e-Inclusion Ministerial Conference

Vienna, 30th November - 2nd December 2008

CONFERENCE REPORT

DG Information Society and Media – Unit H.3 ICT for Inclusion

e-inclusion
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European Commission
Information Society and Media

CONTENTS

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Executive Summary

Almost 1500 delegates attended the 2008 Ministerial e-Inclusion Conference and exhibition in Vienna on 30th November to 2nd December 2008. With 90 exhibition stands and more that 130 speakers, delegates enjoyed access to a wealth of rich experience and knowledge.

Highlights of the three-day event included:

- The announcement of the winners of the 2008 e-Inclusion awards at the gala dinner.
- Launch of Telecentre-Europe, a network of people and organisations created to increase the positive impact of telecentres throughout Europe.
- Interactive theatre plays, with actors in real life situations revealing how technology can help the disadvantaged.

Groups of young reporters also added their own view of proceedings via blogs and videos.

e-Inclusion: 'more necessary now than ever'

Ministers and senior officials from more than 30 European countries met during the Conference to recognise the progress and successes already achieved in the field of e-Inclusion in Europe and to consider the challenges that still remain. The Presidency of the Council of the European Union concluded that, in these difficult economic times, it is more necessary than ever to support vulnerable people in our society. Information and communication technologies (ICT) constitutes an essential tool to achieve this objective. Joint action in the area of e-inclusion can at the same time contribute to creating new jobs and to improving their quality, for example in the sector of care for elderly and dependent persons, including putting in place activities for unemployed people. Better digital inclusion will contribute to strengthening the main asset of Europe: its human capital[1].

The End of the Beginning….

This Conference celebrated achievements and showcased successes in the field of e-Inclusion from across Europe and beyond. It helped industry, practitioners and politicians to take stock of what still lies ahead and renew their commitments to achieve inclusion in the information society for all.

"*It is the finale of the European Commission's 2008 'e-Inclusion: Be Part of It!' Campaign*" said **Viviane Reding** in her closing video address, "*but it is far from the end of our commitment and actions in the field of e-Inclusion*".

With the adoption of the Communication **'Towards an Accessible information Society'**[2] during the Conference, the European Commission has set out a clear, common European direction for eAccessibility in general, and web accessibility in particular.

The main Conference Agenda comprised six streams addressing the key issues and challenges in Europe's e-Inclusion policy and practice. The conclusions in each area are set out below.

[1] The complete text of the Presidency Conclusions is available at: http://ec.europa.eu/information_society/events/e-inclusion/2008/doc/conclusions.pdf

[2] Full text available at http://ec.europa.eu/information_society/activities/einclusion/policy/accessibility/com_2008/index_en.htm

Digital Literacy

The EU's recent Digital Literacy review shows **significant advances in internet usage for all disadvantaged groups**, especially the unemployed. Improved digital literacy has contributed to a rapid growth in internet usage, with 51% of the population now regular users (up from 43% in 2005). Digital literacy amongst the young has grown strongly and EU skill levels in this group now exceed those in the US. On the negative side, however, still around 40% of the EU population has no internet or computer skills. This increases to 62% among those with a low level of education, 60% amongst the 55-64 age group, and 81% for the 65-74 age group. There is also evidence of a **secondary digital divide** in terms of the *quality* of use, such as use of advanced online services.

Digital literacy is converging with media literacy and requires a new framework

Successful digital literacy initiatives tend to be those that give users a voice, encourage critical thinking and life skills, and involve multiple stakeholders. **Initiatives must deliver a user journey**: first finding people who can benefit from the services on offer; then motivating them to take part; then providing them with basic skills; and finally enabling them to progress to other services and/or moving them on to other learning providers or employers. Thus, **strong partnerships and a multi-tiered approach are key to success**. Free and open source solutions can also be important in ensuring initiatives are sustainable.

Looking to the future, it is clear that digital literacy can no longer be seen purely as access to technology and information; increasingly it is also about using, sharing and creating content. This means people must be able to be critical and to use ICT as a creative and cultural tool. There is a **convergence between digital literacy and media literacy** and we need a new framework which accommodates both.

The information society is a moving target and ensuring participation for all demands continual change that reflects new technology and skills, and new social, economic and cultural needs. We must ensure that the majority move forward but also leave room to accommodate a wide range of learning- and life- styles, including for those who which to go at a slower pace.

Ageing Well

The **rapid demographic changes** facing Europe are well known: a growing number of older people, including increasing numbers of the very old (aged 85+); increasing number of people with some form of disability; more people living alone; smaller households and more fragile family networks; and increasing demands for health and social care at a time when budgets are constrained. ICT offers solutions for the needs of older people, such as easier access to shops and services, maintaining contact with family and friends, and opportunities to contribute to their communities and society. But it is important to remember that **'the elderly' are not a homogeneous group**. ICT solutions must be flexible and able to adapt to an individual user's needs and requirements.

At present **obstacles to the successful uptake of ICT applications for the elderly are many and varied**. They include: a lack of knowledge on, and understanding of, older people's needs; market fragmentation which makes the development of solutions commercially unattractive; a lack of interoperability between different devices; concerns about issues such as privacy, security and autonomy; poor market incentives for industry to offer new solutions; and a lack of harmonisation in reimbursement models at national level. Use of ICT in health and social care represents a particular challenge because of lack of evidence on cost-benefits, and ethical and regulatory concerns.

From a business perspective, **ICT for ageing is a complex marketplace**, characterised by a diversity of technologies and a complex mix of players, both private and public. Some market sectors are relatively mature whereas others, such as tele-healthcare and independent living facilities, are still growing or emerging. A holistic approach is needed, where ICT is just a tool to achieve wider

objectives for seniors. The user experience is key. Providers should focus on the end-user and the service to be delivered, then the technology will follow.

Effective end-to-end services will require **coordination and partnerships** between a wide range of actors. Some of these markets, such as real estate for the elderly, will rely on substantial private investments and the necessary business models are still emerging.

The user experience is key to creating a successful market in ICT for ageing

Government has a role here through helping to **create a favourable environment for new innovative products and services**, including through public procurement in areas such as health and social care. It can also help foster acceptance and uptake of innovation by ensuring that the various players have the economic incentives and that these are well aligned, so as to reduce uncertainties and risks. More convincing business cases from demonstration projects and agreed evaluation parameters would also help to build political commitment.

e-Accessibility

ICTs pervade every aspect of modern life, yet **people with disabilities still face huge barriers in accessing ICT-related goods and services**. Without this access they are unable to participate fully as consumers, citizens, patients, learners or in the myriad of other ways which the information society makes possible. Accessibility not only benefits people with disabilities, it benefits the whole population, especially against the background of a rapidly greying society.

e-Accessibility benchmarks in Europe show many gaps, with wide variations in approach and level of commitment across different fields and between Member States. Nevertheless, there is a strong correlation between the strength of national legislation and the level of e-Accessibility achieved. Some speakers argued for more specific EU-wide legislation to drive compliance across industry.

Accessibility needs to be tested in every phase of an ICT product or service, from design through to testing and implementation. As reiterated throughout the Conference, **the participation of users at all stages is crucial for commercially successful design**. In the case of websites, appropriate use of authoring tools and training in accessibility issues for all staff are key aspects.

The **frontiers of e-Accessibility are advancing all the time** and it is no longer just about websites. With devices such as TVs, mobile phones and other portable devices increasingly important in accessing e-services we have to think about accessibility issues here too.

Investing in e-Inclusion

For e-Inclusion to realise its full potential it has to make sense from economic and commercial perspectives. Up to now economists have focused primarily on the 'hard' aspects of ICT, such as network access and communication costs, which are tangible and therefore easy to measure. 'Softer' aspects such as e-skills are just as important in making the case, however. Studies show **a strong correlation between eSkills readiness and Network Readiness**, with European countries spread across a broad spectrum. Other evidence shows eSkills improve employability, especially for disadvantaged groups, and so should be a key focus for investment.

The economic case for broadband investment is clear but needs to be better made. The challenge is both to extend broadband access to all regions, and to upgrade from copper to fibre in anticipation of new high-capacity services. Good practice business models are important to demonstrate what can be achieved and these can have a catalytic effect on other regions. The regulatory implications of next generation broadband networks also need to be considered. Regulation should promote the move from pure access to better quality and higher capacity within a

market framework that encourages new entrants and stimulates private investment. **Much more information on impacts** is needed across all areas.

A strong business case and a commitment to partnership working are the keys to unlocking investment in inclusion

Online public services are now widely available, including for the 'socially disadvantaged', a group that is much more expensive for governments to reach. There is a paradox here, however, in that many of these people are not online or using e-Government services. Investment in more inclusive public services requires a strong commitment from both central and local authorities, close working between all relevant stakeholders, and for delivery to be financially sustainable, which means looking at the potential long-term savings.

Social networks facilitate inclusion in a variety of ways and are powerful tools for community building, user empowerment, knowledge creation and knowledge sharing. They enable people to self-organise and to create networks that are self-motivating and have their own dynamics. They put us **on the brink of major social innovation**. Social enterprises, which give conscious consideration of social and environmental issues, are also a powerful force for change.

The private sector has a key role to play in making e-Inclusion a reality. This requires **economic, social and political incentives**, all of which come together in a successful business case. Companies should no longer be addressing specific categories of users but developing products and services that meet everybody's needs. This means fostering innovation and creativity, and ensuring that customers and users play a central role in the research and development process. Europe should lead by example.

Spotlight on e-Inclusion Issues

With the economic downturn, the EU is seeing a big increase in the number of people needing support. ICT offers an **important tool for fighting poverty and unemployment**. It brings new opportunities to disadvantaged groups and is also an important means for supporting professionals working at the grassroots. 'Networks of networks' allow practitioners to share best practices, including at European level, and provide a focus for lobbying and inputs to the policy debate. Business also has its part to play in ensuring that digital inclusion is treated as an employment rights issue.

Turning to the regional dimension of digital inclusion, there are clear parallels between excluded territories and excluded people. In both cases those excluded have the least access to the technology and the least market influence. **Regional authorities need to be both leaders and enablers of change** to exploit the opportunities arising from all social and economic activities across their territories. This requires a concerted investment in broadband, based on broad partnerships. Investment in skills and in new services that improve prosperity and quality of life will also be important. Policy-making and networking to demonstrate the benefits of investment should be encouraged and better coordinated, so that weaker regions are not left behind.

ICT can also be used to promote cultural diversity and integration of migrants. Successful projects focus on information or activity that is meaningful in the context of individuals' current experience and needs, mix face-to-face engagement with eAccess, and include non-digital issues with the digital ones. A key lesson is to connect and build on existing initiatives that already have a meaningful focus for users and providers, so partnerships become very important.

Gender issues, too, are not receiving a high enough profile. **ICT is too important to exclude half the population from its processes and leadership**. It is hard, even for motivated women, to enter what is still a largely masculine environment. Projects driven by women for women have proved effective. The ICT industry must do more to become attractive employers. Digital exclusion is multi-

dimensional: we need to understand more about where age, disability and ethnicity intersect with gender. In measuring progress, we need to be cautious about how we interpret data, recognising many uncertainties about how variables are defined and how issues are profiled.

Inclusion 2020

> *"The web has been the vehicle to release a huge amount of creativity - including from the developing world. It is a new social machinery and is becoming essential to modern living.*"
> Keynote video address by Sir Tim Berners-Lee

The future is hard to predict and, in all probability, tomorrow's world will be nothing like we imagine it. Nevertheless, it seems clear that **ICT will become more and more embedded in our everyday lives**; universally available and accessible, in the way that electricity is today. Huge improvements in accessibility are being made all the time. By making these available by default it will be possible to provide more efficient and more cost-effective access for everyone, with benefits across all areas of society and the economy. Major steps forward in robotics are also likely but, as in other areas, very close involvement of users will be essential for such robotics technologies to be accepted.

Ethical issues around the use of ICT have received little attention up to now. Yet **economic and scientific innovation will only be successful if it takes into account real societal needs**. The balance between profitable ICT and inclusive ICT is a difficult one. But a balance must be struck. Incorporating e-Inclusion issues is a logical consequence of the adoption of the European Charter of Fundamental Rights. European research programmes should also ensure projects comply with fundamental ethical principles. The best way to integrate ethical criteria into ICT products is to include these criteria in the product development from the very beginning.

Finally, **inclusion is truly a global issue**. For example, around 80% of people with hearing impairments live in developing countries. In India, the number of older people will double over the next 10 years, from 80 million to 160 million. And in Africa, where 40% of the population is under 14, great inequality, low education, low broadband penetration and a lack of major corporate investment persist. While there are clear differences in emphasis between different regions of the world, there are also many common challenges and solutions. The sharing of experiences for mutual learning and inspiration will be important in being able to go forward together.

PL1: Opening Plenary

Session Chair: Wolfgang Blau

Speakers:

- *Craig R. Barrett, Chairman of the Board, Intel Corporation and Chairman, United Nations Global Alliance for ICT and Development, US*
- *Eric Besson, Minister of State to the Prime Minister, with responsibility for Forward Planning, Assessment of Public Policies and Development of the Digital Economy, France*
- *Erwin Buchinger, Federal Minister of Social Affairs and Consumer Protection, Austria*
- *Fabio Colasanti, Director-General, DG Information Society & Media, European Commission*
- *Boris Nemsic, CEO, Telekom Austria Group, Austria*

Plus personal interventions from: Frieda Spielmann, Austria; Jamshid Kohandel, France; and Rhodri Buttrick, United Kingdom.

Welcoming Addresses

Minister Buchinger welcomed everyone to this important Conference on behalf of the Austrian Government, and extended his thanks to the French Presidency for its support in organising the event. Over 1300 people would be attending the Conference from across Europe and further afield.

Marginalised groups will be most at risk from the economic slowdown, making it more important than ever for Europe to act.

The present financial situation is very problematic, Mr Buchinger said, and is creating tension in Europe and around the world. The impact will be felt particularly by marginalised groups, making it even more important that the EU and its Member States step up their efforts to combat poverty and exclusion. ICT provides one example: still between 30-40% of Europeans do not use the internet or make the most of the possibilities brought by ICT. These include many among the elderly, economically disadvantaged, and the disabled. According to Eurostat, in 2007 two-thirds of the unemployed and 80% of the over-65s did not use ICT.

In Austria, among the over-70s only 15% have a computer and only 6% have an internet connection. This is unacceptable because it means the elderly do not have full access to services and culture. Austria cannot accept this two-class society, and nor can Europe. Austria has many ways of tackling the digital divide and, like other member states and organisations, is making its experiences available for discussion.

