

[ eInclusion in ]

# Spain

España



ICT & Ageing

Geographic Digital Divide

eAccessibility

# eInclusion

Cultural Diversity

Inclusive eGovernment

Digital Literacy & Competences

Country Profile

History

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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 Spain. 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):** 45 989.0 inhabitants (2010)

**GDP at market prices:** 1 051 151.0 million Euro (2009)

**GDP per inhabitant in PPS (Purchasing Power Standards, EU-27 = 100):** 104.0 (2009)

**GDP growth rate:** -3.6 % (2009)

**Inflation rate:** -0.2 % (2009)

**Unemployment rate:** 18.0 % (2009)

**Government debt/GDP:** 53.2 % (2009)

**Public balance (government deficit or surplus/GDP):** -11.2 % (2009)

*Source: Eurostat*

**Area:** 504 782 km<sup>2</sup>

**Capital city:** Madrid

**Official EU language:** Spanish

**Currency:** Euro

*Source: Europa website*

#### Information Society Indicators

**Percentage of households with Internet access:** 54 % (2009)

**Percentage of households with broadband connection:** 51 % (2009)

**Percentage of individuals regularly using the Internet:** 45 % (2009)

**Percentage of individuals using the Internet for uploading self-created content:** 8 % (2008)

**Percentage of individuals using the Internet for reading online newspapers/magazines:** 38 % (2009)

**Percentage of Individuals using the Internet for finding information about goods and services:** 47 % (2009)

**Percentage of Individuals using the Internet for seeking health-related information:** 32 % (2009)

**Percentage of individuals using the Internet for looking for a job or sending a job application:** 16 % (2009)

**Percentage of individuals using the Internet for doing an online course:** 7 % (2009)

**Percentage of individuals using the Internet for seeking information with the purpose of learning:** 29 % (2009)

**Percentage of: individuals using the Internet for interaction with public authorities:** obtaining information 28.6 %, downloading forms 15.7 %, returning filled forms 8.5 % (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

### May 2010

On 17 May 2010, during the World Internet Day, the 'Technology Volunteering' Programme proposed a series of activities carried out by volunteers in different locations of the Spanish Region of Castile and León. This initiative aimed at contributing to social transformation and at reducing inequalities in the access to and the use of new technologies. The various activities, proposed that day, sought to raise the citizens' awareness of the benefits, advantages and uses of the Internet while informing on the achievements of the 'Technology Volunteering' Programme, and thus fostering positive attitudes towards the respect of equal opportunities.

On Internet Day, the technology volunteers moderated Internet training workshops of 1.5 hours during which they presented the Internet Use Guide.

The 'Technology Volunteering' Programme is made up of altruist, dedicated and enthusiastic people who try to bring new technologies closer to the entire population, in particular to people at risk of social exclusion. The technology volunteers are people over 16 who assist both the teachers and the learners. Among other functions, the technology volunteers:

- support the development of the courses and new technology trainings delivered by the Regional Government of Castile and León, as well as workshops intended for people at risk of social exclusion;
- assist the users of the Public Access Internet Centres (*Cibercentros*) which do not have a facilitator/coordinator;
- provide the new technology trainings, promoted by the Regional Government of Castile and León.

The programme hence forms a key element of the Welfare State. It serves as a tool for social development, participation and integration, and furthermore supports and complements the action of the regional government in the field of new technology training, thus benefiting the entire society and maximising the resources available to the community.

### April 2010

For several weeks, the members of the [Association of the Women of the municipality of Santillana del Mar](#) (*Asociación de Mujeres de Santillana del Mar*) in the Spanish autonomous region of Cantabria have received **free IT training** to familiarise themselves with the web page of their association. The Department of Equality of the municipality collaborated with the association, placing the coordinator and the facilities of the Telecentre of Viveda at their disposal.

This initiative of introduction to new technologies stands among the core actions that the municipality promotes among its citizens under the 1st Plan for Equality between Men and Women (2008-2012). The City Council, through its Equality Department, supports all the proposals contributing to increasing women's participation in the municipality; that has been one of the main aims of the Association. In addition, the continuous support and technical advice of the municipality have greatly benefited the Association's actions towards this end.

The Association gathers women of various social backgrounds and ages who wish to develop individually and collectively with the entire community benefiting from their endeavours. Despite its recent creation (2009), the Association has been very dynamic and counts over 80 members. In order to reach their goals, the women of Santillana del Mar are aware that IT can be their best support.

In this regard, the City Council of Santillana del Mar indicated that the municipality has two Telecentres (Viveda and Santillana) where free IT classes for all levels often take place and which can prove highly interesting and useful for the citizens.

## February 2010

On 16 February 2010, each one of the best three initiatives promoting the inclusion of the adults in the Information Society in the autonomous region of Galicia received an 'Adults showing initiative' Award at the 2009 Galician regional edition of this competition (*'Mayores cON Iniciativa'* in Spanish).

This event was organised by the Foundation for the IT Development of Businesses and Society (*Fundación para el Desarrollo Infotecnológico de Empresas y Sociedad*, 'Fundetec'). The competition aimed to acknowledge and reward the efforts of the social actors towards including the adults in the Information Society in the region.

Over 260 adults in Galicia are gaining new - digital - skills thanks to these actions encouraging the use of the Internet and/or personal computers. The three winning initiatives are:

- 'Medicinal herbs in Allariz': a story of recovery and woman empowerment' (Municipality of Allariz) - 150 women living in rural areas have gathered information on the customs and traditions of the various medicinal herbs of the region and compiled them on a blog. In this manner, their knowledge will be conveyed to future generations.
- 'Ribadeo women heritage' (Ribadeo municipality's Dynamisation Centre) - This project has been implemented in various 'Municipal Dynamisation Centres' in the aim of preserving the heritage of Galician women and disclosing it to the next generations. In the case of Ribadeo, five women have shot several videos, each of which relates to a personal, social or cultural event of their life, accompanied with pictures and music.
- '*Bergantiños*: past and present' (Carballo Dynamisation Centre) - Through this initiative, a group of adults placed over a blog, a wealth of information (text, pictures) on their local memories and traditions.

Apart from receiving this regional award, these three initiatives represented Galicia at the second edition of the national awards held, on 25 February 2010, in Madrid. One of the Galician projects, 'Medicinal herbs in Allariz' has won the national prize.

## News 2009 and before

### 2009

- ▶ In *June 2009*, the Ministry of Development of the Spanish region of Castile and Leon organised, in collaboration with the region's Natural Heritage Foundation, a series of workshops focused on ICT and aimed at the SMEs and freelancers operating in rural areas of the region. The events organised under the framework of the 'Entrepreneurs Programme' (*Programa Emprendedores* in Spanish) intended to contribute to raising awareness and popularising new technologies among the public.

The campaign consisted in over 30 events in the approximately 20 contact points located in the various natural spaces of Castile and Leon (*Casas del Parque*) of the Natural Heritage Foundation. The events were designed for groups of over 15 businessmen and businesswomen. Participants were to receive practical training through 2 sessions of 4 hours each.

Among other issues, the following themes were to be addressed: the use of computers and of the various office automation tools, IT security, accessing public services and performing related actions online. The Regional Park of 'Sierra de Gredos', province of Ávila, hosted the first of those workshops on 9 and 10 June 2009.

- ▶ In *December 2009*, the portal of the Official Bulletin of the State (*Boletín Oficial del Estado*, BOE) - the official gazette of the central government in Spain - won the award of the most accessible public website at the TAW awards in the category of the central, regional and provincial governments.

The web page of the BOE has complied with the universality principle, in that its design has aimed to render the use of the portal easier, for as many people as possible, thus doing away with the need to adapt or redesign the portal following specific needs.

The TAW awards is an initiative of the Centre for the Development of Information and Communication Technologies in Asturias (*Centro Tecnológico de la Información y Comunicación*, CTIC) and it is supported by the Government of the Principality of Asturias. It was launched in 2005 with the purpose of acknowledging those websites that have been made more accessible to all users, regardless of their physical or mental impairments. The awards were given the name TAW; it stands for the acronym in Spanish of the *Web Accessibility Test* (*Test de Accesibilidad WEB*) which was developed by CTIC in order to assess Internet pages.

