No. 573' (amended in 'Consolidation Act on Social Services 2010 No. 1096'), including the provision of assistive devices for caregivers. The aid has to widely compensate for or alleviate the disability/impairment. Furthermore, it has to considerably facilitate daily living at home, or be necessary to enable the user to perform a job.

Municipalities are responsible for providing assistive technology funding for acute mental or physical disabilities. According to Section 112(2), no. 4, a regional authority shall grant support for aids (e.g. magnifying programmes, screen readers, point displays and synthetic speech). In addition, funding is provided for consumer products that are of special importance to disabled people, such as computers for the speech disabled.

[Act No. 1417 of 22 December 2004 on the prohibition of direct and indirect discrimination on the grounds of age and disability](#)

The Directives [2000/43/EC](#) and [2000/78/EC](#) were transposed into Danish Law in Act No. 1417, which amended the 1996 Act prohibiting discrimination in the labour market on the grounds of race and ethnicity. As a result of 'Act No. 1417', Danish legislation for the first time directly prohibits discrimination on the grounds of age and disability. An employer has to adapt the working environment to accommodate a disabled employee. This is not the case when such modifications place an excessive burden on the employer. Equipment needed to carry out daily tasks on the job is financed by the public authorities at no extra cost to the employer. This strong public support and government backing for assistive technologies helps reduce the risk of employers refusing workplace modifications.

Source: '[Measuring Progress of eAccessibility in Europe - MeAC](#)'

eCommunications Legislation

Telecommunications / Universal service obligation

Executive Order No. 368 of 20 June 2005 on Provision of Electronic Communications Networks and Services

Section 3 of the 'Executive Order No. 368 of 20 June 2005 on Provision of Electronic Communications Networks and Services' states that all telecommunications network providers and providers of voice telephony services have to ensure access to the public emergency service (112), the universal service obligation (USO) provider's text telephone service and the emergency call number of that service.

[Act No. 784 of 28 July 2005 on Competitive Conditions and Consumer Interests in the Telecommunications Market](#)

Obligations in relation to telecommunications are underpinned by legislation. Public responsibility for meeting the needs of disabled persons in the telecommunications area lies with the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) and the National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA). It is mainly implemented via the universal service obligation (USO), under which special telecommunications services have to be made available to certain defined groups of disabled people ('Act No. 784', section 16(2), no. 4).

[Consolidated Act No. 780 of 28 June 2007 on Competitive Conditions and Consumer Interests in the Telecommunications Market](#)

As stated in the 'Consolidated Act No. 780 of 28 June 2007 on Competitive Conditions and Consumer Interests in the Telecommunications Market', special telecommunications services have to be made available to certain defined groups of disabled people under the universal service obligation (USO). Through the USO, every Dane is entitled to specified telecommunications services such as landline telephony and special disability services. 'Act No. 784' contains provisions that implement parts of Directive [97/33/EC](#) with regard to ensuring universal service and interoperability through application of the principles of open network provision (ONP).

Executive Order No. 1262 of 9 December 2005 on USO Services

According to 'Executive Order No. 1262 of 9 December 2005 on USO Services', sections 5 and 6 contain the following provisions:

- ▶ A PC-based text telephone service for the deaf, people with acquired deafness, the deaf-blind as well as the speech- and hearing-impaired. As part of the text telephone service, Internet access shall be offered and the communication centre of the text telephone service accessible all 24. The universal service obligation (USO) terms stipulate that a universal service provider (USP) shall make terminal equipment for the service available to entitled end-users. The USP is also responsible for the repair and replacement of such equipment.
- ▶ A nationwide directory enquiry service for numbers in the Danish numbering plan and automatic through-connection to the numbers in question at a reduced rate for the blind, the deaf-blind, the visually impaired, the print disabled and certain groups of physically handicapped people, who, via the service, may be substantially compensated for their disability.