The conference in Riga in 2006, under the Austrian Presidency, adopted a declaration which is being followed up under the French Presidency here in Vienna. This put the issue at the centre of concerns and was followed up by the conference in Lisbon and the i2010 initiative. Still more needs to be done at the EU level to reduce the digital divide and access to ICT. As Minister for Consumer Protection, Mr Buchinger was also conscious of the need to support the rights of consumers.

He wished the conference well and felt sure that the exciting presentations and discussions would provide further impetus in combating the digital divide and making it easier for all parts of society to participate in ICT.

Fabio Colasanti spoke on behalf of Mr Vladimír Špidla, European Commissioner for Employment, Social Affairs and Equal Opportunities, who was unable to attend the meeting because of ill health.

Building an inclusive digital Europe means building a strong Europe. Inclusion is a moral obligation but also a huge economic opportunity. It lies at the heart of Europe's renewed Social Agenda – launched six months ago - with its three pillars of opportunities, access and solidarity. Opportunities means being able to shape your life by capitalising on your potential. Access means ensuring that essential services such as health and education are affordable, accessible and useable to all, so that no one is left behind. Solidarity is at the heart of the European social model, with its commitment to fostering social inclusion and integration, and combating poverty. This renewed social agenda seeks to empower people. ICT can empower and emancipate individuals in a way no other action can. The digital inclusion community – who make up the conference audience - can be the actors, the champions in changing and realising Europe's social and economic agenda.

> *"Inclusion is a moral obligation, but also a huge economic opportunity"*
> *Fabio Colasanti*

Europe faces many challenges, Mr Colasanti continued, including globalisation, demographic change, and the rapidly accelerating pace of technology itself. We need a truly inclusive society to transform these challenges into economic opportunities and to empower individuals and communities. It is the challenge of the 'four A's': access, affordability, accessibility and abilities, which were addressed in a policy document on inclusion adopted by the Commission last year.

The Commission has also adopted an Action Plan on Ageing Well in the Information Society, and this year the Member States passed the Ambient Assisted Living Programme which will leverage almost €1 bn from public and private partners. Other recent developments were a proposal for a roadmap on accessibility including a new directive on non-discriminatory access. The e-Inclusion awards – run in association with the Conference – were also a marked success, attracting over 500 entries.

To conclude, Mr Colasanti cited a human example of the benefits an inclusive society can bring. Mats from Denmark had been on social welfare for 25 years but having acquired ICT training he now works for his father's company, Specialist, which develops ICT systems for people diagnosed with autism. This is a clear case of inclusion being a triple win: improving the individual's quality of life; creating business opportunities in the economy; and strengthening solidarity in society.

Eric Besson welcomed participants on behalf of the French Presidency. "The conference was part of a Community programme which is very rich", he said. A Ministerial Meeting held on 27th November – which Mr Besson had chaired - had looked at progress in broadband across the EU. Access to the internet is to the 21st century what access to railways meant in previous centuries. It will be crucial for all businesses, administrations and citizens. These technologies will be catalysts for social and economic development, helping people to be autonomous and to participate fully in society and the economy. We cannot allow any groups to be disadvantaged.

When the EU adopted the Lisbon Agenda it decided that inclusion was absolutely essential to its aims. Since then the Commission has launched a number of measures to promote the information society for everybody. Computer literacy, cultural diversity and e-government are all key elements of the i2010 initiative. In the Riga declaration, ministers established a number of aims for 2010, to ensure all citizens can participate in the information society. While progress has been made since, there are still social differences. This Vienna Conference would be very important in bringing together the efforts of various players and reinforcing the commitment of the ministers in Riga.

The French digital plan, France 2012, includes a wide range of measures. It will try to offer broadband access for all at affordable prices; 'digital ambassadors' will be appointed to mentor sensitive groups, such as the elderly and disabled, as they get online; a new recycling scheme will recycle equipment to those with low incomes; people will be offered more training to help them get

to grips with the technology; and there will be a major initiative to ensure websites comply with national and international standards on accessibility.

The recent ministerial meeting in Seoul, South Korea, showed that countries from both the north and south are willing to act on these issues and close the digital divide. Mr Besson believed that the Conference would be a big step forward as we move towards the digital world for everyone.

e-Inclusion: The Real Story

At this point in the meeting three individuals took to the Conference stage to tell their personal stories of the positive impact ICT has had on their lives.

"The internet has totally changed my life. Nothing is the same as it used to be."
Frau Frieda Spielmann

Frieda Spielmann, aged 82 from Innsbruck, Austria, had a long career in the Austrian administration and then became a member of the Austrian pensioner's association. After retirement she developed an interest in computers and began to teach other elderly people how to use them. She started out 'on a whim', without any goal but after overcoming her initial fears soon developed objectives. She bought her first PC at the age of 75 and then "went online and found her way around in that world as well". She bought a digital camera and learnt how to use it and to process the photos on the PC. Then she went on to use Powerpoint and music. Next she learnt how to use Austria's Citizen Card to access public services. She is mostly self-taught but also takes classes with the local school in Innsbruck. These new skills have become very important to Ms Spielmann, especially the internet. Her communication skills have improved, she feels better informed and "doesn't have time to get sick". She looks for recipes, books theatre tickets and cheap flights, and banks and shops online. She now organises courses for beginners and advanced to help pass on her knowledge. Since 2000 there have been over 170 courses with 1400 participants, two-thirds of whom were women - many over 80. "Often people ask whether they can do it but they soon overcome their fears and inhibitions", said Ms Spielmann. "Nowadays you can learn anything if you want to do it?", she added.

Jamshid Kohandel, from France, is a Policy Officer in the European Commission and before that worked in the French administration. He divides his life into "the periods with and without technology". Until he went to university he used just a typewriter and a tape recorder and had to rely on others to find books and tapes, etc. Later he acquired a PC with a Braille display. Then the internet came along and he was able to communicate with others using email. New technologies have removed barriers between the sighted and non-sighted. He has now virtually abandoned Braille books. Indeed, many of the people he corresponds with during his work do not know he is blind. More recently, he has begun to use a speaking GPS navigator in conjunction with a mobile phone. Technology has opened Mr Kohandel's professional horizons but he has required a lot of effort to adapt. This has only been possible through the effort and co-operation of employers, colleagues and friends who continue to support him. Much remains to be done because the information society still has barriers to access for people with disabilities, but these are less difficult to remove than physical barriers. Disabled users should affirm their presence in the information society by communicating their needs and participating in it.

Rhodri Buttrick, aged 17 from the United Kingdom, is dyslexic and dyspraxic (a coordination disorder). This means he finds writing difficult, despite intensive lessons. The UK's Dyslexia Association recommended to use speech recognition. This proved problematic at first because the software training process involved a lot of reading. Eventually he was able to train the system with his parent's help. Another problem he encountered was teachers and students not being familiar

with the technology. Rhodri now uses speech recognition for his coursework, classes and even in exams. He hopes to study philosophy at university but without these technological aids he would most likely have dropped out of school altogether and would not have been able to fulfil opportunities. He would like other parents and teachers to make use of speech recognition as his parents did. He has posted a video of his experience on YouTube and on his own website (www.rhodders.com).

A World of Opportunity Empowered by Technology

Keynote speaker **Craig R. Barrett** addressed inclusion and the internet from the dual perspectives of being Chairman of Intel, one of the world's largest corporations, and also Chairman of the UN Global Alliance for ICT and Development. Both developed and developing countries face similar issues, he maintained. Economic development, education, healthcare and government-citizen interactions are common concerns around the world. Governments alone cannot tackle these issues; they require partnerships between the private, public and NGO sectors.

The world today is in transition. In the last decade or so, three billion new participants have joined the world's economic system. That is both a challenge and an opportunity: they are three billion new customers but also competitors for jobs and economic development. Technology is central to the challenges associated with economic development. It is essential for a viable economic system and a high standard of living. Korea and the Nordic countries were early examples of countries that used partnership to jump start the information society. More recently they have been followed by countries like Rwanda, Jordan and Egypt. Another example is kiwa.org, a website that facilities micro-loans in countries such as Bangladesh.

"A small deed done is better than a great deed planned"
Craig R Barrett

Education is the great leveller, it creates the economy. Hence, every country is focusing on having a competitive education system. We know that Europe fares well in education, but others are perhaps taking this more seriously. Asian countries such as Singapore, Taiwan and Japan tend to do well in science and maths education, which will be the basis for future technology and for economic prosperity. While internet access is important, we should not forget that teachers are key to good education. The internet is a tool for them to make education exciting. Overall, only about 20% of the global population has internet access, in Africa probably only 5%. There's a huge way to go to provide educational capability. Among many potential examples, Portugal has announced a plan to provide every child between the ages of 5 to 8 with their own laptop, and also to teach the teachers to incorporate PCs into the classroom.

Turning to healthcare, Mr Barrett noted two important aspects. In the developed economies, like Europe, the challenge is the cost of healthcare. It is one of the last industries to take full advantage of information technology to improve delivery of the service at higher quality and lower cost. Services such as remote diagnostics and remote monitoring are huge opportunities. In the emerging economies the situation is different, however. Here there is a mismatch between the urban areas - where the healthcare talent resides – and the rural areas, where most healthcare is needed. ICT can help: with tele-medicine the doctor in the large city can connect to the patient in a small village. Already there are numerous examples in India, China, Brazil, and elsewhere. Technology can also provide new solutions for the 600 million people – soon to be 1 billion – aged over 60 who are disproportionate users of health services.

Today, the healthcare system is very much like the computer world of 30 years ago. If you're sick today, you go to the mainframe – that's the hospital. We need to turn the hospital into the personal

computer: using it to deliver medical service on the patient's terms, proactively in their homes. There were examples of this in the exhibition hall.

Technology is exceptionally useful in economic development, but it requires four characteristics. Firstly, access to hardware and software, which are becoming cheaper every day. Secondly, connectivity - broadband and broadband wireless are becoming ubiquitous in developed countries but in sub-Saharan Africa even poor quality broadband can cost up to $250 per month. Content is important because the technology is only a tool, and is useful only if it solves a user's problem. Lastly, there is education to use ICT. Mr Barrett then showed a video with examples from China, India, Sri Lanka, Brazil, Egypt and elsewhere.

Mr Barrett ended his speech with a number of observations. Firstly, if you want to win, you have to compete. The world has never been as competitive as it is today. Governments must choose to compete. Secondly, we have to invest in the long term, which means in the education of young people. Third, it's true to say that a small deed done is better than a great deed planned. Often too much time is spent on devising grand plans without recognising that we actually have to take the first small steps. Lastly, partnerships are fundamental to the solution. Governments can plan but implementation requires harnessing inputs from the private and public sectors and the NGOs.

Citizen Media – Social Change

Boris Nemsic, CEO of Telekom Austria Group, described market conditions in Austria and the company's experiences in the Citizen Media project. Telekom Austria has been offering mobile broadband since 2002 and in the fixed network all 14,000 of its switching centres is equipped with ADSL. The company is committed to being a good corporate citizen and has invested in a wide range of programmes aimed at overcoming the digital divide. For instance, it works in schools to help pupils use Web 2.0 technologies. It is also investing heavily in South-East Europe.

Citizen Media was launched in 2003, under the Sixth Framework Programme (FP6), and aims to support seniors, young people and other social groups in developing community media resources. It included three testbeds, one of which was in Engerwitzdorf, Austria together with Oslo and Cologne. The project struggled to engage people at first because it presented them with abstract technology rather than personal benefits. So the team revised its approach and asked the users what sort of project they would invest their time in. The answer was one where ICT was a social tool: that enabled them to talk to one another and to close the gap to the younger generation. They started low-tech with a device everyone was familiar with – the TV.

The key lessons here were that technologists have to talk to people in everyday language and using means they will understand. Secondly, there is no substitute for 'learning by playing'. People learnt best by diving in and experimenting with the technology 'hands-on'. Overall, the project clearly showed it is possible to reach groups that are not usually interested in ICT – such as the elderly and busy parents – and has helped bridge social gaps. Telekom Austria has learnt valuable lessons which it will apply in future services.

PL2: The e-Inclusion Debate

Session Chair: Wolfgang Blau

Speakers:

- *Craig R. Barrett, Chairman, Intel*
- *Marie-Beatrice Levaux, President, French Federation of Household Employers*
- *Mark MacGann, Director General, EICTA*
- *Anne-Sophie Parent, Director, AGE*
- *Heidrun Silhavy, Federal Minister for Woman, Media and Regional Policy Austria*

The eInclusion Debate evolved around the issue whether e-Inclusion is more than doing good, exploring whether e-Inclusion can also be an attractive pursuit from a business perspective. The possibility to opt-out was brought up for discussion: how about those that would not want to participate? While discussing this, it came up that maybe even more important right now could be to enable those that want to opt in, to opt in.

Heidrun Silhavy opened the floor. She mentioned that it is important to see eInclusion policy together with policies towards e-Government, eDemocracy and participation. Important points of attention are access, from both geographical and ability perspectives. We see that more and more older people today are using these new devices and we are moving in the right direction. Technology can help provide home care, allowing people to live independently longer. When considering deployment of special devices in the public sphere, this should be done in close interaction with the people who will be the eventual users, so as to ensure they meet a real need. She emphasised that making the tools easy-to-use may be a pre-requisite for disadvantaged users but all users will benefit, and therefore it could be economically attractive to develop tools and services in such a way that there are low barriers to usage.

Craig Barrett pointed out that the market is global, and therefore big enough to develop any tools for specific purposes. Any issue that has to be addressed anywhere, has to be addressed at many more places. Even more importantly, he pointed out that we cannot afford to wait for everybody to agree with the next innovation: we need to just start using it, while offering people that are wary the opportunity to opt out. A clear example here is the enormous potential value of developing electronic medical records, distance diagnostics, etc. Mr. Barrett pleaded to get started with the 95% that want it, while giving the other 5% the opportunity to opt out.

According to Mr. Barrett, nature and technology go well together. He remarked: “While running a ranch I find my horses have better electronic medical records than my employees. For instance, if you look at managing and tracking endangered species, technology is a big enabler. And early detection of forest fires is for instance infrared detectors in satellites … technology provides wonderful opportunities to help nature preservation.” He pointed out again that technology is an enabler, nothing more, and nothing less. It’s up to us to put it for the right use.

