> Foreword

Information and communication technologies (ICT) play a key role in all our daily lives, in our work, education, public services and in our homes. More and more new and complex services can be accessed electronically through a range of devices. Yet access, service design, personal capacity, trust, skills, willingness and awareness can be significant barriers to some of the very people who could benefit most from these services. For Europe to realise the objectives of its renewed Lisbon agenda for jobs and growth, then the benefits of ICT must be accessible to all.

Promoting an inclusive information society in Europe is one of the three key pillars of the i2010 strategy, the European Information Society for Growth and Jobs. i2010 proposes a wide range of measures for harnessing the potential of ICT to promote inclusion, deliver better public services and improve quality of life. Among many other measures, i2010 plans to launch a flagship initiative in 2007 on Independent Living for the Ageing Society, and to work towards a European eInclusion initiative for 2008.

Member States' commitment to the eInclusion agenda was evident at a high-level meeting in Riga (Latvia) in June 2006, which brought together ministers from 34 European countries. They endorsed a pan-European drive to use ICT to help people to overcome economic, social, educational, territorial or disability-related disadvantages. eInclusion targets agreed by ministers include halving the gap in internet usage by groups at risk of exclusion, boosting broadband coverage in Europe to at least 90%, stepping up actions to reduce gaps in digital literacy and e-skills by 2008, and making all public websites accessible by 2010.

We welcome this brochure as an illustration of how innovation in ICT is contributing to an inclusive knowledge-based economy and society.

Viviane Reding

European Commissioner for
Information Society and Media

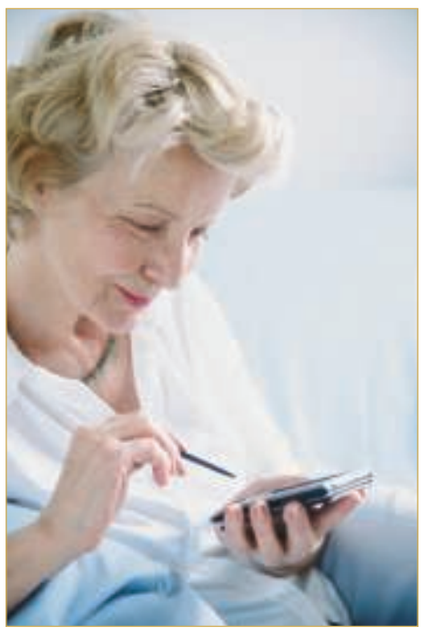
Vladimír Spidla

European Commissioner for Employment,
Social Affairs and Equal Opportunities

> Challenges for eInclusion

Under the Amsterdam Treaty, all European citizens have the right to participate fully and without discrimination in society. As the knowledge-based economy develops, the increasing use of leading-edge technologies in all areas of life can present major challenges for some people and introduce new threats to sustained growth and social stability. To reach the goal of a knowledgeable and sustainable society for all, it is essential to make sure new technologies and systems are accessible to all. We have to apply technology to the task of genuinely empowering citizens to play a full role in society.

There is a risk that, despite their many benefits, new technologies could set people apart, create new barriers, and increase social exclusion. Specific attention should be given to those groups in society that are at high risk of being excluded, due to a wide variety of reasons such as age, gender, disability, literacy, and culture. Many of these groups have common difficulties in getting employment and fewer educational opportunities.



Information and communication technologies (ICT) can help bridge this "digital divide". For example, learning new skills using ICT can help people get a job, improving their self esteem as well as enhancing their participation in society.

Already today, access to technology and the services which technology can deliver is unequally distributed. Disabled and elderly persons, in particular, are at great risk of being digitally marginalised. Demographic trends show that by 2010 about 25% of the European population will be aged over 60, rising to 30% by 2020.

Correspondingly, the proportion of persons with disabilities will rise from about 14% today to around 20% by 2020, many of whom will be confronted with multiple minor disabilities. Thus, potentially, many more citizens may suffer exclusion as the digital age progresses.

eAccessibility – ensuring access to technologies for people with a wide spectrum of disabilities and special needs – is a prerequisite for eInclusion. It addresses how new technologies and services can be used to overcome barriers, compensate or restore individuals' functions and empower in particular older persons and people with disabilities to realise their full potential.

New developments in technology provide Europe with a real chance to turn the risk of a digital divide into 'digital cohesion' and 'digital opportunities' across the Union, and so bring the benefits of a knowledge-based society to all segments of the population.