Broadcasting

There are no specific legislative or regulatory provisions in relation to accessibility of Danish analogue or digital broadcasting, as such obligations are set out in service contracts. There are references to eAccessibility in the public service contracts of the public service broadcasters DR and TV2. Services for the disabled are alluded to in the public service contract signed between the Ministry of Culture (*Kulturministeriet*) and DR in 2007. DR is expected to strengthen disabled persons' access to public service offerings during the contract period by using voice recognition technology, captioning, visual sign translation and sign translation, as well as other new and emerging technologies. By 2012, all broadcasts have to be subtitled. In addition, DR is responsible for the following actions within the contract period:

- ▶ Undertake pilot trials with visual translation.
- ▶ Supply a minimum of one news broadcast that is fully subtitled on a nightly basis. Parliamentary elections and all associated actions have to be fully subtitled, including live broadcasts. These broadcasts also have to be provided in sign language.
- ▶ Increase the collective share of subtitled broadcast hours.
- ▶ Strive to transmit events of great national importance and interest, either in subtitles, or in sign language.

As part of the 2003 public service contract between DR and the Ministry of Culture (*Kulturministeriet*), DR broadcasts 10 minutes of news in sign language per weekday. Users also have the option of watching the 10-minute segment on the DR website.

As for digital broadcasts, DR has to work in partnership with TV2 and the regional TV2 subsidiaries to develop, produce and broadcast a common electronic programme guide (EPG), and offer sign language translation of at least two of the regular news broadcasts on its television stations DR1 and/or DR2 daily, between 17.00-24.00.

Dictus is a computer-based speech-to-text system developed as part of the public service agreement between DR and TV2 on expanding services for the deaf and hearing impaired. It was partly financed by DR and TV2.

Source: '[Measuring Progress of eAccessibility in Europe - MeAC](#)'

eInclusion Actors

Main roles and responsibilities

National eInclusion

Policy/Strategy

[Ministry of Science, Technology and Innovation](#) (*Ministeriet for Videnskab, Teknologi og Udvikling*)

The Ministry is responsible for policy in ICT, digital literacy and telecommunications. It focuses on expanding the availability and use of ICT in Danish society. The three priority areas are citizens, businesses and public administration.

[Ministry of Social Affairs](#) (*Socialministeriet*)

The Ministry's main responsibility lies in policy formulation for the elderly, the disabled and marginalised groups. It assists the government and parliament in drafting bills.

[National IT and Telecom Agency](#) (*IT- og Telestyrelsen*, NITA), [Ministry of Science, Technology and Innovation](#)

The National IT and Telecom Agency drafts bills and executive orders, and issues administrative regulations in areas where authority has been vested in NITA. It launches activities within ICT for the purpose of creating digital access and digital infrastructures in the public sector.

Coordination

[National IT and Telecom Agency](#) (*IT- og Telestyrelsen*, NITA), [Ministry of Science, Technology and Innovation](#)

Within the area of ICT, NITA coordinates collaboration activities between ministries, all levels of government and relevant stakeholders. Furthermore, it coordinates a number of cross-sectoral initiatives.

Implementation

[National IT and Telecom Agency](#) (*IT- og Telestyrelsen*, NITA), [Ministry of Science, Technology and Innovation](#)

NITA is tasked with implementing ICT policy, and carries out the primary activities of the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) in this area.

Support

[Ministry of Science, Technology and Innovation](#) (*Ministeriet for Videnskab, Teknologi og Udvikling*)

The Ministry supports the development of digitalisation in the public sector by establishing the general ICT framework for architecture and standards. It provides financial support to various projects relevant to the disabled in relation to telecommunications.

[Ministry of Social Affairs](#) (*Socialministeriet*)

The Ministry provides financial support for the disability-related project '[Implementation of Technology](#)' (*Implementering af teknologi*) during the period 2008-2011.

National IT and Telecom Agency (*IT- og Telestyrelsen, NITA*), **Ministry of Science, Technology and Innovation**

NITA advises all key actors within ICT on current legislation and general matters concerning IT and telecommunications. It promotes competition in the area of IT and telecommunications, aims to safeguard consumer protection, and provides a suitable framework for offering and using IT and telecommunications products.