Some older people may want to opt out, yet most would be very happy to opt in to remain actively involved in their community, according to **Anne-Sophie Parent**. However, the majority of ICT goods and services are not designed with their needs in mind. As long as it is difficult for them to opt in, they are faced with an increasing amount of essential services that are difficult to access. Ms. Parent called for political commitment at a high level to involve the elderly, which is lacking at the moment. For instance, information on this is not presented in Member States’ eInclusion reports.

On behalf of the European ICT industry **Mark MacGann** called for a coordinated eInclusion policy in Europe, that would allow industry to focus its investments on things they know need to be done. In terms of roles, European governments should focus on developing one vision, and set up policies in

support of that, and set an appropriate regulatory framework. Government should define the ends and should leave defining the means to industry. He concluded that today eInclusion is still not a subject that is centre stage for politicians. In the current economic context all investments need to be well justified, making coordinated political action even more important. Technology already exists; what industry needs is public policies that show eInclusion has become essential and not some luxury of the CEO.

In France, there are 3.5 million home workers (not teleworkers). And according to Ms **Marie-Beatrice Levaux** this comes with a lot of challenges. These are a category of wage earners that are generally low qualified, and low salaried. Access to ICT for these people is limited and they are not easy to educate into using ICT. And it would be important for older people to start learning to use the technologies to connect to their community, for many reasons, including being able to participate to local community activities. Distance learning may help to overcome this. There is now a programme for women over 45 to get new professional qualifications through distance learning. Virtual classrooms, tutorials prevent these people from becoming even more isolated. Also in France, making those tools available to all remains a major challenge, today.

Discussion

After the initial introductions, the moderator **Wolfgang Blau** raised some questions for debate. His first question was: “Should there be an opportunity to opt out of the information society?” This question was picked up by the panel, who all agreed that this is a reality that should be faced, no way around it. At the same time it is the only way forward, as Mr Barrett said: “If we would stop technology, we would all still be walking or riding horses.” It is a real challenge to service providers to make tools and services easy enough to be used by all. There was a call to let the benefits of easy access be heavy enough to get investments in making that happen. Distance learning is another enabler for people to learn to use the new tools. And in order to make these new tools and services widely available, mobile technologies will likely play a major role.

An audience member pointed out that governments can no longer deal with all challenges and NGOs need to step up and help focus on the real issues. He said: “Maybe we should hang a big banner on the wall that it is not about ‘what about those that want to opt out’. A much bigger problem is for those who want to opt in … but can’t!” This message was echoed by the panel.

The final remark was made that we can learn from the developing world that they are willing to compete very hard to become competitive with US, EU, Japan, and are willing to invest in the new, rather than preserving the old. Maybe it is time that US, EU, Japan start focusing at creating the new, as well, and are prepared to compete.

Conclusions

Inclusion is something worth pursuing and strong voices expressed the need to push on with developing services that are simpler and easier to use, but not wait until everybody agrees.

Those who don’t agree, for whatever reason, should have the opportunity to obtain services offline. However, industry service providers should really consider offering services in such a way that not only the young and technology adopt but other groups as well. In this it was emphasised that simpler, easier to use services may be an enabler for some, but will be appreciated by all.

Maybe even more important than the focus on those that would want to opt out may be that many in this world would love to opt in, and it was very strongly felt that it is up to society as a whole to make this possible. More coordinated government action would help to stimulate industry to develop and offer more inclusive technologies and services.

Stream 1: Digital Literacy

The Digital Literacy stream considered recent policy developments in relation to digital literacy in Europe, how digital literacy issues are being addressed on the ground, and how the field is likely to evolve in the future.

The recent review of EU digital literacy policies and actions shows significant advances in internet usage for all disadvantaged groups, especially the unemployed. Improved digital literacy has contributed to a rapid growth in internet usage, with 51% of the population now regular users (up from 43% in 2005). Digital literacy amongst the young has grown strongly and EU skill levels in this group now exceed those in the US. On the negative side, however, around 40% of the EU population has no internet or computer skills. This increases to 62% among those with a low level of education, 60% amongst the 55-64 age group, and 81% for the 65-74 age group. There is also evidence of a secondary digital divide in terms of the *quality* of use, such as use of advanced online services.

Speakers identified a number of characteristics in successful digital literacy initiatives. Such initiatives tend to be those that give users a voice, encourage critical thinking and life skills, and have multiple stakeholders. Initiatives must deliver a user journey: first finding people who can benefit from the services on offer; then motivating them to take part; then providing them with basic skills; and finally enabling them to progress to other services and/or moving them on to other learning providers or employers. Thus, strong partnerships and a multi-tiered approach are key to success. Free and open source solutions can also be important in ensuring initiatives are sustainable.

Looking to the future, it is clear that digital literacy can no longer be seen purely as access to technology and information; increasingly it is also about using, sharing and creating content. This means people must be critical and able to use ICT as a creative and cultural tool. Hence, there is a convergence between digital literacy and media literacy and we need a new framework which accommodates both.

Ensuring that everyone can participate in the information society is a moving target which will change as new technology is developed, new skills are required, and new social, economic and cultural needs arise. We must ensure that the majority move forward but also leave room to accommodate a wide range of learning- and life- styles, including for those who which to go at a slower pace.

PS1: Digital Literacy – the EU Digital Literacy Review

Session Chair: Christa Prets, Member of the European Parliament, Austria

Speakers:

- *Jim Devine, President of Institute of Art, Design and Technology (IADT), Ireland*
- *Frank Mather, Policy Developer, DG Information Society and Media, European Commission*
- *Hanne Shapiro, Centre Manager, Danish Technological Institute*
- *Carmen Stadelhofer, Academic Director and the Director of ZAWiW, Germany*

Christa Prets, as chair of this session, explained that the European Commission's review of digital literacy was undertaken in response to the 2006 Riga Ministerial Conference[3]. In the Riga Declaration, EU Member States agreed a target of reducing by half the gaps between digital literacy rates in disadvantaged groups and the EU average by 2010. Evidence for the review has been drawn from all the 470 known digital literacy initiatives across Europe, as well as many from elsewhere, and through a special Eurostat module established for the purpose.

Frank Mather set out the main findings:

- There have been significant advances in internet usage for all disadvantaged groups especially the unemployed for whom the gap between literacy rates and the EU average was cut by a quarter between 2005 and 2007;
- Improved digital literacy has contributed to a rapid growth in Internet usage, with 51% of the population now regular users (up from 43% in 2005);
- Digital literacy amongst the young has grown strongly and skill levels in this group in the EU now exceed those in the USA.

However, these overall impressive results must be balanced with two important caveats:

- Much more remains to be done, as although the proportion of people with no internet or computer skills is on average 40%, this is 81% for the 65-74 age group, 62% among those with a low level of education, and 60% amongst the 55-64 age group.
- There is evidence of a possible secondary digital divide in terms of quality of use and more needs to be done to increase trust and confidence in the use of advanced online services and in particular those involving online transactions.

Hanne Shapiro outlined some of the main best practice lessons for improving digital literacy among target groups which traditionally do not have the skills or motivation to participate actively in the information society. Thirty initiatives were examined in depth in terms of their impacts on target groups, their innovative nature, their effectiveness, and in order to provide diversity. The earlier operational input-output approach of digital literacy initiatives has largely been abandoned. Those initiatives which work best are ones in which ICT use often becomes a shared construction, developed through self-organised networks where self-realisation results in giving users a voice. Such cases tend to have multi-stakeholder participation, ranging from public-private-partnerships, NGOs, civil organisations embedded in the communities they serve, and individual users themselves. The best initiatives typically embed ICT into the everyday lives of the target group, starting from users' social, cultural and economic activities, and empowering them through self-expression and creation.

[3] "*Digital Literacy Report: a review for the i2010 eInclusion initiative*", European Commission, available at: http://ec.europa.eu/information_society/eeurope/i2010/docs/digital_literacy/digital_literacy_review.pdf

The contexts of successful initiatives have also changed compared to earlier activities, and now tend to be aimed at developing critical thinking and skills which can transform the lives of the users concerned, for example through social networking, democratic participation and social entrepreneurship. However, there remain unresolved issues about how we understand the impacts which cannot only be measured quantitatively, but also require thinking about improving the quality of the user's everyday life.

"Learning should be life-long, life-wide and informal"
Carmen Stadelhofer

Carmen Stadelhofer focused on one of the target groups still causing concern, i.e. the elderly. One of the main barriers here is that when the elderly think of learning they often think of old-fashioned formal school education and do not consider their life experiences as part of an on-going learning process. We need to tackle this by promoting the idea of learning also being life-long, life-wide and informal, for example in the context of the elderly using ICT to keep in touch with family and friends and for hobbies and interests. Learning must also be much more individualised, as people are different and have variegated needs and thereby require diverse formats and channels. For example, learning could take place as self-study, formal courses, via informal assistance from colleagues, through programmes which enable seniors to support seniors, as well as by young people supporting their elderly family members or those in their community.

When the elderly say they "don't need" or "don't understand" the internet, they must, of course, be allowed the option of not participating. However, most who say this and then realise that the internet is changing society in fundamental ways and that it can provide them with immense benefits, also change their attitude and wish to acquire the necessary digital literacy skills. They just need the awareness and the practical help, and often this involves an understanding that the internet is not really about technology but much more about community, social and cultural life.

Jim Devine provided an overview of the status of digital literacy by pointing out that, although there are many innovative initiatives, the challenge is to get these into the mainstream without creating new marginalised groups. This could easily happen as non-ICT services, such as face-to-face or written forms of transaction, are scaled back, for example there could be increased problems for the blind as digital TV increases in importance. This may, of course, also say something about the mainstream if it becomes difficult to pull in the exciting and clearly effective initiatives already existing.

A critical issue is to get rid of the unnecessary distinction between digital literacy and media literacy. This will broaden our understanding of digital literacy and align it within the existing media literacy framework, thereby demonstrating more clearly the importance of broad ICT skills in realising a high quality of life for all individuals in society.

Discussion and Conclusions

Recommendations were formulated by the Digital Literacy Review under a number of headings addressed to the various actors. To be successful, digital literacy and e-Inclusion initiatives should be embedded in appropriate motivating social/educational contexts. Content, services and usability must be designed to a high standard and users' critical skills must in turn be developed. Evaluation and benchmarking of e-Inclusion and digital literacy training initiatives are essential to the continuous improvement of services and to raising participation levels among under-represented groups. In terms of funding, both public and private organisations must share responsibility and must achieve synergy through collaboration. More use should also be made of intermediaries, when these are part of the target group or trusted by it, in motivating individuals and delivering initiatives.

PS6: Digital Literacy - Making the Case

Session Chair: Lieneke Jongeling, e-Skills Ambassador, The Netherlands

Speakers:

- *Luis Casas Luengo, General Director, FUNDECYT, Spain*
- *Walter de Brouwer, President and CEO, One Laptop Per Child, Belgium*
- *Bodo Kleineidam, Dipl.-Ing., Pensioner, Network for Senior Internet Initiatives, Baden-Württemberg, Germany*
- *Helen Milner, Managing Director, UK Online Centres, United Kingdom*

The Session looked at how the digital literacy dimensions identified in the EU's Digital Literacy Review (see Session PS1) are being addressed in reality, based on four real life cases. **Ms Jongeling** began by drawing attention to the Digital Literacy Review and two other documents relevant to the discussion: a report of the Netherlands' eSkills initiative and the EU's eSkills Agenda.

Helen Milner described the experiences of the UK Online Centres in tackling digital literacy. There are 6,000 centres across the UK, focused on the most deprived areas. They provide a place for users to get online and get support in using ICT in every deprived community.

At present in Europe around a third of adults aren't online. Half of these are in the lower socio-economic groups. In a 15 month programme, UK Online Centres targeted adults with mental health issues, families in poverty, teenage parents/teenagers at risk, and older people. Over 12,000 people were engaged through 20 projects, at a net cost of £163 (~€200) per individual. In a homeless shelter in Chester, for example, 88 homeless people, 75 with poor mental health, were shown how to use ICT. Email and social networking added structure to their lives. Subsequently, 91% went onto a planned move into accommodation, versus 40% before. One of those who the centre put back on their feet was Shaun, a 39-year old homeless man who had suffered from drug and alcohol addiction.

> *"Tell me and I will forget; show me and I will remember; involve me and I will understand."*
> *Helen Milner, quoting Confucius*

Other activities include working with social landlords, housing associations and owners of sheltered housing for the elderly to set up internet access and training centres in these settings. A learning portal, www.myguide.gov.uk, has been set up offering courses designed for all citizens; it is a gateway for all, with more than 120,000 registrations so far. Get Online Day is a national campaign targeting inter-generational learning, which has helped 10,000 people to learn to use the internet. And Voice-box, www.voice-box.org.uk, is a mentoring programme to inspire disadvantaged people to create and own content.

Bodo Kleineidam presented Baden-Württemberg's experiences in encouraging self-help among the elderly. Early retirement programmes mean an increasing number of seniors have time on their hands, while the knowledge of older people is a vital resource for voluntary organisations. "Older people are the raw material of 21st century communities", Mr Kleineidam insisted. "The issue is how to motivate them?" Recognising the opportunities and need for action, in 2004 the Senior Internet Helpers initiative was launched (see www.netzwerk-sii-bw.de). This aimed to motivate seniors to use the internet and show how they could use it to access government services, communicate with family and friends, and generally live a better life. The initiative was promoted through newspaper and radio campaigns, and IBM provided laptops.

Senior Internet Helpers are elderly volunteers who provide one-to-one help and support to other seniors in their own homes. They help to solve users' problems and sometimes organise wider

meetings to address common issues. Over three years, 450 Helpers were trained and around 5000 seniors trained and consulted. Retirees from the ICT industry are a key pool for recruitment. As technology moves at a fast pace, there is a continual need to invest in new infrastructures and resources and recruit new trainers. With the formal project completed, in 2008 an association was founded to carry on this work.

Successful Learning Strategies For Older People (presentation of Bodo Kleineidam)

Luis Casas Luengo focused on the work of the Extremadura region's network of New Knowledge Centres for Technological Literacy (NKCs, see www.nccextremadura.org). Extremadura has a bottom-up strategy designed to provide connectivity as a right to all citizens, ensure accessibility for all, and promote digital literacy. It is the only region in Spain with broadband access throughout all municipalities. NKCs bring together a wide range of regional actors, including municipalities, universities and NGOs. They promote access to ICT for all citizens, and in so doing raise awareness of Knowledge Society opportunities, encourage new e-Government services, and spread local and regional culture.