> Inclusion Policy

The Lisbon Council in 2000 agreed to make a decisive impact on the eradication of poverty and social exclusion by 2010. Building a more inclusive European Union is an essential element in achieving the Union's ten year strategic goal of sustained economic growth, more and better jobs and greater social cohesion.

Member States coordinate their policies for combating poverty and social exclusion on the basis of a process of policy exchanges and mutual learning known as the Open Method of Coordination (OMC). Their National Action Plans against poverty and social exclusion set out concrete steps to improve access to ICT and the opportunities new technologies can provide. New Member States have outlined their key challenges in the area of eInclusion in their Joint Inclusion Memorandum.

From 2006, three policy areas provide the framework for this process:

- Eradicating poverty and social exclusion.
- Adequate and sustainable pensions in the light of accelerated demographic ageing.
- Accessible, high quality and sustainable health and long-term care.

To empower people with disabilities and to facilitate their access to employment and integration into society, the European Disability Strategy and its Action Plan 2004-2010 (*Equal Opportunities for People with Disabilities*) promotes horizontal attention to disability issues in all EU policies (known as "mainstreaming"). An update of the EU Disability Action Plan was published in November 2005 as part of the Communication *Situation of Disabled People in the Enlarged European Union: the European Action Plan 2006-2007*.

The European Social Fund (ESF), in particular through its EQUAL initiative for human resources, tests new ways of tackling discrimination and inequality experienced by those in work and those looking for a job. Supporting the adaptability of firms and employees to structural economic change and encouraging the use of information technology and other new technologies is one of its priorities.

The new ESF regulation for 2007-2013, which provides a common framework for ESF interventions throughout the Union, is more focused than the previous regulation. Under both the 'Convergence' and the 'Regional Competitiveness and Employment' objectives, the new ESF will provide support for anticipating and managing economic and social change. Interventions will be directed in four key areas: increasing adaptability of workers and enterprises; enhancing access to employment and participation in the labour market; reinforcing social inclusion by combating discrimination and facilitating access to the labour market for disadvantaged people; and promoting partnership for reform in the fields of employment and inclusion.

Finally, gender inclusion is an important aspect of the information society. The EU's commitment with respect to economic and social empowerment of women in the context of a more widespread use of ICT is reflected in Resolutions from the Council (*Social and Human Capital Building*) and the European Parliament (*Women in the New Information Society*).

Further European policies and activities relating to general employment and social policies are described in the *Information Society Policy Link* brochure on Employment.

> eInclusion: Where the Information Society meets Inclusion

Information and communication technologies (ICT) make a major contribution to social inclusion. Assistive technologies can help compensate for functional deficits and improve the quality of life for people with disabilities. Similarly, ICT-based solutions can help the elderly and those with special needs to live more independent lives. And by increasing workers' flexibility and adaptability, ICT can help people from all at-risk groups integrate into the labour market.

eInclusion ('e' standing for electronic) aims *to prevent the risks of 'digital exclusion'*; in other words to ensure that disadvantaged people are not left behind and to avoid new forms of exclusion due to lack of digital literacy or of internet access. At the same time, eInclusion also means *tapping new 'digital opportunities'* for the inclusion of socially disadvantaged people and less-favoured areas. The information society has the potential to distribute knowledge resources more equally and to offer new job opportunities, for instance by overcoming the traditional barriers of mobility and geographical distance.

Policy for eInclusion

eInclusion featured prominently in the eEurope initiative. eEurope 2002 set a number of targets on eAccessibility, while under the eEurope 2005 Action Plan the emphasis shifted to integrating accessibility criteria into mainstream goods, services and information flows. Specific eInclusion actions under the eEurope roadmap included: the continued follow-up of the accessibility of public websites, development of a public procurement toolkit for accessibility, and a European curriculum in design-for-all. Implementation was supported through the eAccessibility Expert Group, comprising representatives from Member States.

The eEurope 2005 Action Plan has now been superseded by the i2010 strategy, which forms the information society component of the renewed Lisbon strategy to boost European competitiveness. Inclusion is one of the three pillars of the i2010 initiative, with the aim of building an information society that is inclusive, provides high quality public services and promotes quality of life.