Danish Centre for Technical Aids for Rehabilitation and Education (*Hjælpemiddelinstitutionen*), **Ministry of Social Affairs**

The Danish Centre for Technical Aids for Rehabilitation and Education, an independent institution under the Ministry of Social Affairs (*Socialministeriet*), supports local government and private organisations in providing qualified and efficient assistive technology services.

It carries out a wide range of activities, including:

- ▶ tests, trials and standardisation of assistive devices;
- ▶ participation in national and international projects and research activities;
- ▶ dissemination in the form of conferences, courses, networking, print and online materials.

eInclusion Who's Who

Main eInclusion decision-makers and executives

Ministers responsible for eInclusion



Charlotte Sahl-Madsen
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eInclusion Areas

Riga Declaration Priorities

ICT & Ageing

Status in ICT & Ageing

The report [Eurostat Data in Focus](#) compared Internet use in 29 European countries. It showed that elderly men (55-74) in Denmark far outstripped the EU-27 average (31 %). Women in the same age group were well placed among the benchmarked countries with 47 %, ranking fourth overall.

There are more Danes going online than ever before and the gender and generation gaps are steadily diminishing. In the 60-74 age group, 65 % use the Internet, compared to 54 % in 2008.

Source: [Statistics Denmark](#)

Actions to support ICT & Ageing

'Digital Roads to Growth'

In the ['Digital Roads to Growth'](#) (*Digitale veje til vækst*) action plan, the elderly figure prominently in achieving the government target of full digital communication between citizens and the public sector. The policy document stresses the need to provide the ageing population with more opportunities to play an active part in the information society beyond 2010. The ['Learn More About ICT Network'](#) (*Lær mere om it-netværket*) includes senior citizens associations and is used to target this specific demographic group.

IT drop-in centres

The [Danish Association of Senior Citizens](#) (*Ældremobiliseringen*) has established IT drop-in centres aimed at introducing the elderly to the information society. The NGO, an umbrella organisation totalling more than 450 000 members, provides tailored ICT training throughout the country.

Geographic Digital Divide

Status of Common Access to Electronic Content and Services

According to [OECD statistics on broadband](#), Denmark continues to have the highest broadband penetration per 100 inhabitants of any country in the world. In addition, more than 99 % of all households and businesses were able to obtain internet access via a broadband connection.

A National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA) broadband [survey](#) in 2010 reported that 92 % of Danes were able to gain access to 10 Mbps, while 99 % obtained a 2 Mbps broadband connection.

Denmark is among the EU countries with the widest distribution and most extensive use of ICT. It is the leader in DSL availability and in broadband population penetration. Broadband take-up is still increasing, and reached 37.8 % in 2009. 90 % of connected households have a broadband subscription, while 94 % of broadband connections access speeds of at least 2 Mbps. Denmark is also a leading country in wireless technologies. 10 % of Danes are connected via 3G mobile phones and 31 % via laptops.

Source: [Europe's Digital Competitiveness Report 2010](#)

Broadband survey

The National and Telecom Agency (*IT- og Telestyrelsen*, NITA) provides an overview of the accessibility of various connection speeds and technologies in the ['Broadband Mapping 2010'](#) (*Bredbåndskortlægning 2010*) report. It states that the government is on track and expects to meet the 2010 broadband

penetration target (at least 512 Kbps for all households and businesses). It is estimated that there were fewer than 1 000 households and businesses that did not have access to a 512 Kbps connection in mid-2010. Denmark is well on its way to achieving the EU target set for broadband connections at speeds of least 30 Mbps by 2020. In mid-2010, 74 % of all households and businesses were already able to gain access to a minimum speed of 30 Mbps.

Actions to support Common Access to Electronic Content and Services

'Digital Roads to Growth'

In an effort to achieve the objective of rapid wireless infrastructure expansion, the government launched '[Digital roads to growth](#)' (*Digitale veje til vækst*). In June 2010, as part of the action plan, the government announced its target for the spread of fast broadband: all citizens and businesses across the country to have access of at least 100 Mbps by 2020.