In 2002, faced with the need to sustain and extend the network, the NKCs turned to free and open source software (FLOSS). This proved key in ensuring the sustainability of the network and the valuable services it offers. Since then the network has been expanded to 45 NKCs, which serve around 120,000 users. Almost two-thirds of users are women, typically between the ages of 36-54. Around one-third are unemployed and a further third are workers. New activities are being planned targeted at parents, farmers, and access to e-Government services. A regional IT card will also be launched in 2009.

"We're making a small computer for a big cause"
Walter de Brouwer

Walter de Brouwer explained the challenges in bringing digital literacy to the developing world. One Laptop per Child is an initiative of the Massachusetts Institute of Technology (MIT), a US educational institution renown for its boldness, irreverence and commitment to technology. Its 'cute green machine', XO, is a disruptive technology that promises to change the world by giving children in the developing world access to education. The laptops are provided to the children free,

to take home, focusing mainly on the 6-12 year olds. They are issued in large numbers so everyone has one and no-one in the class or school gets left out. The computers can connect to each other and to the internet (where possible). And being equipped with free software, they can easily grow and adapt with the child. In essence, it's about "making a small computer to meet a big cause."

Turning to the title of his talk, "*Lessons as an Educational Guerilla*", Mr de Brouwer ran through a series of maxims which epitomised the campaign. These included: Get Them Before They Grow (i.e. under 12 years old); Own The Means (owning a PC makes kids proud); Your Are on Your Own (children are encouraged to tinker and repair the machines themselves); Low Tech is Power (the units have a power consumption of 2W and work on solar energy); and Nature is Hostile (hence the PCs are designed to be robust and very hard to break).

Discussion and Conclusions

The user experience was a key point noted in the discussion. It is not enough just to have specific and unrelated offerings. Initiatives must deliver a user journey: first finding people who can benefit from the services on offer (partners are important here); then motivating them to take part; then providing them with basic skills; and finally enabling them to progress to other services and/or moving them on to other learning providers or employers. Intellectual disabilities should not be overlooked, and in the case of UK Online several centres specialise in this field.

All of these initiatives are using innovative techniques and offer lessons from which other European initiatives and projects could benefit. Concluding, Ms Jongeling noted that the cases were very inspiring and offered important lessons in the run-up to the IT Congress in Amsterdam in 2010.

PL5: Digital Literacy – An Essential Life Skill

Session Chair: Wolfgang Blau

Speakers:

- *David Buckingham, Professor of Education, Director, Centre for the Study of Children, Youth and Media, Institute of Education, University of London, United Kingdom*
- *Rudolf Schicker, Executive City Councillor for Urban Development, Traffic and Transport, Vienna, Austria*
- *Gabi Zedlmayer, Vice President, Corporate Marketing and Global Citizenship, Hewlett Packard, Europe, Middle East and Africa, Switzerland*

The Chair, **Wolfgang Blau**, introduced the session by posing several questions for debate. With technology now such a fundamental part of our daily lives, surely being literate in using IT and interpreting information is as crucial a basic life skill as reading or writing? How do we avoid creating or perpetuating an underclass of digital illiterates? How will people cope without the skills? Can you 'opt out' of the information society? Can the technology help?

Rudolf Schicker pointed out that digital literacy has now become an essential life skill, on a par with reading, writing and arithmetic. ICT is now so ingrained in most people's daily life, their work, leisure and community activities, that not being digitally literate can become a serious handicap. This means that supporting digital literacy must begin early, for example in the schools. But there are also many different types of disadvantaged groups, ranging from the elderly, the unemployed, those with low educational attainment, those living in remote areas where access to digital infrastructures and services is often low, etc. This implies that governments at all levels, national, city, regional and municipal, should develop digital literacy initiatives.

In the City of Vienna, for example, there is strong political commitment to identify and target groups needing support. The Vienna Education Network as far back as 2001 put all schools online and has since become an example for the whole of Europe. There are 100 internet access points throughout the city, in libraries and other public buildings as well as some on the streets, which also provide email and picture phone facilities. These are supplemented by 35 free access hot-spots across the city. Vienna City provides an online citizen request service managed in the back-office on a common database which also allows citizens to check their data online. The forum *Wein.at* provides a discussion and consultation platform which can also be accessed anonymously, and there are specific online services for the elderly through 72 tailored internet stations with free access. Cities across Austria have formed an e-Government reference network to promote cooperation and the exchange of experiences. Since January 2008 it has been mandatory for all e-Government websites to comply with the WAI guidelines on accessibility.

Digital literacy is converging with media literacy

The simple message which **David Buckingham** wished to deliver was that, when thinking about digital literacy, we must look beyond only providing access to infrastructure and services. In the new, second, phase of digital literacy we must also include access to skills, competencies and understanding, including the use of ICT in creative and critical ways. We are moving towards universal access, partially driven by the market but also by government and other initiatives. It is important to realise that access has an uneven quality, and that this is only partially a technical issue. There is also unevenness in the level of skills and understanding, and it is clear that such inequalities reflect wider social divides, including exclusion from social capital.

In looking afresh at digital literacy we should therefore align it closer to more general media literacy. This also means that we should adopt an approach that sees digital literacy as composed of at least three key characteristics. First, it must be critical, so that users can ask questions like who creates the media and its content, for what purpose, and how it works. This includes language forms such as grammar and rhetorics, and directly affects how people use and interact with the media. Second, digital literacy must be creative, so being able to contribute content as well as simply being a consumer of others' content becomes important. This means, for example, writing as well as reading, and it is here that Web 2.0 tools could become significant in enabling active contribution within an empowered public sphere, but also with the clear danger of a participation divide arising. The third characteristic is that the approach to digital literacy should also be cultural and recognise the importance of entertainment, play, gaming, sharing content and videos, etc. This is already important for the 'net generation' of young people, who are also using ICT, especially Web 2.0 tools, to build personal profiles, identities and reputations. The new media is much more social and cultural than merely technical.

Gabi Zedlmayer also underlined the point that digital literacy can no longer be seen purely as access to technology but that it is much more about using, sharing and creating content. Strong partnerships are becoming important in this context, such as between ICT industry, schools, universities and NGOs. For example, Hewlett Packard, has established Digital Community Centres for young unemployed women in Ireland, Ghana, Hungary and South Africa. Together with UNESCO, the company also has a University GRID programme for young professionals looking to move up the employment ladder, and has established graduate entrepreneurship training facilities through ICT, often employing serious gaming approaches in how to run a business. Micro-enterprise training centres are also provided across 25 countries, and Hewlett Packard has developed a 'senior PC' called *TouchSmart* together with Microsoft.

An important issue in many of these initiatives is scalability, and this is where partnerships become so important. But we must also think innovatively and towards the future. Many young people no longer use email to communicate but instead instant messaging and social networking. These will determine the new digital literacy skills, and this means that ensuring that everyone in society can participate is a moving target which will change as new technology is developed, new skills are required, and new social, economic and cultural needs arise.

Discussion and Conclusions

This Session clearly showed that our perceptions of digital literacy are changing. For example, should it encompass being able to participate more fully in democratic life, such as inspecting local development plans or engaging in online political discussion? Already digitally disadvantaged groups risk being pushed beyond the participation divide if the skills of online participation are not included in digital literacy. Access to democracy could be diminished and this would also become a political problem. Digital literacy is thus much more than just access to infrastructure and services. It must also encompass the three characteristics of being critical, being creative and being cultural, especially as new Web 2.0 tools become mainstream and new societal challenges arise.

There are also digital dangers which must be balanced with the benefits, such as too much commercialisation of the internet, pornography, issues surrounding personal data protection, etc. However, such challenges always arise with new technology, as when the railways arrived the fear was that this would destroy identity, spread disease and create war. Of course all this happened, but the benefits far outweighed the risks, and the same will likely be the case today.

Finally, as well as ensuring that our notions of digital literacy change to keep up with the demands of real life, we must also recognise that people are different and wish to remain so. Thus, older people may wish to use the internet at a more deliberate pace as though it was 'slow food', and should not

feel they must emulate the latest technology fashion and keep up with the 'digital natives'. The important issue is that they are provided with the tools, awareness and digital literacy skills to get as much as they need from the internet, and also know how to get more.

Stream 2: Ageing Well

The Ageing Well stream considered the opportunities and challenges in developing new ICT-based products and services to meet the demands of Europe's ageing population. Sessions focused on user needs and expectations, the effectiveness of ICT in care environments, business opportunities from an industry perspective, and appropriate policy responses.

The rapid demographic changes facing Europe are well known: a growing number of older people, including increasing numbers of the very old (aged 85+); increasing number of people who suffer from some form of disability; an increase in those living alone; smaller households and more fragile family networks; and increasing demands for health and social care at a time when budgets are constrained. ICT offers solutions for the needs of older people, such as easier access to shops and services, maintaining contact with family and friends, and opportunities to contribute to their communities and society. But it is important to remember that 'the elderly' is not a homogeneous group. ICT solutions must be flexible and able to adapt to an individual user's needs and requirements.

At present obstacles to the successful uptake of ICT applications for the elderly are many and varied. They include: a lack of knowledge on, and understanding of, older people's needs; market fragmentation which makes solutions commercially unattractive; a lack of interoperability between different devices; concerns about issues such as privacy, security and autonomy; poor market incentives for industry to offer new solutions; and a lack of harmonisation in the reimbursement models of the Members States. Use of ICT in health and social care represents a particular challenge because of lack of evidence on cost-benefits, and ethical and regulatory concerns.

From a business perspective, ICT for ageing is a complex marketplace, characterised by a diversity of technologies and a complex mix of players, both private and public. Some market sectors are relatively mature whereas others, such as telehealthcare and independent living facilities, are still growing or emerging. A holistic approach is needed, where IT is just a tool to achieve wider objectives for seniors. The user experience is key. Providers should focus on the end-user and the service to be delivered then the technology will follow.

Effective end-to-end services will require coordination and partnerships between a wide range of actors. Some of these markets, such as real estate for the elderly, will rely on substantial private investments and the necessary business models are still emerging.

Government has a role here through helping to create a favourable environment for new innovative products and services, including through public procurement in areas such as health and social care. It can help build awareness on older people's needs, with involvement of families and healthcare professionals. It can also help foster acceptance and uptake of innovation by ensuring that the various players have the economic incentives and that these are well aligned, so as to reduce uncertainties and risks. Public funders, including the Commission, should demand more convincing business cases from demonstration projects. Agreed evaluation parameters would also help to build political commitment.

PS2: Ageing Well – User Needs and Expectations

Session Chair: David Broster, Head of Unit "Information Society", IPTS, European Commission Joint Research Centre, Spain

Speakers:

- *Paolo Da Col, Director Community Care District Nr. 1, Trieste, Italy*
- *Jan Lorman, International Federation on Ageing, Czech Republic*
- *Heidrun Mollenkopf, Sociologist, BAGSO e. V./AGE ICT Expert Group, Germany*
- *Alan Newell, University of Dundee, United Kingdom*

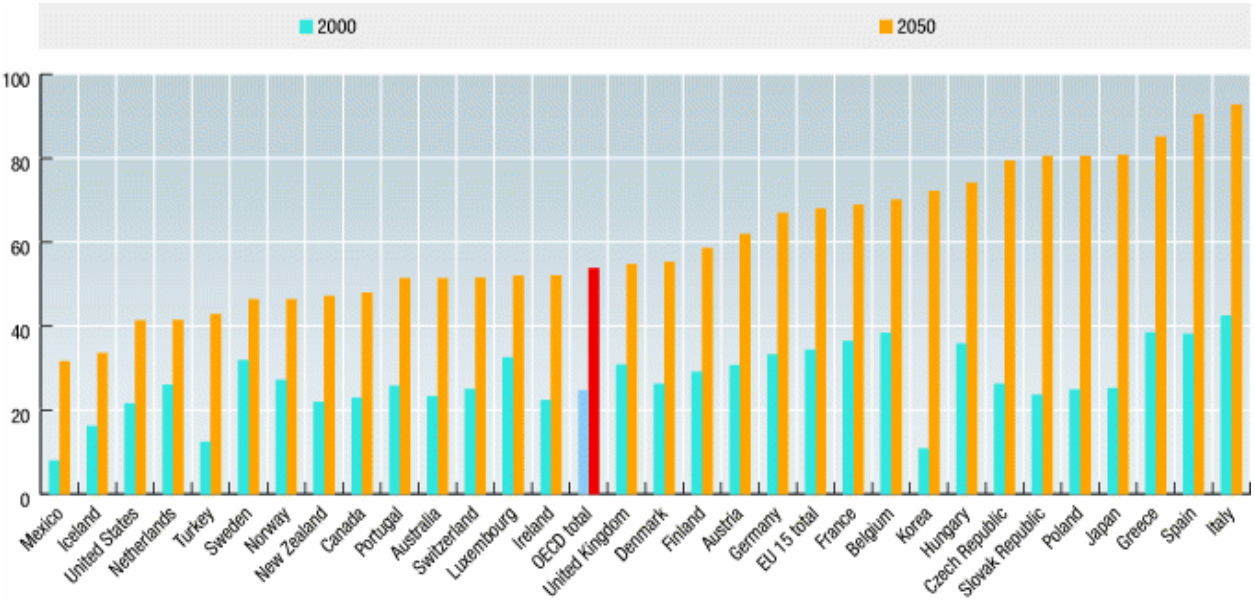
Across Europe, new products and services for ageing well are being developed to help address the demographic change and help elderly people and their carers, including those based on ICT. But how can we be sure they are actually what people want? How do we identify and understand what the future needs of elderly people and their carers will be? How can ICT help? Will the quality of life be increased? Will human contacts be replaced by technology? The speakers in this Session presented different user perspectives.

Kicking-off the session **Alan Newell** stressed that nowadays designers are completely unaware of the needs of older people, where at the same time the key to user benefits is good software and a good interface. A documentary telling the story of three older people trying to install iDTV in their home proved (without many words) his point.

Heidrun Mollenkopf stated that ICT is present in every domain of life, also in older people's living environment. We face rapid demographic changes: growing number of older people, with a particularly strong growth among the very old; a trend of living alone, of smaller households and more fragile family networks. ICT might offer solutions for the needs of older people - for instance community participation, access to information, getting access to shops and services - but at present ICT is provoking more problems than it solves, certainly for disadvantaged groups.