Among many other measures, i2010 proposes to launch in 2007 a flagship initiative on Independent Living for the Ageing Society, and to work towards a European eInclusion initiative for 2008. Alongside longer term research on eInclusion under the 7th Framework Programme, an initiative on Ambient Assisted Living (AAL) is being jointly proposed by the Commission and certain Member States.

In September 2005 the Commission adopted a Communication on eAccessibility aimed at mobilising industry and the Member States towards Europe-wide harmonised solutions. The Communication advocates the use of a series of policy approaches not yet widely used in Europe, as well as the strengthening and continuation of several activities already underway. Among other measures, it proposes: using public procurement contracts to improve accessibility requirements in the ICT domain; developing a certification scheme for accessible ICT products and services; and making better use of the 'eAccessibility potential' of existing legislation, in particular the Electronic Communications Framework.

Member States are increasingly active on the eInclusion agenda and gave their backing at a high-level meeting in Riga, Latvia in June 2006, which brought together ministers from 34 European countries.

Information Society Activities

Research and Development

In the Sixth Framework Programme (FP6), relevant research was addressed primarily through IST's **strategic objective on eInclusion**. This adopted a holistic, multidisciplinary approach, focusing on real world needs and concerns of users in all aspects of their lives.

Research focused on two inter-related aspects: barrier-free technologies to make consumer products and systems, including public services, accessible to the widest possible range of users and situations; and empowering technologies that meet the specific needs of people with disabilities and older citizens. In addition, eInclusion aspects of the information society were the subject of a specific task in FP6 Priority 8 (Research for Support to Policies).

Research is undertaken in close cooperation with policy and regulatory activities. These include the Inclusion pillar of i2010, the eInclusion horizontal topic of the eEurope 2005 Action Plan, the work of the Communication Committee on the Telecom Legislation Package through its Inclusive Communication sub-group (INCOM), and related standardisation activities.

eInclusion research is tightly related to the Ambient Assisted Living (AAL) cross-programme theme, which aims to extend the time during which elderly people can live independently in their preferred environment with the support of ICTs. FP6 support to the AAL theme has provided a bridge to the proposed Article 169 action on this subject under FP7 (see www.aal169.org).

eInclusion will be an important topic in FP7, where research will address questions such as:

- *Understanding the challenge*: Socio-economic research on the role technology can play in addressing individuals' and communities' needs.
- *Use of ICT to provide relevant content and increase eSkills*: How ICT can be used to provide the content needed for improving social capital and citizenship in a democratic society.
- *Ensuring equal access and participation*: Removal and prevention of technological barriers through the application of design-for-all methods and tools, and new assistive technologies.
- *Services and tools to foster the inclusion process*: How can ICT facilitate and support the work of professionals for training and counselling, capacity building, and support informal carers, family and mediators.
- *Horizontal issues*: Such as identification of ICT policies to be used as examples of good practice, benchmarking and indicators, and cooperation across Member States and internationally.

Other Activities

The **eTEN** Programme is concerned with the large-scale roll-out of public interest services, primarily in support of the i2010 initiative. In this context, eTEN projects address eInclusion as a main action line. Activities focus on the specific needs of people with disabilities, the elderly and socially disadvantaged. eInclusion is also considered in terms of overcoming socio-economic, geographic and cultural barriers, and preventing risks of digital exclusion. Services include developments in relation to eGovernment, education, employment, new forms of business and commerce, and delivery of assistive technology services.

For the future, and with particular reference to the i2010 strategy, the main such instrument will be the **ICT Policy Support Programme**, which is part of the Competitiveness and Innovation Framework Programme (CIP). With a budget of €728 million, it will stimulate the new converging markets for electronic networks, media content and digital technologies, test new solutions to speed up the deployment of electronic services, and support modernisation of the European public sector.

In addition, levers like public procurement and standardisation are considered particularly effective for accelerating the deployment of new, inclusive ICT-based solutions. Work here includes common eAccessibility requirements and conformance testing for goods and services.

> Inclusion through Digital Literacy

As familiarity with ICT becomes a core competence for everyday living, actions are necessary to ensure that certain groups in society don't get left behind.

Policy Context

Ensuring that everyone has the necessary skills, competences, experiences and attitudes to make effective use of ICT is emerging as one of the biggest challenges to the knowledge society. This goes beyond basic ICT skills and reflects a person's ability to use ICT for critical thinking, creativity, innovation and other high cognitive skills. Not surprisingly, then, a Recommendation published in November 2005 as part of the Commission's lifelong learning policy identified digital competence as one of eight core competences needed by current-day Europeans.