## 2008

- ▶ In *January 2008*, the Spanish Government spent € 10.6 million on promoting gender equality in the information society. Covering the period 2006-2007, the gender equality budget was part of 'Avanza Plan', Spain's € 3.4-billion drive to promote the information society and the use of technology in all walks of life. A total of 55 concrete activities to boost IT use by women had received financial support. More than 60 groups and associations had benefited, including organisations of women workers, women entrepreneurs, women media professionals, Roma and rural women.

Local **IT training courses** for women were part of the activities supported. A research project looked at the 'digital gender gap' in rural Catalonia. It set out to meet women's IT requirements in ways that would also be transferable to other rural areas. At the same time, it aimed to create awareness of the need to include a gender perspective in IT promotion campaigns.

A scheme in Galicia encouraged internet use by housewives as a way of bridging the information gap experienced by women who would not work outside home. An IT project for women in the olive-growing industry helped to broaden their employment prospects and their social horizons. Electronic networking by women entrepreneurs was promoted by another scheme, which also provided advice on consolidating and expanding their businesses.

Spain's IT gender equality pioneers compared notes at a meeting in Madrid last December, hosted by the Ministry of Industry, Tourism and Commerce (*Ministerio de Industria, Turismo y Comercio*, MITYC).

This was one of the first measures to be adopted under the new Law on Means of Promoting the Information Society, approved by the Spanish Parliament at the beginning of *January*. The aim of 'Networked Youth' (*Jóvenes en Red*) is to foster "the personal and social presence of our country's young people on the Internet". The scheme has been designed in co-operation with the companies assigning '.es' domains. *Red.es*, was also involved which is a publicly run enterprise tasked both with managing the '.es' register and with developing the information society in order to achieve "convergence with Europe and between Autonomous Communities".

A dedicated website was to enable the under-30s to register their '.es' domains, manage their own sites, and access information on the scheme and other topical issues. The one-year offer of free registration, website hosting, site-building tools and e-mail aimed to provide easy, intuitive ways of creating blogs, linking to social networks and building up personal multimedia albums. Each applicant was to be entitled to one domain only.

- ▶ In *June 2008*, eHealth and eInclusion was to provide some of the best growth opportunities for the Spanish electronic and ICT sectors, an industry observatory report says. Spain needed to develop a catalogue of “technological and service applications” enabling the “development of eHealth and eInclusion as a means of achieving health and social assistance systems capable of reacting to citizens’ needs in an intelligent and personalised way”: says the country’s Industrial Observatory for the Electronic, Information Technology and Telecommunications Sector (*Observatorio Industrial del Sector de Electrónica, Tecnologías de la Información y Telecomunicaciones*).

It pointed, in particular, to Spain’s Law on Dependency. This has laid the foundations of a National Dependency Care System which has financed services to those who depend on others due to illness, accidents or old age. Amongst other elements, the law provides for a ‘tele-assistance’ service which intended to “care for beneficiaries through the use of information and communication technologies supported by the necessary personal measures”, as “an immediate response to situations of emergency, insecurity, loneliness or isolation, with the aim of helping the users to remain in their habitual surroundings”.

To promote eHealth and eInclusion, the observatory called for the strengthening of [eVia](#), the Spanish Technological Platform of technologies for Health, Welfare and Social Cohesion, (*Plataforma Tecnológica Española de tecnologías para la Salud, El Bienestar y la Cohesión Social*), Spain’s technological platform for independent living and accessibility. It said that eVia achieved a good public-private balance and boosted co-operation between industry, social organisations and the public authorities.

- ▶ In *November 2008*, the Spanish Minister for Industry, Tourism and Trade and the Minister for Public Administrations (currently the [Minister of Presidency](#)) launched a new training programme aimed at promoting the use of services by the citizens of rural areas, so as to **break the digital divide**. This initiative intended to bring the citizens of rural areas closer to all three levels of Government in Spain by enabling them to benefit from the approximately 900 central, regional and local public services available on the eGovernment portal ‘[060.es](#)’.

Named ‘Telecentres training and revitalization plan’, the € 2 million project relied on the network of ‘[Red.es Telecentres](#)’, free Internet access points located across Spain’s rural areas. Over 500 Telecentres trainers, within 1 500 Telecentres, aimed to instruct the population on how to perform operations via the eGovernment portal and how to obtain information by electronic means. In this light, printed and audiovisual information material have been designed in a clear language, with practical examples of the citizens’ daily life aspects, so as to demonstrate the advantages of the portal.

Miguel Sebastián, Minister for Industry, Tourism and Trade stressed that following the successful deployment of Telecentres, his department would concentrate its efforts on the “valorisation of the infrastructure” by adding “services associated to the Telecentres”. He informed that the launch of the ‘Telecentres training and revitalisation plan’ was the first measure in this direction and that it was based on the training axis of the ‘Avanza2’ programme.

The plan was implemented in 304 Telecentres in the regions of Andalusia and Asturias, with 150 dedicated trainers involved. Later on, the plan was to focus on the regions of Castile and León, the Canary Islands and Murcia, and then on Galicia, the Valencian Community, Castile-La Mancha and Extremadura.

## 2007

- ▶ In *September 2007*, the Spanish Government placed € 16 million into ensuring social inclusion and gender equality within the information society.

Within Spain’s ‘Digital Citizenship’ (*Avanza Ciudadanía Digital*) budget line, three calls were issued for eInclusion projects. As a result, 37 dissemination and stimulation schemes received subsidies totalling € 8 million. These primarily aimed at children and rural areas. Another € 3 million went to 19 projects which aimed to promote gender equality within the information society. An additional 25

projects on the eInclusion of senior citizens and people with disabilities were to be funded with an additional € 5 million.

The projects in the first group aimed to promote internet and **broadband use** by rural or otherwise isolated populations, by informing them on the concrete benefits of new technology in everyday life. The subsidies were earmarked for public and private non profit organisations and local authorities. The gender equality projects set out to familiarise women with new technologies. The subsidies went to public or private non profit organisations. The schemes for older people and those with disabilities emphasised the usefulness of new technologies in achieving social integration, avoiding 'digital exclusion' and improving the quality of life.

'Digital Citizenship' (*Avanza Ciudadanía Digital*) worked to ensure that everyone would be able to become part of the information society. Its total budget that year was € 376 million – an 80 % increase over 2006.

During the same month (*September 2007*), a new European quality label for web accessibility was launched in a joint Belgian, French and Spanish initiative. Baptised 'Euracert' (European eAccessibility Certification), the new certification paved the way for a common European accessibility label. 'Euracert' was the first European quality label of its kind aimed at helping people with disabilities to access the Internet. Partners were confident that other countries would join this initiative and that it would be the starting point for the establishment of a single European accessibility label by 2010.

The idea was that businesses or public and private organisations interested in obtaining the 'Euracert' label had first to obtain the relevant national label for their country. They could then apply for the 'Euracert' label. These would be awarded following an initial audit phase in which the accessibility of the site would be evaluated in line with the international [Web Accessibility Initiative](#) (WAI) recommendations, and web users would be able to submit their opinions. The label was valid for two years.

'Euracert' aimed to stimulate the development of accessible sites by raising awareness and highlighting the positive impact of the label on branding and image. Thanks to the harmonisation done at the European level by specialised web accessibility organisations and with European Commission support, there are now resources on the subject considered as common references:

- international guidelines from Web Accessibility Initiative (WAI);
- a Unified Web Evaluation Methodology (UWEM); and
- a Conformity Assessment Schema (CEN Workshop Agreement).

The 'Euracert' label has been set up on the basis of these common references in order to allow recognition of labels issued to websites in different countries.

- ▶ In *October 2007*, an increasing number of people with disabilities regarded IT as vital to their autonomy said a new report in Spain, where a special budget promoted their inclusion in the information society.

Approx. 4 million people in Spain have had some form of disability at that time. The vast majority of them wanted to participate in mainstream society to the greatest extent possible, the report had found. The report continues stating that technological assistance should have been available as a form of social compensation for disability. It was also needed to promote barrier-free design in all fields. Standard-setting should have taken a more pragmatic approach to the development and application of accessibility criteria, and public officials' awareness of disability issues should have been raised. At the same time, people with disabilities need more information on what ICT can do for them. This applies particularly to the elderly, the chronically ill and those with intellectual disabilities.

Spain had been active in this field through its actions under the 'Citizen Citizenship' Programme (*Avanza Ciudadanía Digital*); a budget of € 5 million per year had already been spent on grants to non profit organisations promoting the integration of people with disabilities and elderly people into the information society.