> *"Older people aren't a single group, therefore ICT must be adapted to their specific conditions and requirements."*
> *Heidrun Mollenkopf*

So, new information and communication technologies offer new opportunities but are connected with important barriers: only 40% of European households have internet access, ICT use - and skills - decreases with increasing age - and thus require new equipment and skills. Until now, the younger, healthier, better educated and wealthier older people profit most from technological developments. But technology should not create new barriers. We need to improve the conditions for ICT use in old age by the design of devices and programs, by accompanying measures (services, training, counselling) and by flexible, integrative training and learning opportunities. Very important is that there is no single, identical group of older people. ICT must be adapted to the conditions and requirements of the different phases of old age.



Demographic Changes in Ageing Societies (from presentation of Heidrun Mollenkopf)
(Source: OECD Factbook 2007 – Economic, Environmental and Social Statistics)

Jan Lorman presented a modern e-care system in the Czech Republic that was built upon the lessons learned from previous e-care systems that had often a very high cost for a very low rate of efficiency. A new vision on e-care is emerging that starts from the needs of older people and pays attention to a user-friendly interface using the possibilities of iDTV (everybody can handle the remote control of her/his television) and voice recognition and control functions. Evaluation of the new system shows that it supports the ability of older people to live independently, which keeps them happier and thus healthier.

Paolo Da Col illustrated – by showing impressive figures – that in the future there will be (1) an increasing amount of "old-old" users (i.e. those over 85); (2) increasing number of people who suffer from various levels of disability; and (3) that the number of people potentially dependent will be greater than number of potential carers. Furthermore, it's clear that elderly people prefer to stay in their home whereas public institutions generally tend to privilege residential care. The crucial questions now are: how should we approach and manage these new problems? and how should we finance the expanding public and private costs?

In order to take into account the users' point of view and needs, we have to provide easy and friendly access to services, we need to continuously monitor the users' satisfaction and assess the users' needs in a global and comprehensive way. Evaluating the outcomes is crucial to continuously improve the systems. These principles were illustrated by the 'Amalia project' in Trieste that focused very strongly on the 'loneliness syndrome'. It proved to be very successful: after 10 years number of deaths in loneliness had decreased from 50 per year to zero, and the suicide rate had decreased from 25/100.000 to 15. What was learned from the evaluation of Amalia was that a modern care system should aim at:

- privileging human contacts, taking advantage of tools that facilitate them;
- monitoring many cases at risk;
- preventing deterioration of health conditions and social exclusion;
- privileging homecare with the help of technology;
- guaranteeing safe conditions for those who want to remain in their homes; and
- offering an efficient and friendly alarm handling system.

In the near future, the 'Dreaming' project (13 partners in 7 countries) will build on these principles to build new e-care and e-Inclusion systems.

Discussion

During the discussion, it was stressed that:

- every e-care system needs to take into account the social needs, since most of the needs of elderly people are of a social nature (it was said that only 1 to 2% of the needs are of real medical nature). It is not possible to separate medical and social needs, and by paying more attention to social needs we will prevent medical needs.
- technology **must be simple**;
- in designing systems, we must also take into account the needs of the carers (formal and informal carers), especially because most of the informal carers are also older people with sometimes reduced skills to handle ICT.

Conclusions

The three presentations in this session all stressed very sharply the challenges of ICT for the elderly: a growing elderly population (in 2050, 53% of population will be over 65 years); all life functions (mobility, healthcare, recreation, learning, etc) being supported by technology; and older people being less competent to deal with complex technology. Solutions suggested by the speakers were to work on the design of the devices (make it 'stupidly simple'), to take accompanying measures for elderly people, and to foresee enough opportunities to train and learn.

A lot of hope is foreseen for modern and transparent e-care systems. An important condition for these kind of systems is that they not only take into account user needs but also the needs of the carers. But the plea for more and better systems (user friendly, ambient,…) has to take into account the cost aspect. Facing the background of a situation where there is one active person for every inactive person, we need new business models to implement successfully ICT-supported care systems. Another issue is that loneliness will be a major problem in the future, so we have to think about ways to deliver communication.

PS7: Ageing Well - Investing in ICT for Sustainable Elderly Care

Session Chair: Gérard Comyn, Acting Director, DG Information Society and Media, European Commission

Speakers:

- *Csaba Dózsa, eVITA, Hungary*
- *David Kelly, West Lothian Community Health and Care Partnership, United Kingdom*
- *Claus Nielsen, MedCom International, Denmark*

This session looked at the effectiveness of ICT in the care of elderly people, its efficiency and effectiveness and the business case for investment.

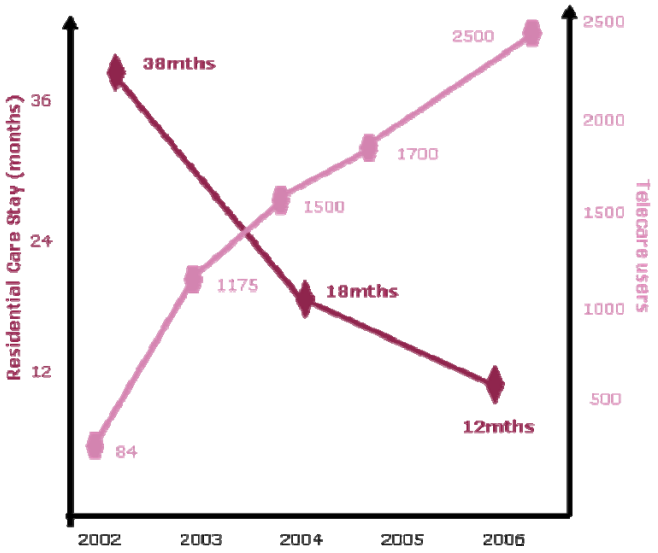
Claus Nielsen explained that Medcom's experience in ageing well has led to innovative solutions such as baby seal pups, adapted vacuum cleaners and floor washers. Ageing well is not just about healthcare – it is a mixture of needs delivered by different actors and often poorly integrated. Physically fit people may need emotional engagement (hence the seal pups); a person with dementia might not remember a hip operation and nurses caring for him afterwards might know nothing of his medication for dementia.

User needs remain poorly addressed by technology. Technologists often see the medical applications of their technology (e.g. an exoskeleton walking robot after sports injuries), overlooking its usefulness for ageing well. Politicians often have the wrong frame of reference: they see technology as some kind of white-heat complexity, not as potential labour-saving aids on a small scale and domestic level – bring them into Living Labs and let them see for themselves. Denmark, with a population of 5 million people, has announced a €6 billion fund for renewing the public sector, including a labour-saving technology fund of €400m. The market is stronger than is often realised: adults over 50 years of age polled recently were very positive about sensor technology and expressed interest in a robot that can bathe and dry them. Also, 84% of respondents said they wanted a patient briefcase.

David Kelly described a 7-year scheme that used telecare and telehealth technology as an integral part of health and social care packages. This resulted in improved levels of care and quality of life for elderly people, helping them to stay longer in their own homes, reducing anxiety for families and cutting costs for the public authority. The technology was fairly simple: the project was "technology-enabled, not technology-led". A basic package of home safety sensors - alarms, smoke, flood – was installed in 4000 homes with a 'home safety plus' installation offered according to need.

For instance, an elderly mother, being cared for by her son (himself in his 60s) leaving her bed at night and not returning within set parameters would trigger an automatic phone call to her son. He can call his mother over the loudspeaker phone to check that nothing is wrong. He sleeps easier knowing his mother is safe, so the whole family benefits. Should she fall, her average time on the floor will be 22 minutes, whereas before it was 4 hours and each extra hour on the floor means an extra day in hospital as well as more personal trauma. Technology augments personal care, it does not replace it.

The benefits can be demonstrated in cost-benefit terms. In West Lothian the service costs around £10 a week and has delivered a five-fold return: an upstream spend of £2.9m saved £43m downstream. The innovation lay in the organisational design, involving many professionals, all working for different organisations but offering one pathway for health and social care. What is needed is leadership and strategic vision to break through the silos, understanding how the technology can play a part, not be driven by it.



Cost Benefits of Telecare in West Lothian, UK (presentation of David Kelly)

Incentives which encourage co-operation and innovation are essential in delivering long-term change

Csaba Dózsa noted that Hungary faces the same demographic, economic, social and health trends as other Member States. To raise the quality of care provision closer to the European average requires more social care and more use of ICT. This presentation described a whole framework to deliver long-term change, based on enforced and incentivised co-operation and co-ordination between health and social care. The framework structure includes actors from R&D, manufacturers, service providers, education and training, and potential users, and sets a tight timeline (less than a year) for consortia to establish and pilots to get underway.

The scheme will integrate disease management, social services, sport and fitness, health monitoring and VR rehabilitation. Aspects to be addressed will include: prevention; rehabilitation; home, nursing and day care; management of chronic diseases such as diabetes; drug compliance; geriatrics; diet and wellness; and home assistance with signals systems. The highest impact is expected in the management of chronic disease which affect 2m people (20% of the population). Direct costs are hardware, software and medical devices; AAL assets developments; digitalisation of documentation; ICT development and education of patients and staff. Direct effects are expected on utilization of hospitals, outpatient clinics, and diagnostics; and on consumption of drugs and devices. Indirect and long-term effects expected are reduction of mortality rate, life years gained, quality adjusted life years (QALY), and improvement in quality of life.

Discussion

Discussion from the floor covered a variety of issues. It was noted that the challenge of funding more Living Labs in Europe is expected to become cheaper over time. Regarding who owns the business case, it is clear that the 'welfare society' does in the form of taxes collected from various actors. Another issue is how to change the money flow so that different stakeholders are motivated to co-operate. There are several aspects here: change the points scheme; let technology itself challenge the silos, e.g. the home help could check blood pressure; go for early adopters and champions; recognise that the doctor needs proof that the technology is stable; and negotiate based on concrete evidence of how expenditure upstream saves costs downstream. A further question was why so few technologists understand the need to cost the system. The EU should press the research field to address the business case more convincingly.

Conclusions

Ageing well is not just an e-Health issue. Neither is it about technology replacing all personal care. Research reveals a greater readiness by older people to use technology than expected. Ceasing to 'think in silos' is key. The variety, complexity and interaction of user needs and of stakeholders makes 'implementation frameworks' challenging. Innovation in designing incentives is needed: direct costs, direct benefits, indirect and longer-term benefits do not always align with the way departmental budgets are set. Agreed evaluation parameters would help to build political commitment; a strong business case has now been proved in many pilots. Funders, including the Commission, should direct the priorities of research and demand more convincing business cases from demonstration projects.

PS12: Ageing Well - New Markets and Opportunities

Session Chair: György Csepeli, Public Policy Director, Prime Minister's Office, State Secretariat for Informatics, Hungary

Speakers:

- *Tim Bellman, Global Head of Research & Strategy, ING Real Estate, United Kingdom*
- *Fernando M. Fournon, Chairman and CEO, Telefónica I+D, Spain*
- *Karsten Gareis, Project Coordinator, empirica Gesellschaft für Kommunikations- und Technologieforschung mbH, Germany*
- *Eric Pol, Managing Director, Tunstall Healthcare France, France*

The Session looked at the opportunities in ICT and ageing from an industry perspective.

Karsten Gareis presented some preliminary findings from a new study of barriers to the development of ICT and ageing markets in Europe. The study was looking at the current situation across 16 countries, including the United States and Japan, and using national experts.

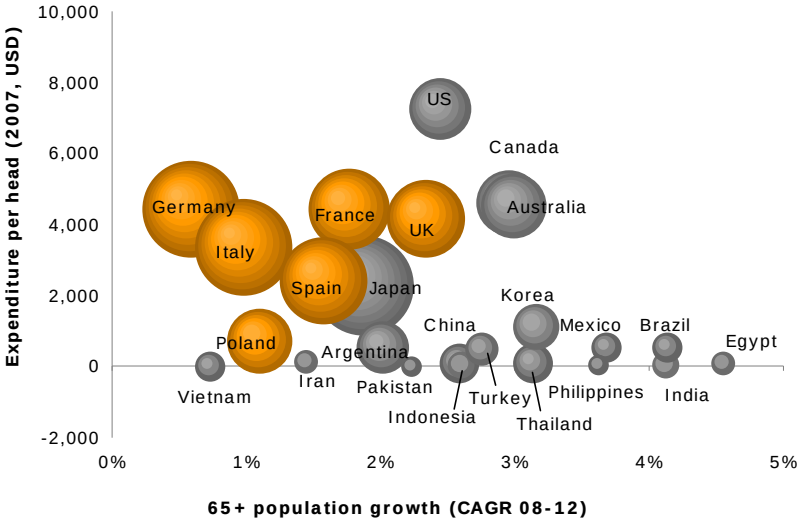
> *"Social alarms could be an enabling infrastructure for advanced telecare."*
> *Karsten Gareis*

This is a complex marketplace with a diversity of technologies and a mix of players both public and private (e.g. elderly users, carers, care homes, healthcare providers). First and second generation telecare are moving into the mainstream in many countries, but third generation telecare is still at the trial and pilot stage. Even in mature market segments, such as social alarms for the elderly, penetration rates can vary significantly between countries. Key barriers include differences in perception of the value of ICTs in care settings; limitations in public provision and funding; a continuing reliance on human support; lack of infrastructure and organisational readiness to use ICT; lack of demonstrated business case; and medio-legal uncertainties.

The study recommends promoting social alarms as an enabling infrastructure for advanced telecare solutions, as well as innovative procurement practices in the public sector. Policy measures to foster acceptance, uptake and innovation were also put forward. Participants were encouraged to read and comment on the draft report, which is available online (www.ict-ageing.eu).

Tim Bellman argued that the seniors market offered major opportunities for real estate investors, if they get the strategy right. ING has limited investments in this area at present, just €1 bn out of total assets of over €110 bn. But the market is growing fast as economies in Europe and elsewhere face up to demographic change. Europe is already an attractive market, with high healthcare expenditures per head and strong investment in new health facilities (see figure). Housing specifically equipped for the elderly is also in short supply: on average only 1% of European homes meet the needs of the elderly and with a replacement rate of only 1-2% per year it will take a long time to overhaul. Modifications within existing housing stock are necessary, together with the application of barrier-free and flexible design concepts in the construction of future housing.

For seniors, IT is a tool to achieve wider objectives. ING sees these as fourfold: flexibility – freedom to living where you like; community – sharing time with peers; individuality – taking time to do things differently; and stability – being able to relax in a safe environment. It is building new development concepts which aim to allow people to remain within the same area throughout their lives and include incremental care facilities. Senior housing is maturing as an investment product and alternatives such as these are attracting interest from a wide range of investors.