Although Europe enjoys one of the highest levels of education and has the necessary investment capacity, it still lags far behind its international competitors in the use of the new information and communication technologies. It is essential for Europe to intensify its efforts, so that all Europeans have the opportunities to acquire the new skills and knowledge they need for personal and professional development, and for active participation in a knowledge-driven society.

Social inclusion emerges as a key issue. There is a need to support and encourage those who would like to work but face some form of disability or exclusion barrier to get into the job market. ICT can help tailor and deliver learning to people regardless of cultural background wherever they are at home, at work, in libraries or in community centres. But this must be done in a way which reduces inequalities and provides learning opportunities for all.

Hence, improving digital literacy is a cornerstone of both EU education and training policies, and the i2010 initiative to boost Europe's digital economy. Both contribute to the renewed Lisbon strategy for growth and jobs. These policies highlight the key role of life-long learning together with innovation and research in the triangle of knowledge, and the growing need for digital literacy as an essential competence in the know-ledge society and skills for the workplace. Support for digital literacy and lifelong learning is also a key focus of a proposed European initiative for eInclusion, under i2010, which is planned for 2008.

Contribution of ICT

ICT can support remote access to the resources of the information society, and can deliver interactive educational materials to any location. An imaginative use of the latest education and cognitive research can provide services and learning materials for people who have not been comfortable with traditional methods of delivery. Various projects funded by the European Commission address the learning needs of different target groups.

For instance, **SEN-IST-NET**, an IST-FP5 project, made major contributions to practice and policy in this field by setting up a thematic network on ICT for children, young people and adults with special educational needs. The project brought together ICT researchers, practitioners and policy-makers, providing a common platform for discussion and debate. Among the results were two databases, both now available as part of SEN-IST-NET's web portal. The Resource Guide features articles in 13 languages on everything from classroom practice to early intervention. More comprehensive articles are available in the Virtual Library, in English, French and German, together with extensive case studies of the innovative use of ICT for special needs education. Also active in the policy domain, the project set up a special interest group to discuss and follow up recent EU initiatives relating to special needs education.

Rehabilitation of Offenders through Digital Learning

Prisons are very tough environments for ICT for reasons such as access, data protection, social isolation and poor motivation, yet they contain members of target groups where social exclusion is highly likely. **HERO**, a project under IST-FP5, focused on the rehabilitation of first offenders between 18 and 25 years old (typically awaiting sentence or on remand) and prisoners due for release.

It developed and evaluated two classes of ICT applications and services for digital learning. These offer a learning environment which empowers first offenders to manage their health and educational needs, while prisoners due for release can make preparations for life 'on the outside'. The educational application is supplemented by skills auditing and skills assessment tools, which connect user skills profiles with online job opportunities, websites and back-to-work initiatives.

Focusing on data encryption, authentication and data security, HERO delivers services primarily through the internet and also digital TV to accommodate variability in user environments. It was piloted at eight sites in Germany, Greece, Italy and the UK.

ICT for Emotional and Social Learning

Learning to interact with and get along with others is a key part of a child's development. **eCIRCUS**, a project under IST-FP6, is exploring the use of ICT to support social and emotional learning based on virtual role-play.

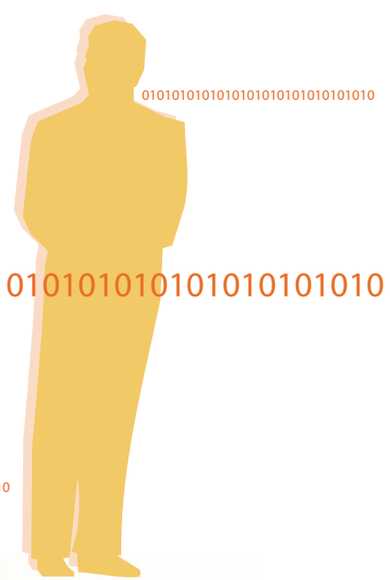
A demonstrator called FearNot! has been developed that enables children to explore physical and relational bullying issues and coping strategies through interactions with empathic virtual characters. Children interact with the characters in a variety of scenarios designed to explore bullying behaviour. Evaluations have been carried out with over 1,000 children to consider how they engage with and react to the characters and scenarios.