Development of new wireless broadband infrastructures

The Danish Parliament unanimously passed new frequency legislation in 2009 which provides for trouble-free and flexible access to frequencies, as well as the construction of wireless infrastructures. The 800 MHz frequency band (MUX 7) is to be used for purposes other than television broadcasting, namely for mobile broadband. The decision is seen as key for the government's strategy of making broadband available for all, as the frequencies are well suited to the provision of mobile broadband in low population density areas. As such, the frequencies can contribute to tackling issues that persist with respect to existing broadband coverage. The law entered into force on 1 January 2010 and supports market-driven frequency use, including extended access to trading of frequency licences or parts thereof. It also increases the opportunity for owners of frequency licences to decide which technologies they wish to apply for. In the long term, the benefits to be derived are increased innovation and faster development of new wireless services.

Broadband penetration targets

The National IT and Telecom Agency (*IT- og Telestyrelsen*, NITA) works to meet the government target of a world-class electronic communication infrastructure.

Broadband penetration targets for all households and businesses:

- ▶ 2010 - access to a broadband connection of at least 512 Kbps;
- ▶ 2020 - access to a broadband connection of at least 100 Mbps.

Both targets will be met by continuing the market- and technology- neutral approach to broadband deployment.

High Speed Committee report

The High Speed Committee (*Højhastighedskomiteen*) was tasked with recommending initiatives to further the development of broadband. The government-appointed body focused its efforts on the capacity of local authorities to assist in sparsely populated areas, if demand alone cannot ensure access to high-speed broadband. Local administrations are a strategic area for the government, if it is to ensure continued development and potential growth throughout the country.

The Committee delivered its final [report](#) to the government in January 2010. The report contains recommendations on how Denmark can develop into a high speed society.

- ▶ **Broadband infrastructure:** Good framework conditions for investing and performing business in the broadband area have to be ensured. The Committee deems important that the development of broadband infrastructure in Denmark should continue to be market-based and technology-neutral. The public sector should focus on stimulating the general public's use of broadband, which will in turn increase the incentives for private parties to invest in broadband. In order to ensure broadband development, new visions and milestones should also be established that indicate political priorities in this area.

- ▶ **R&D in the IT area:** A marked increase in the volume of IT research and a strengthening of IT research environments should take place. In addition, focus should be placed in supporting public-private collaborative efforts, and concentrating on Danish IT strengths.

eAccessibility

Status of eAccessibility

In the course of the past 20 years (1990-present), as the population continues to age, a shift has become apparent in the Danish age distribution. In the next 20 years, the elderly population (aged 65 or above) is expected to increase precipitously, while the figures for those under 18 and 18-65 are not expected to rise.

The population forecast shows that the number of people aged 80 or above will double in the coming decades from 224 000 in 2007 to 450 000 in 2040. As public assistance for the elderly in Denmark is based on the principle of universal right and given on the basis of individual need, this trend is particularly significant in assessing how the need for assistive technology will continue to unfold, as the ageing population will require extensive services and accommodation facilities.

Source: [Ministry of Social Affairs](#)

Actions towards eAccessibility

'Digital Roads to Growth'

The '[Digital Roads to Growth](#)' (*Digitale veje til vækst*) strategy document strives to ensure the eAccessibility of public ICT solutions. The public sector is mandated to provide online services that can be used by all, regardless of disability.

Based on this, the following key actions have been set:

- ▶ Develop eAccessibility competencies throughout the public sector workforce in 2010 and beyond. It has been shown that a moderate number of government employees lack knowledge when it comes to the requirements and benefits of eAccessibility solutions, and how these are achieved in practice. To this end, eLearning material targeted at public sector employees has been developed and was made freely available on various platforms in December 2010.
- ▶ Step up targeted dissemination efforts for eAccessibility, in collaboration with relevant stakeholders.
- ▶ Build synergies with other European countries, intensify participation in European and Nordic eAccessibility initiatives and foster knowledge sharing.
- ▶ Distribute in 2011 in cooperation with private sector stakeholders eLearning material that has been developed which targets private service providers on the Internet.