Elderly Population and Healthcare Expenditures[4] (presentation of Tim Bellman)

Concluding, Mr Bellman noted that the development of better, newer stock of facilities with new technologies is relatively straightforward. Retrofitting existing buildings is more challenging but a great opportunity to bridge the demand/supply imbalance. Senior Housing is about much more than application of new technologies – a comprehensive approach is needed to succeed. And finally, new technologies are a great tool but not a goal in themselves.

Eric Pol noted that both developed and developing countries face similar trends in ageing. Worldwide the proportion of older people requiring support from adults of working age is expected to increase from 12.3% in 1995 to 17.2% in 2025. Care needs can no longer be solved by people alone. The key question is how to unlock this market? The first point is to follow a service-led approach. We have to think about the quality of care: if we focus on the end-user and the service to be delivered then the technology will follow. As far as technology is concerned, open architectures and interoperability are key.

> *"If we focus on the end-user and the service to be delivered then the technology will follow."*
> *Eric Pol*

Government priorities are driving change, such as France's *Plan Grand Age* and the UK's *Putting People First*. Experiences to date (for instance, well known examples from West Lothian and Stockton-on-Tees) show that the cost-benefits of investing in telecare are overwhelmingly positive. In West Lothian, the average stay in a residential home was reduced from 38 months to 12 months over a four-year period, yielding significant financial savings for the local authority. More should be done to encourage co-operation at European level, such as benchmarking and sharing best practices, issuing guidelines, and joint research under European programmes.

Fernando Fournon emphasised that the ageing market has to address the needs not just of older people themselves, but also of informal carers, service providers and tax-payers. In the legislative arena, we need to update the European legal framework to fully reflect the realities of e-health services, for instance access to cross-border healthcare services, ownership of and access to electronic medical records, and research on a consistent legal status for telehealth. Privacy issues are also coming to the fore. From the technology perspective, the user experience is key. This requires attention to aspects such as design-for-all, adaptive interfaces and interoperability.

[4] Source: EIU, ING Real Estate Research & Strategy. Size of the bubbles denotes the % of population over 65 years of age over the total population.

The market is highly fragmented, with many opportunities to provide full end-to-end health monitoring solutions (e.g. remote health monitoring, location and tele-emergency, and well-being and lifestyle monitoring). Examples quoted by Mr Fournon included a home hospitalisation project in Andalusia and a tele-assistance 'living lab'. These require new business models based on ICT where telcos play an important role. The value chains are complex and meeting demands for end-to-end service requires actors to work with a wide range of partners. Health is definitely an economic opportunity and a hot topic for telcos, but they still have a long way to go to develop the right strategies, partnerships and business models.

Discussion

What should we do to unlock this market, given the analysis given by the panel? One important requirement is for early large-scale deployments, including at pan-European level, which would provide testbeds bringing together actors across the whole value chain. Related questions are who should be responsible for financial planning and should own the risk? In the current climate a hiatus in funding seems inevitable and the public sector needs to pick up the slack and commit money to innovative initiatives. The public and private sectors should also work together in developing new financial instruments. There is also a need for benchmark learning – not just getting to know what other countries are doing but really analysing and understanding the conditions which led to success.

Conclusions

ICT for ageing is a complex marketplace, characterised by a diversity of technologies and a complex mix of players, both private and public. Some market sectors are relatively mature whereas others, such as telehealthcare and independent living facilities, are still growing or emerging. A holistic approach is needed, where IT is just a tool to achieve wider objectives for seniors. Effective end-to-end services will also require coordination and partnerships between a wide range of actors. Some of these markets, such as real estate for the elderly, will rely on substantial private investments and the necessary business models are still emerging. Government has a role here through helping to create a favourable environment for new innovative products and services, including through public procurement in areas such as health and social care. It can also help foster acceptance and uptake of innovation by promoting economic incentives for the various players, and reducing uncertainties and risks.

PL4: Ageing Well in the Information Society – A Worthwhile Investment

Moderator: Wolfgang Blau

Panellists

- *Guus Broos, CEO, Orbis*
- *Erwin Buchinger, Federal Minister of Social Affairs and Consumer Protection*
- *Anne-Sophie Parent, Director, AGE*

We are all getting older, and there are more of us than ever before!" Will there be "a care divide" between rich and less well-off regions and citizens in the future? How can technology help to avoid this? What are the alternatives? Can ICT really make the significant differences we are hearing about? How can we move the agenda forward? This Session debated some of the biggest questions in this field.

"Already years ago, e-health and e-care was seen as a big business opportunity. But where is the uptake?" With this provoking question by **Wolfgang Blau**, the panel debate was launched.

The uptake will come but it is a complicated market and it's very hard to get a transparent vision on it. But the health market, now good for +/- 9% GNP, will grow to 16% and people will more and more adapt themselves to ICT's, learn to work with them. So, there are business opportunities and they will be taken up.

Policy should focus on mitigating investors' financial risks

One of the problems is that there is still a competition – or a feeling of competition – between personal care and electronic care. But it shouldn't be a competition, it should be a merger. And we have to realise that we're only at the beginning of the evolution of e-health and e-care. Look at the gaming industry, if we use all these possibilities of imagining, commodity-platforms, etc., we have enormous opportunities.

The Panel considered there were six major obstacles for a successful uptake of ICT applications in elderly healthcare:

1. Time to market is too long - typically 15 years between a pilot proof application and a mainstream product;
2. Lack of harmonisation in the reimbursement models of the different Members States;
3. Lack of trust in the devices, regarding issues such as privacy, security, autonomy;
4. Lack of interoperability between the different devices;
5. Fear of losing the human contact when e-care systems are implemented; and
6. Lack of knowledge on, and understanding of, older people's needs.

European policy should focus on providing the means to overcome the initial financial risks investors (i.e. ICT and healthcare providers) take when trying to market ICT solutions for elderly (health) care. Secondly, while there is (not yet) a real need to harmonise reimbursement systems, more coordination and cooperation between the Member States on (for instance) which products and services to reimburse, is advisable. Thirdly, we should invest in building public awareness on older people's needs, with involvement of families and healthcare professionals.

Stream 3: e-Accessibility

ICTs pervade every aspect of modern life, yet people with disabilities still face huge barriers in accessing ICT-related goods and services. Without this access they are unable to participate fully as consumers, citizens, patients, learners or in the myriad of other ways which the information society makes possible. Accessibility not only benefits people with disabilities, it also benefits the whole population, especially against the background of a rapidly greying society.

The EU has long recognised the need for action in this area. The 2005 Communication on e-Accessibility gave manufacturers two years for voluntary compliance, and the 2006 Riga Declaration called for all public websites to be accessible by 2010. We are still a long way from these goals being realised, however. The UN Convention on the Rights of Persons with Disabilities – which has been signed by all 27 EU Member States - also sets requirements for access to ICT.

Assessments of current coverage in Europe (specifically the MeAc survey[5]) show many gaps, with wide variations in approach and level of commitment across different fields and between Member States. Nevertheless, there is a strong correlation between the strength of national legislation and the level of e-Accessibility achieved. Some speakers argued for more specific EU-wide legislation to drive compliance across industry.

In terms of online media, there are clear reasons why organisations, both private and public, should ensure websites are accessible. As well as meeting their legal obligations, accessibility will increase their market share and audience reach, improve efficiency and reduce site maintenance; help gain a higher search engine ranking and ensure the site is 'future-proof' in terms of web standards. It also demonstrates social responsibility.

The frontiers are advancing all the time and accessibility is no longer just about websites. With devices such as TVs, mobile phones and PDAs increasingly important in accessing e-services we have to think about accessibility issues here too.

Accessibility needs to be tested in every phase of an ICT product or service, from design through to testing and implementation. as reiterated throughout the Conference, the participation of users at all stages is crucial for commercially successful design. In the case of websites, appropriate use of authoring tools and training in accessibility issues for all staff are key aspects. And success requires cooperation between many different actors.

[5] Study on Measuring progress of eAccessibility in Europe (MeAC), http://ec.europa.eu/information_society/activities/einclusion/library/studies/meac_study/index_en.htm

PS3: e-Accessibility – The European Approach

Session Chair: Jose Angel Martinez Usero, Technosite. ONCE Foundation, Research and Development, Spain

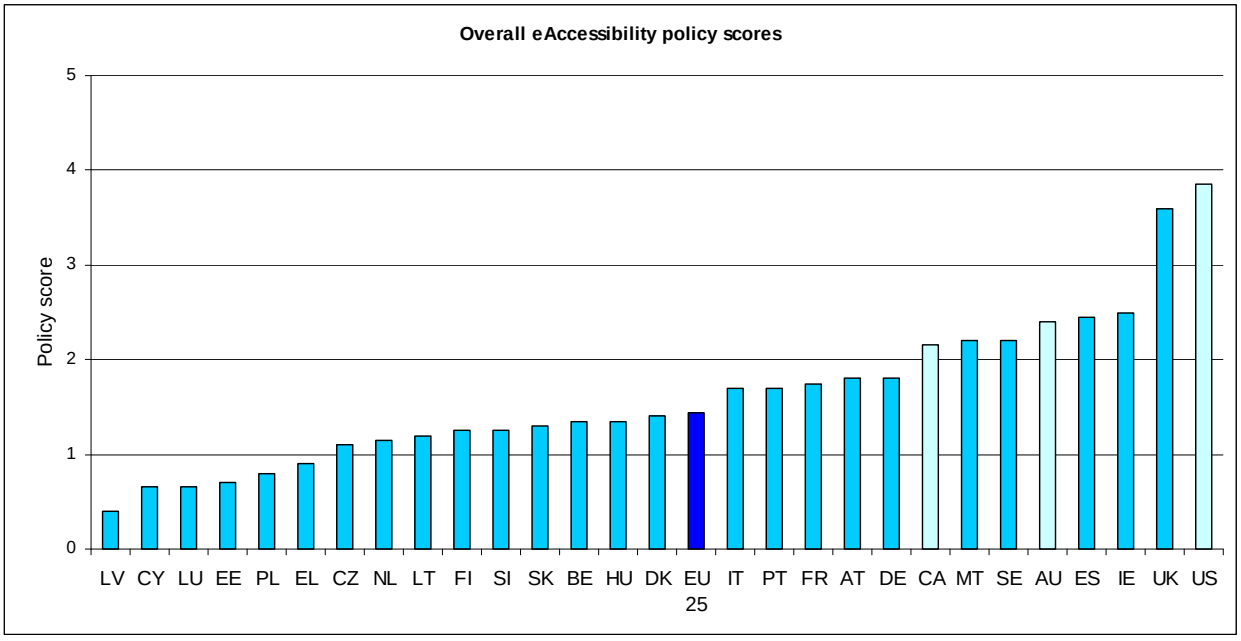
Speakers:

- *Rodolfo Cattani, European Disability Forum, Italy*
- *Kevin Cullen, Work Research Centre, Ireland*
- *Wenche Lyngholm, Ministry of Government Administration and Reform, Norway*

This session reviewed current thinking and actions at European and Member State level for a future-proof and sustainable way to ensure that accessible ICT becomes the norm rather than the exception.

Kevin Cullen's presentation reviewed legislative approaches to e-Accessibility in Europe and beyond, drawing on the results of two recent studies. Firstly, there is the diversity of technologies (e.g. the web, broadcast TV, digital TV, telecoms, ATMs, telephone kiosks and ticket machines) and the diversity of use contexts (e.g. home, workplace, education). Then there is a huge range of actors, both producers (manufacturers, telecom services, TV producers) and deployers (public services, banks, schools, employers). Legislation can be explicit, such as a regulation for telecoms services, or implicit in some wider requirement such as employment equality or public procurement. It can be top-down, imposing obligations on parties or it can be bottom-up, giving rights or other forms of empowerment/support to users. Legislation can be vertical, addressing specific ICTs and sectors, or horizontal with cross-cutting scope across different technologies or sectors.

Profiling the current coverage in Europe reveals many gaps, both at European level and at national level, with wide diversity in 'strength' of approaches, both between different fields and between different Member States. Nevertheless, there is a strong correlation between the strength of national legislation and the level of e-Accessibility achieved. The MeAc survey gives examples of legislation enacted in different Member States and for different topics.



e-Accessibility Policy Scores (presentation of Kevin Cullen)

Wenche Lyngholm noted that ICT is more and more a part of everyday life and the case for universal design is unassailable – from a commercial point of view as well as a social and ethical one. Universal design makes the technology usable for everyone, lowers barriers to its use, widens the user pool and grows the market. Usability sells! And it's cheaper to build in high usability from the beginning than to train or adapt later.

"Usability sells!"
Wenche Lyngholm

Norway now requires universal design in ICT under a law on anti-discrimination and accessibility (of 2008). It applies to all ICT products, services and websites, whether public or private, with some exceptions such as where another specific law already applies (e.g. in telecoms, transport or broadcasting). The requirement will apply to a producer's 'main solution' which is 'aimed at the general public' and has 'significant users' and would not involve an 'undue or unreasonable burden'. The difficulty of defining these terms and setting the benchmark for regulation is acknowledged. Regulations will be in place by summer 2010 and new products will have to comply within 12 months with a further 10 years to change existing offerings. Compliance will be monitored by the monitoring agency for public standards for e-Government.

Rodolfo Cattani said ICTs pervade every aspect of life, yet people with disabilities still face huge barriers to accessing ICT-related goods and services. The 2006 Riga Declaration called for accessibility of all public websites by 2010. The deadline for compliance is only two years away, yet the latest progress review reveals that currently only 5% comply. ICT is increasing exponentially in sophistication and speed, resulting in an increased exclusion of people with disabilities. For example, ATMs, ticket machines and domestic appliances all rely increasingly on touch screens. Digital TV is not a solution because blind people can't navigate the controls. Around 90% of books are not available to people with visual impairments. There is no consistent standard: manufacturers continue to set their own standards to meet their own needs, ignoring the needs of disabled people.

Accessibility should be embedded in goods and services right from the beginning. Accessibility is not a charitable act, it is a human right: articles 9 and 21 of the UN Convention on the Rights of Persons with Disabilities sets requirements for access to ICT. The 27 EU Member States have signed the convention and they must now live up to it. So must the European Commission, in the areas where it has competence. The 2005 Communication on e-Accessibility gave manufacturers two years for voluntary compliance but e-Accessibility is still not mainstream. One year on from the Lisbon conference it is still not clear what instruments will be put in place, raising doubts about whether this is still a political priority for the EU. Enthusiasm seems lower than two years ago, Mr Cattani concluded.