A second demonstrator, known as ORIENT, focuses on refugee children in schools. In this application, child users interact with the on-screen characters in a number of different ways so as to create inter-cultural empathy.

Mobile Learning for Young People

Some young adults most in need of education and training have little inclination to engage with conventional learning locations and processes. **m-learning**, an IST-FP5 project, investigated the feasibility of delivering micro-modules of online learning using devices most familiar to young people: mobile phones, palmtop computers and other personal digital devices.

It targeted disaffected learners, aged 16 to 24, who had not succeeded in the education system and in many cases were unemployed or homeless. Using subjects of interest to them, such as football, music or practical help with health, the learning content was designed to develop their literacy and numeracy skills. Following trials with young adults in Italy, Sweden and the UK, the results are being further developed under national projects.



> PROJECT DETAILS

eCIRCUS - Education through Characters with Emotional Intelligence and Role-playing Capabilities that Understand Social Interaction
ruth@macs.hw.ac.uk • www.e-circus.org

HERO - Health Promotion and Educational Support for the Rehabilitation of Offenders
j.cullen@tavinstitute.org

m-learning - Mobile Communications Technologies for Young Adults Learning and Skills Development
www.m-learning.org

SEN-IST-NET - European Network of Excellence in Information Society Technologies for Special Educational Needs
jg@european-agency.org • www.senist.net

> Pushing Back the Boundaries in eAccessibility

Research and deployment activities closely support EU policies on eAccessibility and eInclusion.

Policy Context

All citizens have the right to benefit from new opportunities that the information society offers. People with disabilities and older persons sometimes experience difficulties in accessing these new technologies and services, as some barriers can be inadvertently created by the information society itself. Accessibility problems can also be created by specific environment or social conditions. On the other hand, information technologies and services can greatly help overcome other environmental or social barriers encountered by people with disabilities and older persons.

EU efforts for eAccessibility are now addressed under the eInclusion pillar of i2010, the European Information Society strategy. They build on earlier actions under the eEurope 2002 eAccessibility targets as well as wider eInclusion measures under the eEurope 2005 Action Plan.

To push forward on the eInclusion agenda, in September 2005 the Commission adopted a Communication aimed at improving coordination between eAccessibility initiatives in the Member States. The Communication advocates the use of a series of policy approaches not yet widely used in Europe, as well as strengthening and continuing several activities that are already underway.

The Member States are urged to make use of three policy levers available to them by:

- Using public procurement contracts to improve accessibility requirements in the ICT domain.
- Exploring the possible benefits of certification schemes for accessible products and services. and
- Making better use of the "eAccessibility potential" of existing legislation.

The Communication recommends the continuation of various activities at EU level. These include: the development, implementation and use of eAccessibility requirements and standards; promotion and take-up of the Design-for-All concept; web accessibility of online public services; and setting targets to benchmark accessibility and monitor progress so as to have European data comparable across Member States.

Following the Communication, a study was launched to identify measures that have a significant positive impact on eAccessibility to support the Community eAccessibility strategy. It will assess the situation in Europe and measure the evolution and the impact of European measures.

Support for eAccessibility Policies

The Communication emphasizes that research remains a key instrument for investigating new technological solutions to address the needs of the elderly and people with disabilities. It is a fundamental element on the road towards an accessible information society for all.

Setting the agenda for this scientific work is critical. It is necessary to bring together a wide range of expertise so as to ensure that policies are well informed and take into account the latest technological developments. **eINCLUSION@EU**, an IST-FP6 project, helped fulfil this role. Running until mid-2006, the project gave scientific support to the European Union's eInclusion policies. It studied innovative ways to reach out to those who are excluded and could benefit from closer contact with computers as tools. The strategies developed focused both on non-discrimination (eInclusion) and on helping those who have physical difficulties accessing services (eAccessibility).

The project's key conclusion was that a better theoretical and operational framework is needed to measure eInclusion accurately. Today's monitoring approaches largely lack indicators directed towards monitoring eInclusion-related impacts. To further promote eInclusion policy, a Europe-wide monitoring approach is needed which not only considers users and non-users but also distinguishes different categories of users. Such an approach should address both the demand side and the supply side of ICT goods and services. The project also put forward numerous recommendations for innovative and practicable policy strategies and implementation measures with realistic goals.