During that time period (*October 2007*), the Spanish Government had also launched a campaign for gender equality within the information society. Promoting women's use of IT has been vital both to gender equality and to improving Spain's internet access rates, the government said. Signed on *6 October*, a new agreement between the ICT and equality ministries has provided for a coordinated approach to:

- concrete action to promote development and access to the information society for women, while increasing their use of ICT;
- exchange information on participation indicators;
- evaluate the financial assistance given for promotion schemes;
- exchange good practice examples, which should be made available to the public;
- organise a congress, during 2007, to publicise the action taken within the context of the agreement and the results achieved;
- advertise other public initiatives aimed at promoting gender equality and women's access to the information society, especially for women who face particular difficulties in participating;
- promote audio-visual media coverage of women in line with constitutional, non-discriminatory principles and values.

The agreement will run until 31 December 2010.

- ▶ In *November 2007*, a new Spanish [Royal Decree 1494/2007](#) set the criteria for guaranteeing accessibility and non-discrimination in telecommunications, the information society and social communications media.

Measures affecting IT services included a requirement that the websites of public administrations and other publicly financed sites, had to be fully accessible. Concretely, they had to comply with priorities 1 and 2 of the Spanish standard UNE 139803:2004. The sites had to be compliant by 31 December 2008. There have also been accessibility criteria for IT hardware and software, on-line services and electronic signatures.

On the accessibility of telecommunications, the decree has broadened the existing universal service requirements. Telephone directories have had to be available on-line, and the sites concerned to apply the same accessibility standards as those of the public administration. Stricter criteria for the design of public pay-phones intended to ensure greater accessibility. Operators would be required to offer a sufficient range of fixed-line phones catering for the various types of disability.

On social communication, the text has contained provisions on the use of subtitling, audio descriptions and sign language in the audio-visual media, on accessible design of digital TV sets and on the accessibility of public information campaigns.

The decree follows up on Spain's Law on Equal Opportunities, Non-Discrimination and Universal Accessibility ([51/2003](#)), which stipulated that the government should set the basic conditions for accessibility.

## 2005

eGovernment services offered by the Spanish central administration were insufficiently accessible, according to the survey of *July 2005*, commissioned by the '[Infoaccessibility Observatory](#) (*Observatorio de la Infoaccesibilidad*) of the organisation Disc@pnet'. Even though the Spanish Government had improved the accessibility levels of its eGovernment services; the objective of ensuring full accessibility to disabled people by the end of 2005 had seemed to be out of reach. Indeed, the study carried out by a team of consultants from [Fundosa Teleservicios for Disc@pnet](#) (an organisation co-financed by [Fundación ONCE](#) and the [European Regional Development Fund](#) (ERDF) that promoted the social and professional inclusion of disabled people) had revealed that most central government websites had not met a wide range of accessibility criteria.

The study analysed a sample of 15 eGovernment services – ranging from purely informative web pages to fully transactional applications – from a technical viewpoint, each service scoring against a set of predefined accessibility criteria. Only 4 services reached a score over 50 % and over half of the services scored less than 25 %. On average, services scored about 34 %.

In addition to this technical analysis, the eServices were tested by users with different types of disabilities. This allowed the authors to observe the difficulties that such users have experienced when trying to access each of the services. Disabled users were also asked to rate their satisfaction level with each service. In general, the outcome of this rating exercise was more positive than that of the technical analysis. According to the study, this could be explained by the fact that, when facing accessibility barriers, disabled users would develop 'alternative capabilities' to reach their goals.

In overall, the study revealed that, in spite of some recent progress, much has remained to be done by the Spanish Government in terms of eAccessibility. In this respect, the positive example of the [Social Security](#) administration – which achieved a technical score of approx. 95 % for one of its services – had to be used as a reference for the development of inclusive eGovernment, the study said.

## 2004

The Mayor of the Spanish capital city unveiled an original project to promote broadband access to the Internet by legally enforcing the provision of relevant infrastructure as a 'public utility' in the city. Speaking at the launch of a new public network of 21 free Internet access centres on *3 February 2004*, Mayor Alberto Ruiz-Gallardón compared Internet access to other 'basic needs' such as having electricity and water. In order to turn this vision into reality, the Mayor said he would amend or create new legislation to make broadband infrastructure a mandatory feature for any new house built in the city.

According to a Mayor's advisor, a feasibility study had already been underway and had to be concluded by mid-2004. Even though the Mayor hoped to have the new regulatory requirements approved that year and to enter into force in 2005, no specific technical details were revealed at this stage.

According to the local authorities, 40 % of the city's population had Internet access, which was significantly above the national average of 28 % but below many European capitals. However, the number of broadband Internet connections remained low in Madrid.

## 2003

- ▶ The Spanish Council of Ministers on *21 March 2003* gave the green light for the signature of a co-operation agreement between the Ministry of Agriculture, Fisheries and Food (MAPA) at that time, the Spanish Federation of Municipalities (*Federación Española de Municipios y Provincias*, FEMP) and the State-owned company Red.es for the implementation of the 'Rural Public Access Points' programme.

This programme, which was to be implemented over a five-year period, was to provide broadband access to rural areas that had not been covered by conventional commercial technologies such as ADSL, cable or Wi-Fi. MAPA was to provide funding to participating municipalities for up to € 2 million, and the FEMP was to install computers and manage Internet services for them. Red.es was to install and manage the necessary equipment for public access points in these areas, and provide related support and funding.

- ▶ According to a research, in *April 2003*, most Spanish public sector websites had been insufficiently accessible to users with disabilities. 'Emergia', a consultancy specialised in website accessibility, assessed the compliance of 21 central, regional and local government websites with a series of 9 basic accessibility criteria. The results had shown that none of the surveyed websites had fully complied with all 9 criteria and that the average percentage of compliance had only reached 34 %.

In overall, the results had been better for websites of regional authorities (Autonomous Regions), with 49 % compliance, than for those of large cities (31.5 %) and for central government (only 22 %). The flagship eGovernment portal [Administracion.es](#) had reached a score of 22 %, while the

websites of the Tax administration (*Agencia Tributaria*) and the Social Security administration (*Seguridad Social*), two of the most advanced administrations for the implementation of electronic services, had only reached 11 %.

The accessibility issues, most frequently encountered, were the impossible act to understand a content without colours, the absence of alternative formats for non-text elements, the presence of meaningless contents in text-only versions, the lack of control on the visualisation of texts, the absence of clear descriptive titles in frames, the absence of site maps and the obligation to use scripts, applets and other objects for visualising pages correctly.

## eInclusion Strategy

### Main strategic objectives and principles

#### The National Strategy for eInclusion

The 'Avanza Plan', consists of two versions covering the period 2006-2012. It is a plan for the 'Development of the Information Society and for the convergence with Europe between autonomous regions and cities', approved by the Spanish Council of Ministers. It is also part of the National Reforms Programme, designed by the Spanish Government to comply with the EU Lisbon Strategy.

Placed under the responsibility of the Ministry for Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio*, MITYC) - the competent authority for the Development of the Information Society - and oriented towards the adequate use of ICTs, it aims to the rise of an economic growth model based on the increase of competitiveness and productivity, and on social and regional equality thus improving citizens' welfare and quality of life.

#### The 'Avanza Plan'

The 'Avanza Plan' (2006-2008) was launched in November 2005 in response to 'i2010 – A European Information Society for growth and employment'. It was designed to improve, through the information society and knowledge, Spain's economic productivity and the welfare of all Spanish citizens. It comprises a series of specific programmes focused on citizens, companies, digital context, digital public services and eAdministration.

Its five main action fields are:

- ▶ Households and citizen inclusion: measures to be included to ensure a widespread use of ICTs among households, thus increasing citizens' opportunities to participate in public life ('Digital Citizenship': *Avanza Ciudadanía Digital*).
- ▶ Competitiveness and innovation: measures to encourage the development of the ICT sector in Spain.
- ▶ Education within the Digital Era: incorporate ICTs in training and education.
- ▶ Public eServices: measures to be taken for better and user-friendly public services that will improve the quality of life of the citizens.
- ▶ New digital context: deploy and extend a broadband infrastructure that will connect the entire country, enhance citizens' trust in the use of new technologies, provide advance security mechanisms, and promote the creation of new digital content and new knowledge centres.