Compliance will not happen without legislation. EDF would like the Commission to propose a specific directive on web accessibility and a horizontal directive on e-Accessibility addressing all areas that are not covered by ad-hoc legislation. The new legislation should lay down a sustainable framework, taking into account rapid developments in the ICT sector, and standards should be the evolving tools that can ensure its implementation.

Discussion

Accessibility is a human right – not charity

Questions from the floor endorsed the need for legislation at the European level, and some speakers felt that the approach being adopted was too hesitant, with too many opt-outs and too long a timeframe. The timeframe for compliance with the new legislation in Norway was defended on grounds of practicality. There will be no financial support to private companies for compliance; they should recognise the market gain in eAccessibilty. A questioner asked what a directive would look like and how it would differ from the existing guidelines, methodologies and standards such as the

EC quality mark and the European interoperability framework? Mr Cattani insisted on the possibility for a specific horizontal directive, needing only political will to overcome resistance from producers who do not realise the (market) possibilities.

Conclusions

Much is happening but much remains to be done. Most Member States need to extend the coverage of their legislation and strengthen existing coverage. There will be no real progress without legislation. If the public procurement directives are to bite, legislation, regulation and common standards are needed.

PS8: e-Accessibility - A Dummies Guide to Web Accessibility

Session Chair: Judy Brewer, Director, Web Accessibility Initiative, World Wide Web Consortium

Speakers:

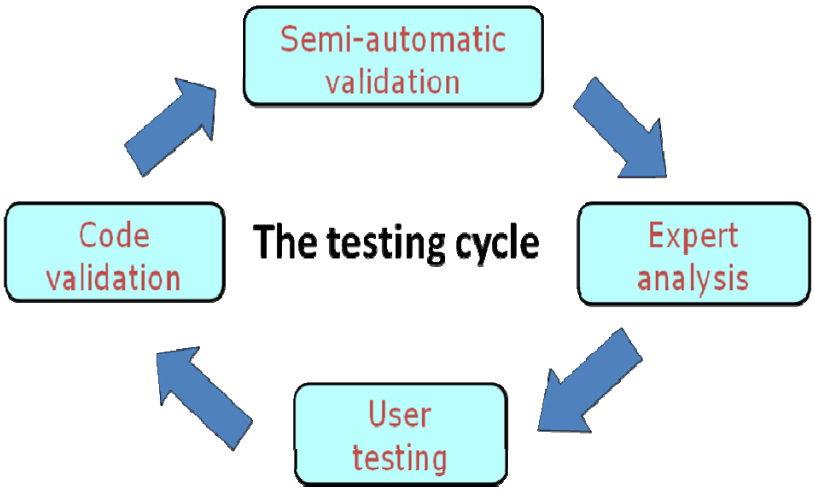
- *Alexander Fase, Project Manager Web Guidelines, ICTU, Netherlands*
- *Christelle Lortet, Project Officer e-Accessibility, Voyages-SNCF, France*
- *Matt May, Accessibility Engineer, Adobe Systems*
- *Steven Sintine, e-Accessibility Advisor, National Centre for IT in Public Administration, Project e-Accessibility and Public Administration – CNIPA, Italy*

"What is all the fuss about? So my website is not accessible? So what?" This Session offered an executive insight into how to significantly improve your website through a few simple actions, leading to new markets and customers and even avoiding costly legal battles.

According to **Steven Sintini** there are six important reasons why we should make websites accessible:

1) to fulfill legal obligation and reduce legal liability
2) to demonstrate social responsibility
3) to increase market share and audience reach
4) to improve efficiency and reduce site maintenance
5) to be ready for the future of the Internet and
6) to gain a higher search engine ranking.

Testing the accessibility is not an isolated activity during the user test. It should be done across the whole development cycle: from design to development, testing, implementation and continuously when the website is maintained. There are numerous tools available to support the testing of web-accessibility. Automatic testing is not enough: a testing cycle is a continuous flow of semi-automatic validation, expert analysis, user testing and code validation. To demonstrate this, Mr. Sintine demonstrated the use of the A.I.S. web accessibility toolbar (available at www.visionaustralia.org.au/ais/toolbar).



Automatic testing is not enough! (from presentation of Steven Sintini)

Alexander Fase started by pointing at the challenges of e-Accessibility. Firstly, the number of people with (visual) disabilities will double by 2020. Secondly, we face an ageing population, the number of the elderly will double by 2030. And, thirdly, it is not only about people but also about devices: we

use different browsers, our mobile devices exceed already fixed phone connections, and search engines like Google will use criteria like accessibility. Accessibility is about making things better without making them heavy and difficult. The key should be that we try to make websites that look the same, that function in the same way but are based on different principles. This way we get websites that use valid codes, are much more accessible and need smaller amounts of memory.

> *"Accessibility is about making things better without making them heavy and difficult"*
> *Alexander Fase*

Old fashioned websites are limited re-usable, technologically complicated and limited accessibility. The consequence is that people are excluded, that there is a 'low return on investment' and that it is difficult to keep up with new technologies. The Netherlands has developed the quality model 'Web Guidelines' (www.webguidelines.nl). Its basic principles are: correct use of standards (W3C); building with layers; semantics (using HTML as it is intended); accessibility and reduction of complexity; and strict separation of content, design and function. The results are impressive: all national governmental websites are obliged to use the Web Guidelines and they have a score on accessibility that is 10 times higher than the average. Local governments are starting to use the tool also.

The central message of **Matt May** was that everyone involved in the content creation process must be aware of the way content is used. Today we have hundreds of millions of people who are creating html-content without any html-knowledge. They are using word processors (like MS Words), programming tools (like Dreamweaver), are producing database-backed content, and Web 2.0 applications like YouTube. Every time, this information is changed from one format to another, you lose quality and thus accessibility.

So, the content creators must ask their authoring tool vendors for valid HTML, accessible template content, accessible components, accessible documentation and evaluation tool support. We must exert market pressure on this. While expecting more from the authoring tool vendors, we also need to train the authors: learning to use authoring tools, learning to work with content, learning to keep in mind accessibility, learning about text size, headings, tables, columns, use of colours, keyboard navigation, etc..

Christelle Loret described SNCF's experiences in becoming an online retailer. Voyages sncf.com is France's largest online seller, with 700.000 users daily and 3 transactions per second. E-Accessibility offers a competitive advantage for SNCF, as well keeping in mind the French e-Accessibility legislation (2005) and its future requirements. Since the start of the website upgrading process, e-Accessibility has become a part of each project. For every amended page, all e-Accessibility criteria have been taken into account. Voyages SNCF.com has chosen to involve developers also in generating ideas for the designs and this adds to the accessibility of the webpages.

A key element in the e-Accessibility strategy is training for everyone. For example, Voyages SNCF.com organised accessibility training for developers, graphic designers and a project manager. The training contained: explanation of accessibility and its application in live test conditions, review and debate of each point of accessibility criteria and how to assess a website.

Discussion and Conclusions

The four presentations identified some important principles for creating accessible websites using the Web Content Accessibility Guidelines:

1. Accessibility needs to be tested in every phase of the making of the website (design, development, testing, implementing and maintenance).

2. Accessibility not only benefits people with disabilities, it also benefits the whole population, especially against the background of a rapidly graying society.
3. Authoring tools have an enormous potential to make the production of accessible web content more efficient. There are many supporting features to look for in authoring tools.
4. Training in accessibility issues is a key issue for ALL staff members involved in creating websites; programmers, technicians, authors, quality managers. Knowledge about accessibility issues is a key competence in the web creation profession.

PS18: e-Accessibility – Life-changing Solutions

Session Chair: *Vappu Taipale, STAKES, WHO Collaboration Centre for Mental Health, Finland*

Speakers:

- *Ginger Bastian Claassen, Siemens e-Accessibility center, Germany*
- *Guido Gybels, Royal National Institute for Death people, United Kingdom*
- *Nigel Prankard, DVB Product Manager European TV Design center, United Kingdom*
- *Cynthia Tulip, Marketing concept manager Rabobank, The Netherlands*

Accessibility and assistive technologies aren't just about websites. From mobile phones to digital TVs, from ATMs to payment devices in shops, users and industry are working together to design accessible devices and technology that can help us all. These problems do not 'only' concern people with disabilities - the 'only' here being 15% of the European population. And the market is growing. With the ageing of the population customers expect – indeed require – accessible solutions will grow every year. The number of 'over 65' people in Europe will reach 103M by 2050. So far it is an untapped market. On top of that, as case studies show, accessible solutions tend to also become preferred solutions for the general public as well.

Guido Gybels noted that the world we live in today is determined so much by access to information and communication technology: without access to ICT citizen's participation in society is hardly impossible. And yes, the digital divide is of a complex and diverse nature and so solutions are not simple and must be diverse too. In the EU we need at least a form of common denominator. In the economical debate, we have to realise that it's not only about the costs of e-Inclusion but also about the costs of excluding people. But, technology isn't always a threat: it's a threat when it's badly designed, without taking user perspectives into account. Technology gives us a lot of opportunities and the last years, given the evaluation in broadband, converging technology, ambient technology, smaller chips (Moore's law), have shown there is an enormous potential to overcome barriers. But we need a policy context for e-Inclusion, because free markets and competition do not cater for all of us, especially not for smaller user groups. Let's not be too pessimistic, there are already hundreds of good products on the market like Talk by Text, avatars (mainstream gaming technology to provide sign language), screenphones, foldable keyboards, etc.

The discussion on e-Accessibility and e-Inclusion, according to **Nigel Prankard**, is not only a debate on advanced technologies like PCs, websites and cell phones. We need to pay attention to all technologies using microchips and one of the most familiar is the television. Nowadays, iDTV has an enormous inclusion potential because of the fact that the TV is widespread. EICTA, the European ICT Industry Association, works with user groups where the user needs are discussed and brought forward. On the basis of this discussion, a reference document is written, describing all specific needs of specific user groups for consumer equipment manufacturers. This reference document forms the basis for Memoranda of Understanding with the EICTA members. This way, a lot of smaller changes, that aren't too costly are already implemented. On the other hand, sometimes it is simply too expensive to adapt standard technology to specific user needs (for example, text-to-speech technology as standard interface in external decoders). But, you can explain this to the user groups, creating more awareness about the (im)possibility of certain solutions.

For Siemens, incorporating accessibility in mainstream product is self evident, explained **Ginger Bastian Claassen**. You simply have to look at the figures to know that people with disabilities will be a growing market segment. And you can incorporate specific user needs into the design of products. Siemens has invested a lot in working around e-Accessibility and design. Firstly, users are involved in the very early stages of design, not by bringing disabled people in from the outside but simply by employing them. Siemens has blind engineers, engineers in wheelchairs, etc. Secondly, the company

learns from users by testing its prototypes with specific user groups. Thirdly, Siemens participates in international R&D projects to learn about disability and vice-versa. Siemens supports these projects by sharing its knowledge and also cooperates with industry associations. Furthermore, Siemens has a corporate statement on e-Accessibility and a central team. A one contact point for inside and outside for every question and issue about e-Accessibility. Concluding, Mr. Claassen reiterated his central message: you need to know the requirements of the specific user groups and therefore you have to involve them.

"The main issue in e-Accessibility is changing mindsets"
Cynthia Tulp

Cynthia Tulp stressed that the problem with e-Accessibility and technology in companies is not that it is hard to adapt the technology. The main problem is to change people's mindset. The banking sector has invested a lot in ICT, not only for internal purposes but also for client relations and assistance. But this has put a lot of pressure on its clients, especially those with physical limitations. And because the Rabobank – as a cooperative bank - pays close attention to good relations with its clients, they decided to set up a special team on e-Accessibility with as a prime target group people with visual disabilities and the elderly.

As a first step, Rabobank set up a consultative structure with patient associations, interest groups and consumers. The insights of these discussions were translated into business requirements and then started up a process of change and adaption. This happens in three layers. A first layer is about the adjustment of existing services, for example ATMs with speech functionality. A second layer is about making people able to use the services, for example training programs for people to learn to use internet banking. The third layer is then about the use of technology in general, for example training programmes to learn to work with a PC. In the coming years, Rabobank will invest in the use of iDTV for online banking. It takes a lot of time, it takes a lot of effort but Rabobank is ahead of other Dutch banks in this field and beliefs it will pay back in the end.

Discussion and Conclusions

This Session showed that the debate on e-Inclusion is not solely a debate about the costs of inclusion. It is also about avoiding the costs of exclusion and about possible gains for industry. The different speakers gave numerous examples of interesting products from which specific user groups (blind people and people with visual disabilities, deaf people, older people, physically disabled people,…) could benefit. The presentations showed that investing in accessible technology can be of commercial interest too, not least because accessible products have also a potential for a broader range of ordinary user groups (everybody benefits from simple products).

An important condition for a successful implementation of accessible technology is the cooperation between the different actors. In the case of digital TV for instance – an important channel because of the pervasive character of television - the cooperation of broadcasters is essential. And, as stressed in many presentations in many sessions, participation of the users in all stages of the design of products is the key to commercially successful design.

Stream 4: Investing in e-Inclusion

For e-Inclusion to realise its full potential it has to make sense from economic and commercial perspectives. This Conference stream looked at the overall economics of e-Inclusion and business attitudes, as well as specific aspects of the investment case in areas such as broadband, inclusive public services and social innovation.

Up to now economists have focused primarily on the 'hard' aspects of ICT, such as network access and communication costs, which are tangible and therefore easy to measure. 'Softer' aspects such as e-skills are just as important in making the case, however. Studies show a strong correlation between eSkills readiness and Network Readiness, with European countries spread across a broad spectrum. Other evidence shows eSkills improve employability, especially for disadvantaged groups, and so should be a key focus for investment.

The economic case for broadband investment is clear but needs to be better made. The challenge is both to extend broadband access to all regions, and to upgrade from copper to fibre in anticipation of new high-capacity services. Good practice business models are important to demonstrate what can be done and these can have a catalytic effect on other regions. The regulatory implications of next generation broadband networks also need to be considered. Regulation should promote the move from pure access to better quality and higher capacity within a market framework that encourages new entrants and stimulates private investment.