A European Approach to Web Accessibility

The Web Accessibility Initiative (WAI) guidelines, created by the World Wide Web Consortium (W3C) provide a voluntary code on the design and structuring of websites. These have been widely endorsed by industry, research, governments and disability organisations and have been promoted under the eEurope Action Plan.

Implementation of the WAI was initially supported through IST-FP5 projects, including **WAI-TIES**. Under FP6 these activities have been continued through the Web Accessibility Benchmarking (WAB) Cluster, a grouping of three research projects focusing on a harmonized European methodology, based on W3C/WAI, for evaluation and benchmarking of websites.

Support-EAM proposed a quality mark to assess the accessibility of web sites against the W3C/WAI recommendations, a key target under the eEurope 2005 Action Plan. The resulting specification was published in 2006 as CEN Workshop Agreement No 15554 on "*Specifications for a Web Accessibility Conformity Assessment Scheme and a Web Accessibility Quality Mark*".

The **EIAO** project is establishing the technical basis for a European Internet Accessibility Observatory. Data on the accessibility of European websites will be collected automatically, frequently updated and made available online from a data warehouse. Better information on web accessibility metrics and deviations from standards will provide a basis for policymaking and legislation, raise awareness of e-accessibility requirements, and provide important inputs for the development of new standards

A third project, **BenToWeb** focused on production test suites for new evaluation modules and tools that satisfy some of the WAI recommendations and which were difficult to automate.

> PROJECT DETAILS

BENTOWEB - Benchmarking Tools for the Web
bika@fit.fraunhofer.de • http://bentoweb.org/

EIAO - European Internet Accessibility Observatory
mikael.snaprud@hia.no • www.eiao.net/organisation

eINCLUSION@EU - Strengthening eInclusion and eAccessibility across Europe
www.einclusion-eu.org

Support-EAM - Supporting the Creation of an eAccessibility Mark
dominique.burger@snv.jussieu.fr. • www.support-eam.org

WAB - Web Accessibility Benchmarking
info@accessibility.nl • www.wabcluster.org

WAI-TIES - Web Accessibility Initiative: Training, Implementation, Evaluation and Support
danield@w3.org • www.w3.org/WAI/TIES

> Independent Living for an Ageing Population

European policies for eInclusion place a high priority on enhancing the quality of life of older people and enabling them to remain active members of society and the workforce.

Policy Context

Europe is today facing unprecedented demographic change. A combination of increasing average life expectancy and decreasing birth rate means that the EU population is ageing and, looking at long-term projections, this process is set to accelerate in the future.

These changes have enormous economic and social implications. While the number of older people is growing, the share of those of working age is decreasing, putting increasing strain on labour markets, pension systems and social care. Healthcare and social care systems have to cope with an increasing proportion of the population affected by disabilities or chronic illnesses. But demographic change also offers new opportunities. Patterns of needs and demands will increasingly be determined by the elderly, opening up major new markets for ICT-based products and services.

Ageing touches on many different policy areas, including infrastructure, housing, education and training, social support, public health, special needs and healthcare. A comprehensive approach to the ageing challenge requires interfaces to be built between these different policy domains.

Promoting active ageing is at the core of the European Employment Strategy (EES), which coordinates the employment policies of the Member States. The Integrated Guidelines for growth and jobs (2005-2008) have sharpened the focus on attracting and retaining more older people in employment. Potential measures include better working conditions, more lifelong learning, a healthier work environment and adequate incentives to work, and discouraging early retirement.

For the first time, the guidelines emphasise the need to modernise social protection systems to support longer working lives. To back up the EES, active ageing is increasingly supported by the European Social Fund (ESF) and will remain a priority in the 2007-2013 programming period.

Building an inclusive society is a key pillar of the i2010 strategy, the digital economy component of the Lisbon agenda. Among many other measures, i2010 proposes to launch a flagship initiative on Independent Living for the Ageing Society in 2007, and to work towards a European eInclusion initiative for 2008. Alongside longer term research into ICT for Ageing under the 7th Framework Programme, an initiative on Ambient Assisted Living (AAL) is being jointly proposed by the Commission and certain Member States. Together these initiatives promise to play a major role in overcoming barriers to innovation and accelerating developments in this emerging global market.