#### The 'Avanza2 Plan'

'Avanza2 Plan' (2009-2012), the second phase of the Plan for the development of the information society was presented in January 2009. It aimed to consolidate the milestones achieved in the first phase of the plan while fostering the demand for ICT and fortifying the ICT industry.

It focuses upon the following five lines of action:

- ▶ Development of the ICT sector: support companies in developing ICT products, processes, applications, content and services participating in the establishment of the future Internet and of digital content.
- ▶ ICT training: massively include citizens and companies in the information society, especially persons with a disability and the elderly.

- ▶ Public eServices: guarantee the rights of citizens and businesses to interact electronically with the government; improve the quality of public services.
- ▶ Infrastructure and trust: develop and establish the information society at local level to improve the delivery of ePublic services to citizens and businesses.
- ▶ Security and accessibility: foster citizens' and businesses' trust in ICT, and enhance accessibility of eServices.

## 'Avanza Plan' Programme's lines of action

The 'Avanza Plan' report, published on 21 January 2010, has defined a set of priority areas for action, called programmes, which are actions being carried out in cooperation with the autonomous regions and cities, through calls for help and by signing cooperation agreements with other entities.

The strategies mentioned below aim to facilitate the involvement of the following eInclusion groups, thus enhancing their well-being in their daily lives.

The Information and Communications Technologies (ICT) must be considered as an opportunity and a tool to improve social cohesion. One of the priorities of the 'Avanza Plan' is to extend the benefits of the information society to all citizens, especially to those groups at risk of digital exclusion.

## People with disabilities, Children and the Elderly

The area of 'Digital Citizenship' of the 'Avanza Plan' comprises actions for the effective incorporation of people with disabilities, assisting them in overcoming their limitations and thus facilitating their social integration. Another priority of the 'Avanza Plan' focuses on extending the benefits of the information society to all people regardless of their age, laying special stress to the children and the elderly.

The area of 'Digital Citizenship' of the 'Avanza Plan' therefore includes actions for the effective incorporation of the children showing them the importance of IT training and of collaborating with others within the information society. With similar actions, it also targets the effective incorporation of the elderly allowing them to open new communication channels, thus fostering the social integration of that group.

The 'Avanza Plan' comprises the following lines of action adopted in order to assist the people with disabilities, the children and the elderly to familiarise themselves with the information society through:

- ▶ extending the use of the Internet and of new technologies through dissemination programmes;
- ▶ improving training and raising awareness on the use of ICT;
- ▶ creating social networks that would allow the share of experiences;
- ▶ providing computer equipment.

## Broadband

The European Commission has set up, as one of its key priorities, the availability and widespread use of broadband networks across the EU. It considers it as a key factor that fosters the development of the information society, the growth and the employment, especially in the less developed and often remote areas.

The 'Avanza Plan' has specific programmes for the dissemination of broadband with the aim of providing broadband services throughout the Spanish territory, in technical and economic conditions similar to those found in the urban zones.

The 'Avanza Plan' has adopted the following lines of action in relation to broadband:

- ▶ programmes focusing on the awareness and dissemination of broadband benefits;
- ▶ deployment of the necessary infrastructure in order to increase and improve broadband coverage;

- ▶ development of innovative broadband projects.

## Telecentres

Telecentres are Internet public access points in rural or under development areas ensuring to the users free and high quality broadband connection with the aim of effectively integrating themselves into the information society.

The 'Avanza Plan' has encouraged the deployment of a Telecentre network throughout the national Spanish territory and has launched various initiatives to promote these access points. The objective of this programme is to improve the quality of life in rural areas and at the most disadvantaged urban areas, promoting initiatives through the Internet.

The 'Avanza Plan' has adopted the following actions regarding Telecentres:

- ▶ deployment of infrastructure;
- ▶ promotion of Telecentres to intensify the knowledge and train the new users.

## Education

Education, which is based upon traditional models, is being transformed in an information society oriented education in which the Information and Communication Technologies are intensely used.

The 'Avanza Plan' promotes 'Education in the Digital Era', incorporating ICT in the educational process and integrating all the actors involved in it. The objective is to achieve a harmonious development of different schools providing quality services, avoiding discrepancies on students' access to the benefits of the information society.

The 'Avanza Plan' has adopted the following actions regarding the development of the information society in education:

- ▶ infrastructure designed to allow access to broadband Internet and the creation of local area networks;
- ▶ provision of computer equipment.

## eInclusion Legal Framework

### Main legal texts impacting on the development of eInclusion

#### Electronic Access to Public Services Legislation

##### Act on Citizens' Electronic Access to Public Services

The Law on Citizens' Electronic Access to Public Services ([Royal Decree 11/2007](#)) was adopted on 22 June 2007. This law officially recognises the right of the citizens to communicate electronically with public administrations at all times. State bodies have to facilitate this through diverse channels, such as the Internet, television or any related technology. This new right is to be respected by all public administrations from 31 December 2009 onwards. This law furthermore stipulates that all transactions conducted by electronic means will be as valid as if they are conducted by traditional means.

This law aims to enhance efficiency and promote transparency and 'closeness' to the citizen. It introduces the principle of technological neutrality giving to the citizens and the administrations the right to choose the technological alternatives they wish to use. In addition, it establishes the basic principles for the use of information technology between citizens and the administration, as well as among public administrations. In this respect, a key clause explicitly states that public bodies should use information technologies while "ensuring the availability, accessibility, integrity, authenticity, confidentiality and conservation of the data, information and services that they manage in the exercise of their competences."

#### eAccessibility / ICT & Ageing Legislations

Policy approaches based on equality/anti-discrimination legislation have considerable potential in the eAccessibility field. Such approaches can provide people with disabilities – individually or collectively – with the right to seek redress if they are confronted with inaccessible ICT equipment or services, either in relation to ICT-based goods and services in a general sense, or in relation to specific usage contexts.

##### Law on measures to promote the information society

The [Law 56/2007](#) of 28 December, on measures to promote the information society, modifies the Law on information society services and electronic commerce by establishing an eAccessibility obligation. It states the following: "As from 31 December 2008, the web pages of the Public Administrations will satisfy at least the average level of content accessibility criteria generally acknowledged. As an exception, this obligation will not apply when the technological solution supporting a functionality or service does not allow for such accessibility".

Furthermore, the [Royal Decree 1494/2007](#) provides that "the information available on the web pages of the public administrations will have to be available to the **elderly** and to **people with disabilities** with a minimal level of accessibility that fulfils the priorities 1 and 2 of the standard UNE 139803:2004."

##### Law on information society services and electronic commerce

Legislation in relation to website accessibility was first established in Law 34/2002. This was later affirmed and expanded in the anti-discrimination Law 51/2003 and then reaffirmed in relation to public websites in the Royal Decree 1494/2007, on accessibility to the information society.

Law 34/2002 of 11 July deals with the accessibility to information provided by electronic means, including all public authorities' web pages. It states that public authorities should adopt the required

measures in order to have their internet content accessible for **disabled** or **elderly** people. It also states that the adoption of norms on accessibility will be promoted for the service providers and hardware/software producers in order to ease access to digital content for disabled or elderly people. The law includes an obligation to fulfil generally recognised accessibility criteria, without mentioning W3C, and even though it does not oblige, it indicates that the application of the law should be based on a standard, in this case, the Spanish Standard of Computer Accessibility.

Article 8 of Law 34/2002 furthermore provides for the possibility of actions in a case where any service provider contravenes the principles of the legislation. The [Ministry of Labour and Immigration](#) (*Ministerio de Trabajo e Inmigración*) has also established (by Royal Decree) a new Arbitration Process for disabled people, adopting the existing model of the Consumption Arbitration System. The 2002 Law had fixed a deadline of 31st December 2005 for the accessibility of public websites.

#### Law on Equal Opportunities, Non-Discrimination and Universal Accessibility for citizens with special needs

Law [51/2003](#), the Law on Equal Opportunities, Non-Discrimination and Universal Accessibility for Persons with special needs, builds on Law 34/2002 and establishes the basic conditions of accessibility and non-discrimination for access and use of technologies, products and services related to the information society and social communications media.

Article 10 establishes the basic conditions for access and use of ICT technologies, products and services and of any means of public communication including public websites. One of the major changes from Law 34/2002 is the shift regarding the burden of proof – it is now the defendants who need to prove their innocence in case of alleged discrimination.