Centre of Excellence IT for All

The [Centre of Excellence IT for All](#) (*Kompetencecenter it for alle, KIA*), under the National and Telecom Agency (*IT- og Telestyrelsen, NITA*), is tasked with compliance and implementation of guidelines for accessibility.

Key eAccessibility goals:

- ▶ Ensure that the accessibility of IT and telecommunications is strengthened and standardised, and that accessibility is incorporated in IT policy initiatives, wherever possible and relevant.
- ▶ Promote the development of an effective and usable Danish language technology.
- ▶ Create collaborative interfaces to disability organisations, IT and telecommunications operators, relevant public institutions and existing knowledge environments.
- ▶ Promote standardisation, information, research and teaching within universal design, in close cooperation with relevant stakeholders.

KIA has supported the following eAccessibility-related initiatives:

- ▶ [Danish Knowledge Centre for Dyslexia](#) – development of IT-based spelling and writing assistance, intended to give language support and serve as a functional tool for dyslexic children, youth and adults.
- ▶ [Institute for the Blind and Partially Sighted](#) – a project designed to develop a programme that allows access for the visually disabled to all electronic reference books.
- ▶ [Danish IT Centre for Education and Research](#) – completing and ensuring future usability of a reliable and accessible Linux solution adapted for a Danish environment.
- ▶ [Aalborg University](#) – project (indtal.dk) to develop a Danish speech recognition tool for navigation on the Internet.

Danish Centre for Technical Aids for Rehabilitation and Education

The [Danish Centre for Technical Aids for Rehabilitation and Education](#) (*Hjælpemiddelinstittet*) is the Danish representative of the EDeAN (European Design for All e-Accessibility Network) National Contact Centre network. Its overall purpose is to support local government and private organisations in providing qualified and efficient assistive technology services. The assistive technology centre targets professionals engaged in providing assistive technology to the disabled, as well as decision-makers, researchers, vendors, developers and users of assistive devices.

The Centre aims to:

- ▶ maximise accessibility and inclusion in society at large;
- ▶ facilitate the appropriate application of the resources allocated to assistive technology;
- ▶ present knowledge in a way that is holistic, coherent and operational for the target groups;
- ▶ develop and improve the quality of assistive technology, educational materials and professional methods;
- ▶ ensure that standardised technological solutions are designed, developed and applied in a way that benefits all users in general and the disabled in particular.

The Centre maintains the [Assistive Technology Database](#) (*Hjælpemiddelbasen*), an online repository with information on approximately 36 000 assistive devices and 450 vendors in the Danish market. The database provides technical data and vendor information for a wide range of products. It assists practitioners in selection and purchase.

'Implementation of Technology' project

The vision of the ['Implementation of Technology'](#) project (*Implementering af teknologi*) 2008-2011 is to provide individuals with communication-related disabilities new opportunities for active participation in society, and to benefit from independent living.

The project seeks to:

- ▶ implement communication technology as a natural aspect of everyday life for residents and personnel in homes for the disabled;
- ▶ establish partnerships with research groups, IT companies, volunteers and residences for the disabled by combining different competencies and perspectives;
- ▶ develop teaching materials and courses related to the implementation of IT for disabled persons for educational institutions and relevant stakeholders.

Based on this, the following activities have been set:

- ▶ technology-screening in the use of IT in care homes for the disabled;
- ▶ establishment of an IT volunteers' network at care homes for the disabled;
- ▶ training to improve the IT skills for personnel working in care homes for the disabled.

Danish National Library for Persons with Print Disabilities

The [Danish National Library for Persons with Print Disabilities](#) (Nota) provides services for the blind, the visually impaired and print disabled users whose impairment prevents them from reading standard printed material. It serves as a national contact point for public libraries in the procurement of devices specially designed for blind, partially sighted and print disabled users. It is Nota's vision to offer full access to the information society for the disabled. It currently produces materials in audio, Braille and computer formats, and has begun to convert the production of analogue talking books to digital talking books.