Member States gave their backing to the inclusion agenda at a high-level meeting in Riga, Latvia in June 2006, which brought together ministers from 34 European countries. To address the needs of older workers and elderly people, ministers agreed to work together to: stimulate the market for ICT services and products for the elderly; develop innovative ICT solutions to help older people stay in work longer and improve their work-life balance; and use ICT to enhance older people's active participation in the economy and society. By implementing their Riga undertakings, European countries will take a big step towards making eInclusion a reality.

Understanding the Needs of Older People

ICT can achieve a great deal to enhance the independence and improve the quality of life of older people. Various medical conditions that in the past have proved extremely limiting may be relieved by an innovative use of ICT, reducing older people's reliance on carers or institutional care. ICT will enhance older people's safety and security and provide them with access to social, medical and emergency services. And ICT will allow the elderly to maintain social contacts and remain active members of society and the workforce.

Until recently, the ICT market has concentrated on services and products for young people and workers. We do not, therefore, really know much about the applications that older citizens need or want. Some highly innovative market investigations are necessary to establish the products, the markets and the best ways to tackle those markets.

SENIORWATCH, a project under IST-FP5, addressed the need to better understand and monitor the market dynamics of ICT-based applications and services for older and older-disabled citizens. A comprehensive series of reports was produced covering many aspects of this evolving market. These outputs are helping to define European policies towards small- and medium-sized enterprises, industry development, and design-for-all ICT applications and services.

Continuous Mobile Services for Healthcare

Certain conditions, although not life-threatening, are extremely restrictive, requiring patients to be constantly in touch with medical services for check-ups. **HealthService24**, an eTEN project, is validating a new platform for continuous mobile patient monitoring. It builds on the initial work of the FP5 project MobiHealth. A user is equipped with sensors interconnected under a body area network (BAN) managed by a PDA or a mobile telephone. The measurements are transmitted wirelessly via the mobile phone network either to a medical service centre or directly to medical professionals.

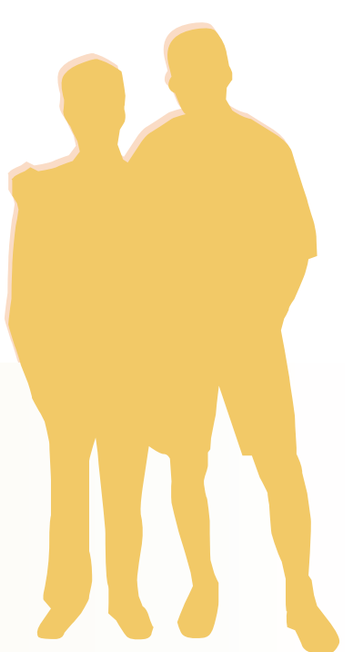
At the service centre, an individual's body data can be analysed immediately and personalised feedback made to patients in real-time (e.g. through alarms or reminders). Healthcare professionals can assess, diagnose and treat patients remotely, and in the event of rapidly deteriorating medical conditions the data centre can also send an SMS-alarm or provide the patient with a first-level medical support.

Excellence in Residential Care

Residential care homes play a key role in providing care for older people, either as a full service or through assisted living. Until now, the quality regime in such establishments has been administered mainly through licensing. To improve on today's static standards-based approaches, eTEN project **SENIORITY** used ICT to deliver quality models for the European care sector under a pay-per-use basis. The quality system is based on the European Foundation for Quality Management (EFQM), a well accepted quality management model used throughout the public and private sectors.

Coping with Parkinson's Disease

Parkinson's Disease (PD) is an incurable, progressive neurological disorder affecting 2% of the over-80 population. People with PD quickly become excluded due to disabling symptoms such as low mobility, speech disorders, periods of near paralysis ("freezing") and lack of confidence. **ParkService**, an eTEN project, is validating new ICT-based services to support people with PD and their carers. Its most prominent feature is INDIGO, a mobility aid wearable as a pair of glasses connected to a small electronic box. Developed under an earlier IST project, PARREHA, INDIGO can achieve startling results, allowing certain people to break out of freezing and walk almost normally.



> PROJECT DETAILS

HEALTHSERVICE24 - Continuous Mobile Services for Healthcare
info@healthservice24.com • www.healthservice24.com

PARKSERVICE - A Telematics Application for People with Parkinson's Disease
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SENIORITY - Seniority
tomascid@aetic.es • www.eu-seniority.com

SENIORWATCH - European Senior Watch Observatory and Inventory
seniorwatch@empirica.com • www.seniorwatch.de