The importance of Law 51/2003 is also related to the fact that it addresses all environments, products and services that need to be open, accessible and practicable for all. It includes clear deadlines for the realisation of the necessary adaptations. Its execution is laid down in the National Accessibility Action Plan 2004-2012 and the Action Plan for people with disabilities 2003-2007.

Law 51/2003 on Equal Opportunities, Non-Discrimination and Universal Accessibility of People with Disabilities transposes the EU Employment Directive but is also a more ambitious framework law that links accessibility to design-for-all (DFA) and independent living. It establishes the basic accessibility conditions, without prejudice to regions' competences. The law covers telecoms, information society and urban public spaces; infrastructures, buildings and transport; goods, services for the public and relations with public administrations.

Law 51/2003 also makes extensive provisions for positive action measures: "the measures to make adequate the physical, social and attitudinal environment to the specific necessities of persons with disability, that in an efficient and practical way and without taking on a disproportionate burden, facilitate the accessibility or participation of a person with disability in an equality of conditions to those of other citizens."

#### Infringements and sanctions on Law 51/2003

The [Law 49/2007](#) of 26 December establishes the regime of infractions and penalties in the area of equality of opportunities. Non discriminatory and universal accessibility for people with disabilities, provides a definition of infractions (three levels: weak, severe and very severe) for several cases and defines economic penalties.

The law complements any penalties at the regional level as the nation's constitution assigns to national government the responsibility for "basic conditions for ensuring the equality of Spaniards in the exercise of their rights and the fulfilment of their constitutional duties." It sets out the general guidelines for penalties at the regional level. It is also based on European Community provisions that require national governments to implement penalties for non-compliance with anti-discrimination legislation.

### Regulation on access to technologies, products and services related to information and communication society

The [Royal Decree 1494/2007](#) of November 12th, which is linked to the equality Law 51/2003, imposes further obligations on telecoms operators. The Decree concerns the basic access conditions for people with disabilities to technologies, products and services related to the information society and media. Under the Royal Decree, telecoms operators and service providers must make "reasonable adjustments to enable access by disabled people to customer service." For those with vision impairments, telecoms operators must provide subscribers with visual impairment, at their request, in accessible formats and conditions, contracts, invoices, and other information supplied to all subscribers" (Article 3).

The Decree also sets out additional obligations on the Universal Service Obligation designated provider to:

- ▶ submit plans for the adaptation of public payphones for ease of accessibility for disabled users;
- ▶ guarantee a sufficient supply of special terminals tailored to different types of disabilities, such as text telephones, video phones or solutions for people with vision impairments;
- ▶ provide access to telephone directories across the Internet in an accessible format.

With regard to mobile phone services, Article 4 of the Royal Decree sets out that the Government will, through the Centre for Personal Autonomy and Technical Assistance, "promote the existence of a sufficient supply and technologically updated special mobile terminals adapted to different types of disabilities."

Article 5 of the Royal Decree 1494/2007 provides regulation related to Law 51/2003 by specifying a mandatory minimum level of accessibility for government websites of "priorities 1 and 2" of the UNE Standard 139803:2004 (referring to WCAG Levels A and AA). Under this same article, eligibility for public funding for the design or maintenance of public websites will be dependent on compliance with the UNE standard. Government websites must also provide a complaint's mechanism so that users can report difficulties with accessibility.

## eCommunications Legislation

### General Telecommunications Laws 11/1998 and 32/2003

The General Telecommunications Law 11/1998 introduces measures for disabled people in order to receive the same services with the rest of the users. It establishes a set of obligations on the operators and a set of rights for the consumer. According to this law, operators must offer universal access for people with special needs. This law defines the 'Universal Telecommunication service' as an open and dynamic concept, so that the Government has the right to assess and expand its meaning according to the development of the information society.

The new General Telecommunications [Law 32/2003](#) was adopted in Spain on 5 November 2003; it replaced the former law 11/1998 and transposes into national law the EU directives of 2002, i.e the Framework Directive, the Access and Interconnection Directive and the Universal Service Directive.

One of its main objectives and principles is to define the interests and satisfy the needs of people with a disability. Those users should have access to fixed phone services and other aspects of universal service under the same conditions, as for users without disabilities.

The regulation that develops the 32/2003 Act imposes, amongst other, the following specific obligations to operators:

- ▶ ensure sufficient number and technologically updated special terminals adapted to the various types of disability;
- ▶ make the 'yellow pages' guide available in an accessible format and include 10 free monthly calls for blind people;

- ▶ make invoices and contractual conditions available in Braille.

Related to universal service, it settles that citizens with disabilities should be taken into account with special prices or other options. Public telephone must accomplish requirements of accessibility and individuals with disabilities may be able to benefit from election of operator.

## eSignature Legislation

### Law on Electronic Signature

The [Law 59/2003](#) of December 2003 on electronic signature replaced a Royal Decree of 1999 on digital signatures. All the electronic signature services, procedures and devices should be accessible for **individuals with disabilities** and the **elderly**.

## eInclusion Actors

### Main roles and responsibilities

#### National eInclusion

##### Policy/Strategy

###### **Ministry of the Presidency** (*Ministerio de la Presidencia*)

The Ministry of the Presidency has replaced the Ministry of Public Administrations in its functions and is responsible for the development and implementation of eGovernment in Spain.

###### **Ministry of Industry, Tourism and Trade** (*Ministerio de Industria, Turismo y Comercio, MITYC*)

The Ministry of Industry, Tourism and Trade is responsible for conducting the 'Avanza Plan' – now in its second phase, 'Avanza2' (2009-2012) – which is aimed at reaching the objectives of the European Commission's **i2010** initiative. Among the key objectives of this plan is the full development of the eInclusion aspects of the information society.

###### **State Secretariat of Telecommunications and the Information Society (SETSI)**

The Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio, MITYC*) comprises a State Secretariat of Telecommunications and the Information Society (SETSI) which hosts a dedicated **Directorate General for the Development of the Information Society** and sets the strategic priorities.

##### Coordination

###### **State Secretariat of Telecommunications and the Information Society (SETSI)**

This body which is part of the Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio, MITYC*) coordinates the information society activities of the Directorate-General for Telecommunications and Information Technologies (DGTTI), the General Department for Development of the Information Society (DGDSI) and of 'Red.es'.

##### Implementation

###### **Ministry of the Presidency** (*Ministerio de la Presidencia*)

The Ministry of the Presidency is responsible for the implementation of cross-departmental and infrastructure projects falling within its area of competence.

###### **Ministry of Industry, Tourism and Trade** (*Ministerio de Industria, Turismo y Comercio, MITYC*)

The Ministry of Industry, Tourism and Trade is the Central Government Department responsible for proposing and carrying out Government policy, among others, in the areas of industrial development and innovation, tourism, telecommunications, audiovisual media and the development of the information society, actively participating in ICT development in the public sector.

###### **Red.es**

Red.es is a State-owned company which is part of the State Secretariat of Telecommunications and the Information Society (SETSI), a public business entity attached to the Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio, MITYC*).

It is responsible for driving the information society in Spain and for carrying out projects in line with the strategic priorities set by the State Secretariat of Telecommunications and the Information Society

(SETSI). It works closely with Regional Communities, Regional Councils, Local Entities and the private sector in the area of information and communication technologies (ICT).

Besides encouraging the use of technology and increasing competitiveness and economic growth, it also aims at improving citizens' quality of life, and promoting social and regional equality.

## Support

### Red.es

As described above, this entity actively supports and participates in the implementation of the national ICT strategies.

### Ministry of Education (*Ministerio de Educación*)

The Ministry of Education is responsible for inclusive education, diversity and multiculturalism, and through [Action Plan 2010-2011](#) has to seek the means and resources in order to ensure the full inclusion of students with special needs who need educational support. More precisely, the educational objective 12 of the Action Plan 2010-2011 comprises measures that support the growth of people with special educational needs within the educational system by providing access to new technologies, content and learning materials, among other various constructive educational activities.

## 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

Spain has currently an overall population of 45.3 million inhabitants of which 16.7 % are aged 65 years and above, and it is expected to increase to up to 18.2 % by 2020 (view details on the [demographic context](#)). Considerable activity has been focused upon ICT-based support for the elderly. More precisely, it concerns social alarm services, advanced forms of telecare, telehealth and smart homes developments, among others.