Danish Centre for Visually Impaired Children and Youth

The [Danish Centre for Visually Impaired Children and Youth](#) (*Synscenter Refsnaes*) has pioneered [RoboBraille](#), an email-based translation service that allows visually- and reading-impaired users to have electronic documents converted into either synthetic speech, or Braille. The only skill a user requires in order to access the service is to be able to send and receive email. The service is free of charge for all non-commercial users, thus making electronic documents widely accessible to people with visual or reading impairments. The turnaround time can be as short as a few minutes, meaning that RoboBraille greatly contributes to enabling blind and partially-sighted people with quick access to information in a format of their choice.

'Top of the Web' initiative

The ['Top of the Web'](#) initiative (*Bedst på Nettet*) is a yearly quality screening of public websites which promotes overall usability and accessibility in web design, as well as the strategic use of Internet-based solutions as communication channels for public authorities. Public websites are awarded 'Net crowns'. While not a fully-fledged national certification scheme, it does influence accessibility issues and the enforcement of guidelines.

Digital Literacy and Competences

Status on Digital Literacy and Competences

Boosting ICT skills is a strategic focus area for the government. It is seen as imperative to strive to ensure that Danes can make the most of the opportunities offered by ICT, and are not marginalised in the job market or excluded from the information society.

In 2009, the [Eurostat Data in Focus](#) report compared Internet access and broadband connections by households in 33 European countries. Among the EU-27, Denmark ranked 3rd overall in both Internet access (83 %) and broadband connections (76 %).

Actions towards stimulating Digital Literacy and Competences

'Digital Roads to Growth'

The strategy document ['Digital Roads to Growth'](#) (*Digitale veje til vækst*) has put forth key actions to enhance the digital skills of the entire population:

- ▶ Formulate a set of digital skills and competencies that are necessary in order for citizens to be actively involved in the information society. Input will come from all relevant parties, and serve as an impetus for further actions. This initiative may be seen as the Danish equivalent to the ['Digital Agenda for Europe'](#) with respect to the formulation of EU-wide indicators for digital competences by 2013.
- ▶ Implement a citizen-to-citizen education campaign whereby digital literates provide guidance and instruction to weaker ICT users or the uninitiated.
- ▶ Initiate a research project that will shed light on the needs, motivation and best practice in the ICT skills area.

- ▶ Strengthen eSkills of SMEs through eLearning solutions and free basic ICT training made available by the ['Learn More About ICT Network'](#) (*Lær mere om it-netværket*). Surveys show that employees in small enterprises often lack even very basic ICT know-how.

High Speed Committee report

The High Speed Committee (*Højhastighedskomiteen*) [report](#) to the Danish Government in January 2010 contained recommendations that covered digital skills and competencies. It stated that major focus should be placed on strengthening ICT skills in order to drive an information society, with particular emphasis on boosting ICT in public schools and higher education.

'It-formidler' website

The [website](#), whose membership primarily consists of teachers and members of the ['Learn More About ICT Network'](#) (*Lær mere om it-netværket*), was launched in 2009 with a vision to support and inspire ICT trainers. Members have developed and published more than 60 sets of educational materials that are freely available. eModules include such topics as Internet and websites, files and file management, word processing, spreadsheets and email. The website will be re-launched as 'laermereomit.dk' on 1 February 2011.

Adult ICT skills training

In late-2009, the Ministry of Science, Technology and Innovation (*Ministeriet for Videnskab, Teknologi og Udvikling*) initiated an inter-ministerial partnership to identify opportunities for adult ICT skills training. The results were published in March 2010 and illustrated a plethora of ICT course offerings aimed at adults. Next year's mapping will form the basis for initiatives to increase awareness of ICT courses on offer.