##### Drivers & Barriers

Social alarms are considered as an important element of the social care policy as is their public provision and financing. The entire demographic change that EU Member States undergo together with the changes occurring in family structure and size lead to the demand of care services that otherwise would have been taken care of by the family. The increasing number of working women and the migration of the population from rural to urban areas constitute two important factors that influence the demand of social alarms.

Geographical barriers are linked to technological barriers meaning that in many cases mountainous municipalities do not have yet access to such services. In such rural communities where traditional family structure still exists, demand for such assistive services is not high.

Regarding telecare (tele-assistance), it seems that its use has not expanded and that it is closely linked to the launch of the digital household. The market and the technological development are the factors that affect the use of these technologies.

The market factors are related to cost, quality, security requirements, public policy, expectations and acceptability. They can be listed in order of importance, as follows:

- ▶ increase in demand for home security and social care;
- ▶ increasing focus in public policy on home care, cost reduction and service quality improvement;
- ▶ increasing awareness of consumers and providers regarding the right to accessible tele-assistance services through the use of public financing and/or out-sourcing of private providers;
- ▶ conclusive clinical and social studies regarding the advantages of tele-assistance for citizens and professionals;
- ▶ motivation and training of the professionals and institutions responsible for the care of citizens at home.

Technological factors include those linked to cost and access to technology (devices, networks and applications), as well as those linked to interoperability. These include:

- ▶ reducing the cost of tele-assistance devices, services and applications;
- ▶ increase in user friendliness and accessibility of tele-assistance equipment and services, particularly for the elderly;
- ▶ convergence between tele-assistance terminals and networks, and the information and communication technologies (land-line telephones, mobile devices, TV and Internet in particular);
- ▶ advances regarding the interoperability, standardisation and maintenance of equipment.

The main reported barriers are:

- ▶ the resistance of large organisations to change work practices to incorporate new routines and management models;
- ▶ the capacity to personalise, maintain and update the systems based on the different and changing needs;
- ▶ social and professional acceptance which is a barrier in the sense that some groups may see these services as a step backwards rather than an opportunity for social inclusion.

There has only been very limited to date implementation and use of home telehealth in Spain. Support for hospital-in-the-home has been one key objective in the initiatives taken. The efforts to date have mainly been driven by local initiatives by hospitals and others.

The lack of policy focus and of financing have been reported to be barriers. More generally, the absence of a clear 'business case' seems to be a factor limiting implementation.

### Actions to support ICT & Ageing

#### Social alarms

Social alarms or telealarms and telecare or tele-assistance are common forms of ICT-based technology for independent living and are available throughout Spain. Their use is estimated at between 3 % and 3.5 % of the population aged 65 years and above. The main providers are municipalities under the Autonomous Regions of Spain, which subsidise that service. The Law on the Promotion of Personal Autonomy and Care of Those in Dependent Situations (39/2006) defines and sets the remit for telealarm and tele-assistance services. They aim to ensure that vulnerable groups, such as the elderly, can continue living in their normal environment without needing to change setting, thus 'dodging' any personal, social and economic costs that their potential change of environment could cause. That also favours their social and family networks rendering easier any immediate intervention, necessary in case of a crisis. As for charging/reimbursement, each Autonomous Region determines the price of the service provided and the requirements for users to qualify for the discounts available.

#### Telecare

Tele-assistance (telecare) services are nation-wide services in principle; they are, however, installed in case of great need. It is estimated that less than 0.5 % of telealarm users actually use those services. Tele-assistance is an extension of the telealarm service; tele-assistance services are allocated according to the degree of dependence of the users, rather than their age. Where the service provider is a public entity, the service costs the same as the basic telealarm.

#### Smart homes/AT

Even though many of the home automation (domotics) technologies available have been developed and tested, their implementation at homes and for the independent living of the elderly is limited. The promotion of useful applications of domotics is being addressed in the efforts of various associations, such as [CEDOM](#) and [ASIMELEC](#) through the Smart Home Multi-Sector Commission, whose aim is to facilitate the installation of domotics so as to be both useful and in demand by users.

*Source: ICT & Ageing – European Study on Users, Markets and Technologies*

#### Programme for the inclusion of the 'Seniors'

The programme 'Seniors' (*Mayores*) aims to incorporate this group in the information society to achieve the social integration of the elderly, avoiding social exclusion and improving the quality of their lives.

The budget line for the disabled includes:

- ▶ € 3.5 million for dissemination activities
- ▶ € 2.9 million for training
- ▶ € 15.9 million for the creation of social networks

- ▶ € 4.2 million for the provision of computer equipment.

In this line, the Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio, MITYC*) launched a call for aid to non-profit entities in 2009, called '[Internet without barriers](#)' (*Internet sin Barreras*).

### Portal for Seniors

The [Portal for Seniors](#) (*Portal Mayores*) is a free access scientific portal specialising in Gerontology and Geriatrics, developed by the High Council for Scientific Investigations (*Consejo Superior de Investigaciones Cientificas, CSIS*), and the Institute for the Elderly and Social Services (*Instituto de Mayores y Servicios Sociales, IMSERSO*).

Its main objectives are to:

- ▶ create a virtual information service for elderly people;
- ▶ establish an electronic platform to support the scientific and professional community;
- ▶ develop content and value-added services for the promotion of R&D and innovation in the field of Gerontology and Geriatrics;
- ▶ implement web information services in line with international standards and quality assurance management;
- ▶ encourage collaboration with other organisations to provide integrated services.

## Geographic Digital Divide

### Status of Common Access to Electronic Content and Services

Spain, through digital technologies such as broadband Internet access, endeavours to provide the necessary support to its remote and disadvantaged regions so as to have their share in the benefits of the Spanish economic growth. Digital technologies such as broadband internet access play an important part in narrowing disparities between regions and in promoting social and economic cohesion. A considerable progress has been achieved in digital technologies, namely, broadband coverage. This is shown in the data described below:

- ▶ In 2003, broadband covered 80 % of the population whereas in 2009, 99 % of the Spanish population was able to connect to broadband Internet.
- ▶ In 2003, 2 % of the homes had broadband connection; in 2009, 51.3 % (over 7.9 million homes) were broadband connected.
- ▶ In 2003, there was no rural broadband. Through the extension plan, in 2009, 8.3 million people in rural areas had access to broadband.
- ▶ In 2003, ICT equipment was not easy to acquire. In 2009, approx. 240 000 families had a broadband connected computer thanks to 0 % loans offered with no guarantee, or commission.
- ▶ Broadband lines have gone from 2.1 million in 2003 to 9.6 million in October 2009.
- ▶ Approx. 12 million people have access to the Internet thanks to 3 000 telecentres and 2 500 connected libraries.
- ▶ As stated in IDATE - Broadband in Europe report - December 2008, Spain was the leader across Europe in fixed broadband speed: 83 % of total broadband lines have had a speed higher than 2 Mbps.
- ▶ According to the 'Broadband access in the EU' - European Commission - November 2008, Spain was also the leader in the EU in terms of high speed Internet mobile penetration. 19.5 % of the Spanish population were mobile broadband users, in contrast to 6.9 % which was the EU average.

- ▶ Mobile phone lines increased from 37.2 million in 2003 to 54.2 million lines in September 2009, increasing penetration over 26pp (from 87.1 % to 113.6 %), above the EU penetration rates of 111.8 %.

Source: *The Information Society in Spain - Avanza Plan 2*

#### Actions to support Common Access to Electronic Content and Services

##### **National Programme for Broadband Deployment in rural and remote areas**

The '[National Programme for Broadband Deployment in rural and remote areas](#)' (*Programa de Extensión de la Banda Ancha*, PEBA) was a national funding programme promoted by the Spanish Ministry of Industry, Tourism and Commerce (*Ministerio de Industria, Turismo y Comercio*, MITYC) between 2005 and 2008 aiming, at national level, to extend the coverage of broadband access to rural and remote areas providing similar broadband conditions to those available in urban areas.

At regional level, several initiatives were launched in collaboration with the Autonomous Regions and the Federation of Municipalities and Provinces in order to finance actions for the provision of high speed telecommunications infrastructures and to bring the benefits of broadband to the people who reside in rural and remote areas. Those actions at national and regional levels intended to encourage investment in those areas.

PEBA aimed to extend broadband to cover 100 % of the residents of population centres, already covering 99 % of them in December 2008. Its target was to benefit 8 356 552 citizens in 5 706 municipalities and 58 444 population centres. The two phases of the programme involved 14 autonomous regions and 2 autonomous cities.

In addition, the communication campaign 'Broadband for all' was launched to raise awareness on the advantages of broadband, as broadband Internet connections enable faster technological adoption. The ultimate goal was to have achieved 100 % broadband Internet coverage in 2010.

##### **'Avanza Infrastructures' programme (2008-2011)**

The '[Avanza Infrastructures' programme](#)' (*Subprograma Avanza Infraestructuras*) (2008-2011) is the continuation of the PEBA programme and aims at providing full broadband coverage, improved bandwidth and network capacity to small population centres in rural and remote areas in order to welcome investment, and foster economic development and the integration of citizens in the information society.

Lines of action:

Five lines of action compose the broadband strategy under the first call of this funding programme:

- ▶ F1: Development of broadband and other telecommunication services in rural and remote areas: projects intended to develop access infrastructures in order to satisfy the demand for broadband connection from the population of remote and rural areas.
- ▶ F2: High-capacity rural networks: projects intended to develop rural backbone networks.
- ▶ F3: Pilot projects for advanced telecommunication services: projects intended to test in rural areas those innovative broadband technologies that are being used in urban areas.
- ▶ F4: Access to networks for local public services: projects intended to develop public networks so that citizens can have access to Public Administration services.
- ▶ F5: Actions for awareness-raising: projects intended to disseminate broadband advantages and opportunities so that digital divide can be narrowed.

##### **'Telecentres' programme of Red.es**

The '[Telecentres](#)' programme of Red.es (*Programa Telecentros de Red.es*) is the result of the signing of an agreement between the Ministry of Agriculture, Fisheries and Food (*Ministerio de Agricultura, Pesca y Alimentación*), the Spanish Federation of Municipalities (*Federación Española de Municipios*) and Red.es.

Those actions took place in the period 2005-2008 and aimed at facilitating the access to new technologies in rural and remote areas in order to foster the active and effective participation of that population in the information society.

To achieve this, all existing networks in Spain were given the necessary material, the technical and human resources to provide training courses on the use of new technologies, as well as consulting services for the provision of public services through electronic means.

The 'Telecentres' programme in collaboration with 14 Spanish autonomous regions (38 provinces) has deployed 2 931 telecentres throughout Spain. It was estimated that approx. 5.2 million people have benefited from that programme.

### The 'Digital Cities' programme

The 'Digital Cities' programme (*Ciudades Digitales*) aims at the promotion and implementation of the information society in local environments, being based on telecommunications networks at high speed.

#### 'Teruel Digital City' project

The 'Teruel Digital City' (*Teruel Ciudad Digital*) project is part of the 'Digital Cities' programme of the Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio*, MITYC) with the aim of promoting the information society in local environments. This project is the result of a collaboration between the MITYC, the Regional Government of Aragon (*Gobierno de Aragón*), the City Council of Teruel (*Ayuntamiento de Teruel*) and the Provincial Council of Teruel (*Diputación Provincial de Teruel*) and provides for the introduction of eAdministration, eCommerce, teleworking, eLearning telemedicine and applications in culture, tourism and entertainment, among other, all these based on high speed telecommunications networks.

#### 'Health Online' programme

The 'Health Online' programme (*Programa Sanidad en línea*) is part of the 'Avanza Plan' of the Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio*, MITYC) and has jointly been developed with the Ministry of Health and Social Policy (*Ministerio de Sanidad y Política Social*) and Red.es. The programme's objective is to contribute to the modernisation of the National Health system (*Sistema Nacional de Salud*) and facilitate the development and provision of services through the Internet and the new technologies, favouring the improvement of quality in health care services and ensuring geographical mobility of patients across the country. The objective for 2008 was the provision of access to electronic health services in the 17 autonomous regions and the 2 autonomous cities.

#### More actions

- ▶ Annual calls (2006-2010) for non-profit entities to enhance the use of the Internet and participation in the information society with actions in rural areas.
- ▶ Annual calls (2006-2010) for local entities 'Digital Cities II' (*Ciudades Digitales II*) to support inclusive eGovernment.
- ▶ (Interest free) loans for citizens, students and young people to enable them to purchase ICT equipment with broadband access.

## eAccessibility

### Status of eAccessibility

Spain has been progressing in the field of eAccessibility through numerous projects and actions for the effective incorporation of people with disabilities to the information society, aiming at facilitating their social integration and overcoming any accessibility limitations they may encounter.

According to a survey compiled by Spain's IT development agency 'Red.es' and the Vodafone Foundation in a number of regions, it was indicatively found that deaf people have had the highest adoption rates for mobile telephony (98.4 %) and the Internet (69.8 %). The figures for those with motor disabilities

were 89.4 % for mobile phones and 66.8 % for the Internet. For blind people, they were 91.6 % and 46.2 % respectively.

### Actions towards eAccessibility

#### Programme for the inclusion of the 'Disabled'

The programme for the inclusion of the 'Disabled' (*Discapacitados*) intends to incorporate this group in the information society to achieve their social integration avoiding social exclusion and improving the quality of their lives.

The budget line for the disabled includes:

- ▶ € 8.6 million for dissemination activities
- ▶ € 5.3 million for training
- ▶ € 26 million for the creation of social networks
- ▶ € 6.3 million for the provision of computer equipment.

In this line, the Ministry of Industry, Tourism and Trade (*Ministerio de Industria, Turismo y Comercio*, MITYC) launched a call for aid to non-profit entities in 2009, called 'Internet without barriers' (*Internet sin Barreras*).

#### 'Retardis' project

The 'Telefónica' Foundation has set up a territorial network of computers adapted to persons with disabilities in order to bring them closer to the information society. Through this project, there were installed, throughout Spain, computers adapted to the four most common types of disability: speech impairment; blindness and visual impairment; deafness and hearing loss; learning deficiency and alternative communication.

'Retadis' (*Proyecto Retardis*) consists of a network of 38 computers in the 17 autonomous regions and the cities of Ceuta and Melilla. Each location of the various associations involved in this project has been equipped with two computers and a technical support portal that allows users to consult and receive advice. Each regional centre has been installed at the headquarters of the two associations most relevant to each autonomous region, where users can also use an ADSL line that allows Internet access and communication with other centres. 'Retadis' also has the technical support of the State Centre for Personal Autonomy and Technical Aid (*Centro Estatal de Autonomía Personal y Ayudas Técnicas*, CEAPAT).

It is a step closer to universal access to the information society and the reduction of digital divide for citizens with disabilities.

#### 'Accessible Street Directory of Madrid' project

The 'Accessible Street Directory of Madrid' project (*Guía Urbana Accessible*) is an application that allows people with disabilities taking advantage of using an up-to-date directory - similar to a conventional directory - and calculating the best itinerary to their destination. This innovative online service can also be used by blind people, using a special software (e.g. Yaws) to listen to the description provided by the Street Directory. There is no other such street directory in the Internet. The system fulfils the Web Accessibility Initiative (WAI) level Double-A standards and the Accessibility Guideline Web Content 1.0 (WCAG 1.0).

The [street directory](#) has been very well received by the organisations of disable people, as it gives the possibility to the blind and the disabled to use a geographical system to know the city of Madrid and find all the main places and transportations. That has an important impact in that specific social group, offering a tool that facilitates its social integration.

The development of Accessible Street Directory is quite complex. The information is geographical, numeric and graphic, and needs to be transformed into a textual description. For example, if a blind person wishes to know the address of a restaurant and the public transportation to use, the system has

to find the restaurant, locate the address in the map and through spatial analysis find all the entities of interest, i.e. the public transportations (bus and underground). Then the system has to transform the graphic information (the map information) into textual information under the standard AA in order to be read vocally.

The innovation of this project has been the ability to transform geographical information into textual information and the way in which the system allows moving through the map without needing to use the mouse.

The benefit of such technology is that all types of Geographical Information Systems can be built and used by disabled and blind people, thus facilitating their social integration.

#### More actions

- ▶ Annual calls for non-profit entities to support pilot projects, to remove barriers in the use of the Internet, to improve their quality of life, to increase the use of intranets among entities with the same concern and to improve eCapacity for individuals with disabilities.
- ▶ Special loans/subsidies for people with disabilities to purchase ICT equipment.
- ▶ Training of public employees in designing accessible web pages.