Learn More About ICT Network

The ['Learn More About ICT Network'](#) (*Lær mere om it-netværket*) is a nationwide network-organisation aimed at providing ICT training to all Danes locally. As of December 2010, it is comprised of 16 members, including senior organisations, Local Government Denmark (the organisation of Danish municipalities), public library organisations, trade unions and adult education associations.

eInclusion and Cultural Diversity

Status on eInclusion and Cultural Diversity

According to a 2009 status [report](#) on integration efforts published by the Ministry of Refugee, Immigration and Integration Affairs (*Ministeriet for Flygtninge, Indvandrere og Integration*), there were approximately 530 000 immigrants and descendants living in Denmark, or 9.5 % of the population. For the first time in 2004, net immigration from Western countries exceeded that of non-Western countries, posing new integration challenges. There were almost 60 000 people of Turkish origin living in Denmark, representing the largest immigrant group.

According to the Riga Dashboard, the 'Index of Regular Internet Use in At-Risk Groups by Country', compiled by the European Commission's ['Europe's Digital Competitiveness Report'](#) (2010), Denmark at 0.84 for the 'Riga Total-at-Risk Groups' is well above the EU-27 average (0.68).

Actions towards eInclusion and Cultural Diversity

In 1999, Denmark became the first country in the world to introduce integration legislation. The law was intended to ensure that newly-arrived refugees and immigrants made the most of their abilities on an equal footing with Danes.

Source: [Ministry of Foreign Affairs](#)

ICT skills training

Refugees and immigrants are provided with opportunities to advance their qualifications and supplement their work experience, including ICT skills training. With the government having aimed to engage 25 000 more immigrants and their relatives by the end of 2010, digital skills training is seen as an important step in the process of gaining initial employment.

In an effort to enhance integration initiatives among its adult immigrant groups, the government provides for a variety of education and tuition opportunities, from general education through to continuing education at adult learning centres.

'All Young People Needed' campaign

The '[All Young People Needed](#)' (*Brug For Alle Unge*) campaign is among the government's integration-promoting activities, currently being implemented under both public and private auspices. It is intended to motivate ethnic minority youth to engage in the learning process and complete an education, in part by using apprentices who teach a wide range of computer and web courses.

Inclusive eGovernment

Status on Inclusive eGovernment

According to the European Commission 2009 report '[Smarter, Faster, Better eGovernment - 8th Benchmark Measurement](#)', Denmark leapfrogged from its 14th rank in 2007 to occupy the 9th position in 2009 in terms of full online availability. Within two years, it has increased its benchmarked indicator by more than twenty percentage points to its current 84 %. Similarly, Denmark has gained five ranks in the online sophistication benchmark, where it now stands 10th overall at 93 %.

Denmark is a leading country in eGovernment usage. In 2009, the online availability of public services was 100 % for enterprises and approximately 75 % for citizens. There is a strong focus on improving the delivery of public services and thus on the interfaces and the ways people and businesses interact with government. Denmark's cross-government decision-making processes are highly inclusive, aiming to ensure more coherent policies and a more collaborative and efficient organisation of government. The take-up of online public services in Denmark is one of the highest in the EU.

Source: [Europe's Digital Competitiveness Report 2010](#)

Actions towards Inclusive eGovernment

High Speed Committee report

The High Speed Committee (*Højhastighedskomiteen*) [report](#) contains recommendations that cover the following eGovernment areas:

- ▶ **Digitalisation of the public sector:** If Denmark is to achieve the desired outcomes from the implementation of new technology in public services, it will be necessary to ensure a coherent IT application with better cross-public coordination, development of common standards and increased incentives for using digital solutions.
- ▶ **The public sector as a platform for innovation:** Step up the focus on service orientation, open source software, open standards, access to public data and opportunities for user-driven innovation.

Government gateway

[borger.dk](#) is the point of entry to the entire public sector. A wide range of public authorities across all levels of government work collaboratively to deliver and update content. The idea behind the official portal is that citizens should always be able to find relevant information or relevant self-service solutions, regardless of the government source.

The government gateway is fully compliant with eAccessibility standards, frequently involving accessibility experts in quality assurance. According to the [United Nations eGovernment Survey 2008](#),

'borger.dk' tops the world rankings in eServices portals; Denmark ranked 2nd in eGovernment readiness among 35 countries.