## Digital Literacy and Competences

### Status on Digital Literacy and Competences

The data mentioned below demonstrates the progress made in Spain in this sector:

- ▶ The 'Internet in the classroom' has been implemented in more than 20 000 schools, through digital infrastructures and content.
- ▶ 99 % of the schools in Spain have received ICT equipment and have Internet connection.
- ▶ 95 % of the schools are broadband connected.
- ▶ 90 % of teachers have received ICT training.
- ▶ 6 out of 10 teachers use digital teaching materials and multimedia in their teaching.

Source: *The Information Society in Spain - Avanza Plan 2*

### Actions towards stimulating Digital Literacy and Competences

#### 'Citizens and Society Networking'

The project '[Citizens and Society Networking](#)' (*Ciudadanos y Sociedad en Red*) aims at placing at the disposal of all citizens new information, so as to ensure that the use of new technologies becomes a tool of progress for personal and social transformation.

Its objectives are to:

- ▶ Prevent the emergence of social groups at risk of digital exclusion, generating the conditions for equal access and raising awareness on the opportunities on personal and social development.
- ▶ Establish a digital literacy programme based on certain knowledge of technology and altering the traditional way of learning in order to become more flexible, open and adaptable to groups at risk of digital and social exclusion.
- ▶ Maintain an information system that would allow us to know the differences in access, attitude, knowledge and opinions of the various groups at risk of digital exclusion, and of the citizens in general.

This project is aimed at citizens, especially at groups that for geographical (rural areas) or social (the elderly, the disabled, women, immigrants and young people) reasons, they face great difficulties to access ICT and receive training in a digital environment.

The following are indicative actions of the project:

- ▶ digital literacy workshops in telecentres for groups at risk of socio-digital exclusion laying emphasis not only on the instrumental aspect of learning new technologies, but also on their communicative and social potential;
- ▶ specific courses of new ICT tools for frequent users;
- ▶ weekly seminars to inform on new technologies, their use and potential;
- ▶ ICT information days for groups at risk of social exclusion;
- ▶ training plan and awareness campaigns to promote the social-digital aspect of the animator's role who is responsible for the digital literacy activities in the Telecentre Network.

### **'Internet in the classroom' programme**

The **'Internet in the classroom'** programme (*Programa Internet en el Aula*) aims to advance the use of ICT as an educational tool that strengthens the role that new technologies play.

To achieve this, the programme seeks to ensure the effective use of the computer equipment in schools and improve it with new equipment, remove the barriers to the use of ICT in schools, enhance communication between the families and schools, and perform specific actions targeting students with special educational needs.

This programme has been implemented in a total of 8 396 schools across Spain having installed 89 979 computers, 23 415 video projectors, interactive (white)boards and 7 515 wireless access points in classrooms. The total number of classrooms involved in this programme is 71 979 and the number of students having benefited from those actions reaches 2 347 089.

### **'Andalusia's Digital Commitment' project**

In the **'Andalusia Digital Commitment'** project (*Andalucía compromiso digital*), new technologies will be incorporated as new social values to facilitate the familiarisation, promotion and spreading of the services and benefits of the information society to the population, in general, and to high-risk groups, in particular. Digital inclusion today focuses on social inclusion, enabling new technologies to help achieve a better and more equitable society for both men and women. The Andalusia Digital Commitment is, in essence, a new social commitment, the digital commitment of the Andalusian society guiding development and progress towards an information and knowledge-based society.

The approach to the project is based on four pillars:

- ▶ Identify and create an inventory of available public resources; identify shortcomings or gaps to be filled; and complement both elements with sufficient technical support.
- ▶ Create a network of trained 'digital volunteers' to achieve the aims of the project.
- ▶ Generate and exploit tools for training and digital mobilisation processes specific to existing projects, programmes or actions. They would be the 'warehouse' of resources for the volunteers.
- ▶ Identify innovation nodes with regard to digital inclusion and eEquality - generating, collecting and sharing knowledge of innovative elements.

### **More actions**

- ▶ Agreements have been concluded with the Spanish autonomous regions to finance measures related to the information society and the digital citizen.
- ▶ (Interest free) loans for citizens, students and young people to enable them to purchase ICT equipment with broadband access.

## eInclusion and Cultural Diversity

### Actions towards eInclusion and Cultural Diversity

#### 'Online Personal Care lines' (*Líneas de Atención Personalizada Online*)

The Foundation 'PROTEGELES' has launched [online helplines](#) aimed at younger persons in order to face problems that they have developed, namely, bulimia and anorexia, bullying and cyber addictions. The creation of those helplines enables younger individuals to face a number of problems that develop in the ICT environment. In this manner, 'PROTEGELES' uses the facilities provided by ICT to address and solve these problems.

'PROTEGELES' is a pioneer in the development of helplines over the Internet. At present, the foundation's psychologists provide psychological support, through new technologies (Internet, email and instant messaging) to numerous children and adolescents of various cultural backgrounds.

## Inclusive eGovernment

### Actions towards Inclusive eGovernment

#### Digital Library

The Ministry of Culture (*Ministerio de Cultura*), without prejudice to the powers of the autonomous regions, in accordance with the guidelines and recommendations of the European Union and international organisations in the field, promotes the creation of [digital libraries](#) under the following criteria:

- ▶ the online accessibility as a precondition for maximising the benefits from the extraction of pertinent information for citizens, researchers and companies;
- ▶ the digitisation of analogue collections for their wider use in the information society;
- ▶ the preservation and storage so as to ensure that future generations have access to digital material and in order to prevent loss of precious content.

To develop and modernise the [library services](#) so as to enable a greater number of citizens to take advantage of them, the Ministry of Culture (*Ministerio de Cultura*), has directed its actions to making available to public libraries a set of applications used to provide information on network on its collections, activities and services.

# 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'.

Spain is involved in the following FP7 projects:

#### 1. **Online mobile communities to facilitate the social inclusion of young marginalized people** (COMELN)

**Research area:** ICT-2007.7.2 Accessible and inclusive ICT

**Project start date:** [2008-09-01]

**Project web site:** <http://www.comein-project.eu>

#### 2. **Gaming technology platform for social reintegration of marginalised youth** (REPLAY)

**Research area:** ICT-2007.7.2 Accessible and inclusive ICT

**Project start date:** [2008-07-01]

#### 3. **BCIs with rapid automated interfaces for nonexperts** (BRAIN)

**Title:** BCIs with rapid automated interfaces for nonexperts

**Research area:** ICT-2007.7.2 Accessible and inclusive ICT

**Project start date:** [2008-09-01]

4. [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:** [2008-09-01]

5. [Integrated cognitive assistive and domotic companion robotic systems for ability and security \(COMPANIONABLE\)](#)

**Research area:** ICT-2007.7.1 ICT and ageing

**Project start date:** [2008-01-01]

6. [Open architecture for accessible services integration and standardisation \(OASIS\)](#)

**Research area:** ICT-2007.7.1 ICT and ageing

**Project start date:** [2008-01-01]

7. [Open accessibility everywhere: groundwork, infrastructure, standards \(AEGIS\)](#)

**Research area:** ICT-2007.7.2 Accessible and inclusive ICT

**Project start date:** [2008-09-01]

8. [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:** [2008-09-01]

9. [Accessibility and usability validation framework for AAL interaction design process \(VAALID\)](#)

**Research area:** ICT-2007.7.2 Accessible and inclusive ICT

**Project start date:** [2008-05-01]

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

**Research area:** ICT-2007.7.1 ICT and ageing

**Project start date:** [2008-01-01]

11. [HERMES - Cognitive care and guidance for active aging \(HERMES\)](#)

**Research area:** ICT-2007.7.1 ICT and ageing

**Project start date:** [2008-01-01]

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

**Research area:** ICT-2007.7.1 ICT and ageing

**Project start date:** [2008-02-01]

13. [Extending professional active life \(EPAL\)](#)

**Research area:** ICT-2007.7.1 ICT and ageing

**Project start date:** [2008-02-01]

### **European Commission - eInclusion Practice**

eInclusion practice ([epractice.eu](http://epractice.eu)) is an information and exchange service for European professionals.

The eInclusion factsheets are one of the [epractice.eu](http://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.

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

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