Public procurement toolkit

The [public procurement toolkit](#) (*Udbudsværktøjskassen*) is a web-based application aimed at assisting public procurers in successfully implementing eAccessibility requirements for all citizens, including the disabled, in their procurement processes or, more specifically, in their tenders and contracts. It incorporates a number of eAccessibility standards/guidelines which can be applied to different kinds of ICT components, namely hardware, software and web solutions.

Centre of Excellence IT for All

The [Centre of Excellence IT for All](#) (*Kompetencecenter it for alle*, KIA) works to ensure that accessibility (universally-designed solutions) is integrated in tendering, development and procurement of new systems and equipment to be used by eGovernment employees. KIA draws up guidelines that can be used in connection with public procurement, and gives advice and guidance to public authorities in connection with ongoing procurement and tendering.

eDay3

The government held [eDay3](#) (*eDag3*) on 1 November 2010, with the theme 'Easy online access to public services' (*Nem adgang til det offentlige på nettet*). The overall aim was to provide citizens and businesses with far more efficient and user-friendly online services. The initiative takes place annually and promotes the digitisation of the public sector.

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'.

Denmark is involved in the following FP7 projects:

1. [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

2. [An ambulatory BCI-driven tremor suppression system based on functional electrical stimulation](#) (TREMOR)

Research area: ICT-2007.7.2 Accessible and inclusive ICT

Project start date: 1 September 2008

Project end date: 31 August 2011.

Future Challenges

eInclusion

'IT and Telecommunications Policy Report 2010'

The most pressing ICT issues facing Denmark are outlined by Charlotte Sahl-Madsen, Minister for Science, Technology and Innovation, in her '[IT and Telecommunications Policy Report 2010](#)' preface:

"Information and communication technology (ICT) is an important means of fulfilling the goal of growth and prosperity - and the technology is already available. What we need to do now is exploit it. We need to dare to think creatively and be innovative, to convert technological advances into social and economic development.

We need to ensure our competitiveness through a combination of research and development of new knowledge, a well-educated workforce, innovative use of ICT and the expansion of digital services. These areas represent great potential for creating growth, increasing efficiency and generating new jobs.

Investment in ICT has already contributed significantly to the growth in productivity from the start of the 80s to the present. ICT therefore plays a key role in getting safely through the current economic crisis, and creating a solid platform for development of the society of the future."

ICT policy in line with the EU

The president of the European Commission, José Manuel Barroso, has recently put the focus on ICT as a powerful driver in his proposal for a new European strategy 'Europe 2020: A strategy for smart, sustainable and inclusive growth'. In 2010, the EC published a Broadband Communication which put forth measures to achieve the Digital Agenda targets. Danish priorities in ICT will therefore be formulated in the short term based on the measures spearheaded by the EC.

Denmark's digital lead is being challenged by countries which are investing heavily in the roll-out of new communication infrastructures. It is therefore vital to exploit ongoing digital development through the government target of establishing world-class digital infrastructures. Denmark's leading position in the ICT area can only be maintained and strengthened if decision-makers at all levels actively participate. All stakeholders have to contribute to ensuring that new technological solutions are implemented and used, and that there is systematic focus on realising the gains from using ICT and broadband.

Source: Ministry of Science, Technology and Innovation ('[IT and Telecommunications Policy Report 2010](#))

National IT and Telecom Agency

According to the [National IT and Telecom Agency](#) (*IT- og Telestyrelsen*, NITA), one of the greatest challenges that Denmark is currently facing is the development of the competencies needed in the information society. NITA is working to meet this challenge and to further the ICT skills of the general population, as well as to further the accessibility of public and private ICT solutions.

eAccessibility

'Using technology! – Opportunities for social services' report

The Ministry of Social Affairs (*Socialministeriet*) published '[Using technology! – Opportunities for social services](#)' (*Brug teknologien! – muligheder på det sociale område*), a report which lays out the challenges faced by the social services sector in light of the elderly boom. Special attention needs to be paid to welfare technology (intelligent aids that assist disabled users in their daily lives). The report is intended to inspire all stakeholders to take initiatives in order to amass solid and broad-based practical experience with such technologies.

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.

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