Online public services are now widely available, including for the 'socially disadvantaged', a group that is much more expensive for governments to reach. There is a paradox here, however, in that many of these people are not online or using e-Government services. Investment in more inclusive public services requires a strong commitment from both central and local authorities, close working between all relevant stakeholders, and for delivery to be financially sustainable, which means looking at the potential long-term savings.

Social networks (based on Web 2.0 technologies) facilitate inclusion in a variety of ways and are powerful tools for community building, user empowerment, knowledge creation and knowledge sharing. They enable people to self-organise and to create networks that are self-motivating and have their own dynamics. They put us on the brink of major social innovation. Social enterprises, which give conscious consideration of social and environmental issues, are also a powerful force for change.

Alongside the public sector and citizens, the private sector has a key role to play in making e-Inclusion a reality. Economic, social and political incentives are necessary for this to work, all of which come together in a successful business case. Companies should no longer be addressing specific categories of users but developing products and services that meet everybody's needs. This means fostering innovation and creativity, and ensuring that customers and users play a central role in the research and development process. Europe should lead by example.

Methodologies are still evolving here and data is sparse. Much more information on impacts is needed across all areas.

PS4: Investing - Economics of e-Inclusion

Session Chair: Paul Timmers, Head of Unit, ICT for Inclusion, DG Information Society and Media, European Commission

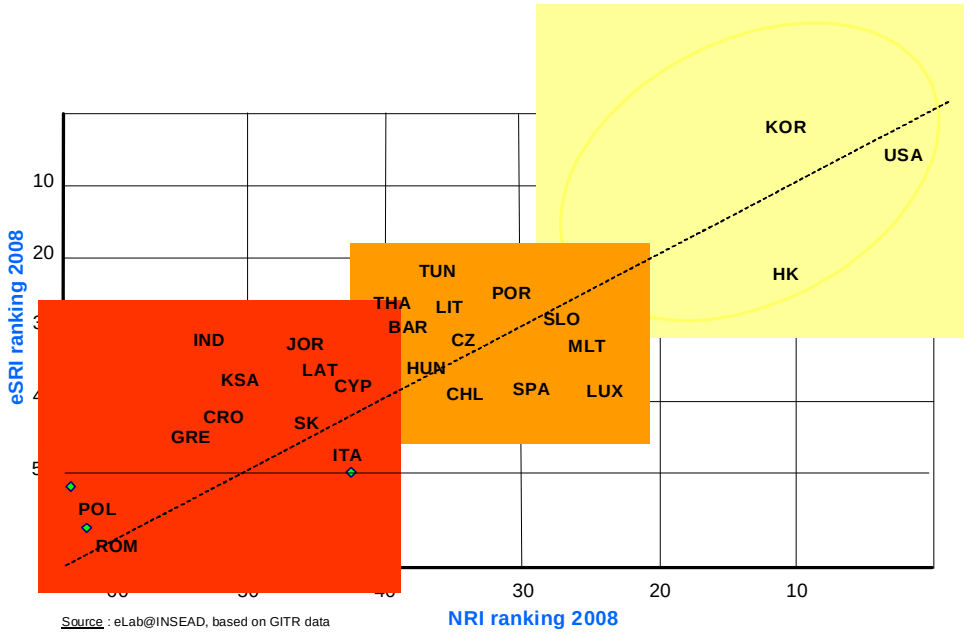
Speakers:

- *Hannes Ametsreiter, Telekom Austria, Austria*
- *Cristiano Codagnone, University of Milan, Faculty of Political Science, Italy*
- *Bruno Lanvin, INSEAD, France*
- *Lizanne Scott, Motorola Inc., Global Government Affairs, Belgium*

This session explored how to demonstrate that investments in e-Inclusion makes sense from an economics perspective. The importance of this was put in the perspective of the current financial crisis, pointing out the need to remain a cohesive society through the downturn and get a head start when growth returns.

Indicators for e-Skills Readiness and Network Readiness show a strong correlation.

The Network Readiness Index (NRI) developed by INSEAD, indicating the readiness of countries towards benefiting from ICT, indicates still today a lead by Scandinavian countries, Switzerland, the USA, Singapore and the Netherlands. **Bruno Lanvin** indicated that in relation to NRI there is a lot of interesting developments, in particular vis-à-vis potential. On the supply side there is a demographic development, and education and training. However, currently the talent markets show not enough eskills available in Europe, or anywhere else, and the shortage will go up within the coming five years. Relaxing legislation on skill emigration will help but will not solve the problem completely.



Correlation between Network Readiness and eSkills Readiness (presentation of Bruno Lanvin)

eSkills readiness (eSRI) shows a strong correlation with the NRI. Three groups of countries can be distinguished: leaders, intermediate, and laggards, all with their own challenges. A lot should be learned from these specific situations, as we will need to do more research in order to be able to respond to the skills shortage challenge.

Christiano Codagnone presented a model designed to grasp empirical evidence on economic impact of e-Inclusion. In exploring 1000 cases of e-Inclusion the researchers found only 50 that reported on economic impact. Such information should be collected systematically so as to understand the impact in real economic terms. So far the researchers found that people with eSkills on average earn a 5% higher wage, and have a 5% higher chance of being employed. However, for the 50-64 age range the likelihood of being employed goes up to 20% above those lacking the eSkills. Not much hard proof is out there; so far anecdotal evidence indicates there is a positive effect, now we need to get it in real terms. The model presented would help.

One of those cases of a positive effect, though more in social terms than in economic terms, is the Buntes Fernsehen initiative in Engerwitzdorf. **Hannes Ametsreiter** explained that the village really was a valley where people lived in clusters. As there was no clear city centre, the village lacked cohesion. By enabling and stimulating the joint production of local TV people were encouraged to get to know each other. There are now more than 600 local video productions, and they are very much appreciated. Buntes Fernsehen led to identity building, better mutual understanding, improved digital literacy and helped close the digital divide.

Lizanne Scott focused on business concerns and aspects of e-Inclusion, and explained what Motorola has done to better address e-Inclusion needs and make money at the same time. She explained that employment statistics show that we are not able to employ people with disability very well. However, with the right tools, employment becomes much more available. Specific Motorola products are built to respond to the needs directly, or to interact with specific support tools from assistive technology partners. In order to bridge the digital divide she called for:

- Large-scale funding intervention, in particular when taking into account the long payback periods for investment. Motorola welcomes the Commission's package of activities in relation to the financial crisis, including a focus on broadband and inclusion.
- Spectrum is also needed to allow the assistive technologies to work. There are initiatives at Commission level towards this, although there is resistance at national level which makes it more difficult to work.

Experience shows that sustainability can be truly driven by mass market solutions. Working in partnership to achieve this is necessary, and common standards are key to ensure interoperability.

Discussion and Conclusions

Evidence shows that people with low education, if provided with digitally literacy have a 5% higher likelihood to be employed, and have in average 5% higher wages. When looking at males between 50 and 64, the likelihood to be employed when having experience with ICT increases by up to 20%. Similar data were presented on employability of disabled people. As unemployment is staggering compared to the general population, it is clear that special equipment and services could allow much better access to those resources that are available in society.

Beyond employability, it is e-Skills we need for our economy to be competitive. A snapshot was provided on the situation of digital skills, and the challenge that lies ahead of having the skills available that our economy need. By developing e-skills we can address this gap. However, to generate real investments in this area, it is essential to demonstrate the return on investment.

A way forward for industry is partnering with suppliers for specific equipment to ensure compatibility. In its general design, ease of use and compatibility are central: this makes systems easier to use not only for users with specific needs but for everyone.

Solid evidence on economic impacts is still hard to find, however, as we are still in the early stages of collecting such data.

PS9: Investing - Social Networks, Social Enterprise

Session Chair: Matthias Traimer, Austrian Federal Chancellery

Speakers:

- *Sam Connif, Livity, United Kingdom*
- *Valerie Frissen, TNO Information and Communication Technology, ICT and Policy, Netherlands*
- *Volker Schörghofer, Hauptverband der österreichischen Sozialversicherungsträger, IT Division, Austria*

This session focused on social networks, and the power of Web 2.0 tools in terms of "pulling people in" as well as being suitable to address specific needs, directly. It is clear that there is an inclusive power in terms of community building, user empowerment, knowledge creation and knowledge sharing, and these tools help to get people to self organise. This session also expanded on the development of electronic identity cards as a means to better organise services and to make it possible to empower users on the use of their data in a safe way.

According to **Valerie Frissen**, the current stage that we are in, in terms of development of the internet, is very much "social". Quoting Carlotta Perez: "*The most interesting stage in technology development is the stage where societal engineering takes place."* And this is that time. Web 2.0 could be called the Social Web. The innovations that take place in this phase are in social networking.

Networks are self-motivating and have given birth to strong social dynamics

The exploitation of user-generated value is coming up in many different ways, leading to all kinds of new value creation, including "social capital". This cannot all happen without an active role of users, and it requires an open architecture, easy-to-use environments with exchangeable building blocks allowing "mash-ups". The social web developments help get people to be, and act, online in an amazing pace. Just to illustrate this: in The Netherlands the "Hyves" social network now contains over 7 million individual profiles, which is almost half of all Dutch citizens (about 16 million people).

Web 2.0 can have inclusion as an explicit objective, but it also has an inclusive power in itself, in terms of community building, user empowerment, knowledge creation and knowledge sharing. In addition, it empowers people to organise themselves easily. Ms. Frissen presented several examples to illustrate this, including:

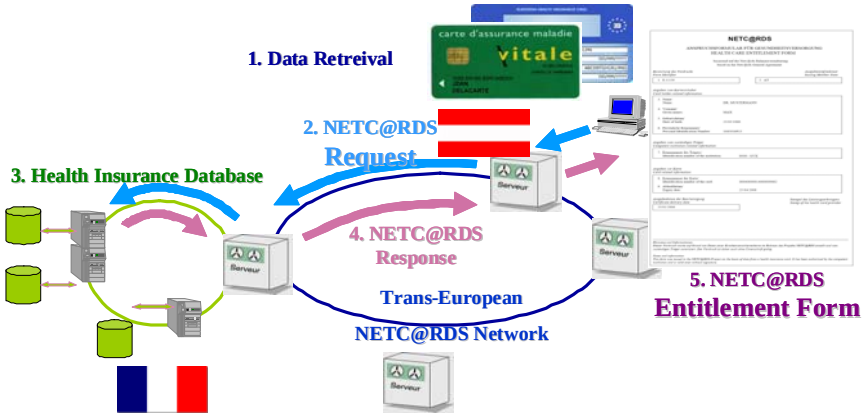
- Buurtlink.nl – reinforcing the local community. You fill in your postal code and are then connected to others in the same geographic area with similar interests.
- Mahreb.nl – building a virtual home. Done by and for young Moroccans in the Netherlands sharing and discussing experiences.
- Patientslikeme – about patient empowerments, exploiting the 'wisdom of crowds' by sharing experience in asking questions.
- http://radar.vlieghinder.nl – noise net: influencing the political debate by measuring noise, real time, on plane arrivals and take-offs. As it is so well measured it is considered an authoritative source that directly informs the policy debate.
- fundable – crowd sourcing/micro-financing of all kinds of micro initiatives, based on the impact of long-tail economics effect.

Already these examples demonstrate the inclusive power of the web 2.0 tools, through its empowerment of individual citizens as well as civil society. Evidence about impact is still very scattered and highly anecdotal: there is an urgent need for systematic data collection in order to assess opportunities and risks.

Sam Connif set up Livity as a social enterprise (i.e. a business that takes into account social and environmental benefits). It focuses on young people because they are much more likely to listen to Apple, Coke and Nike messages than to government messages, so there is a lot of potential for improvement in addressing young people. Livity created an environment in which teenagers can come in to develop ideas online and in magazines, etc. It is a marketing and communications agency aiming at the young. Results so far: 25 people who would have a hard time to find a job gained full employment, and there are many more to come now Livity is about to scale up its operations. When given the tools, we see that people can do great.

Livity also developed a television show, about the local city youth, with young people having a voice to determine the stories and the moral cliffhangers to be addressed in this. The choice is given to kids to determine what to do next, in difficult situations. The series uplifted the calls to Childline, more than anything that had been done before. Sam emphasised that we are learning a new language: a language that is changing absolutely every day. And in being able to use that language, it is important not to be distracted by technology.

Volker Schörghofer was responsible for the introduction of the eCard in Austria. He expressed the need to have some guaranteed electronic ID when it comes to real business. The Austrian eCard started in the healthcare corner, moved on to an Austrian citizen card and now inspires the Netcard, which is aiming to deploy at European level. It combines 6 different European e-cards, and is sponsored by the eTEN Programme.



The NETC@RDS scheme (presentation of Volker Schörghofer)

Advantages of eCards are abundant; in particular they allow interchange of data and combination of services. At the moment there are 8.4 million active eCards in Austria. Doctors, hospitals and pharmacies are online and there have been 332 million consultations since 2005, currently about 6 million consultations per month. Financing of the Austrian card is done by the enterprises delivering services, willing to do so as it saves a lot of money on paper exchanges.

Discussion

Asked by the Chair what European policy-makers should do to improve and foster the merits of social networks and social enterprises, Valerie Frissen answered that not much is needed to fuel a community and give birth to a lot of social dynamics. Many policy initiatives try to take charge, to define what is happening. However, by listening better to users you might be able to respond

proactively, for instance in providing information, and make tools available to users to "do it themselves" where possible.

The social web can bring many positive opportunities, yet it is recognised that it also brings new challenges and can be used "for the bad". Being aware and active about this is needed.

One of the emerging issues is how to deal with privacy. For instance, young people today seem to be less aware of potential privacy impact of their actions online. Also, with today's tools there is a risk for 'the loud to become even louder'. We need to invest in media literacy. Not so much media skills or internet skills, but media wisdom.

Conclusions

We are on the brink of major social innovation. The first signs are already out there, as many specific examples of new online initiatives demonstrate. Social enterprises, like Live Magazine and Livity, are enterprises that emerge in this transition period, and they are typified by their conscious consideration of social and environmental impact on whatever they do, up and beyond being an economically sustainable business. New opportunities come hand-in-hand with new challenges. We should be aware of this and respond accordingly.

PS14: Investing – Future Broadband Challenges: the Long Term View

Session Chair: Lucilla Sioli, Head of Sector, DG Information Society and Media, European Commission

Speakers:

- *Malcolm Corbett, CEO, Community Broadband Network, United Kingdom*
- *Kees Rovers, Director and Founder, Close the Gap BV, Ons Net, Netherlands*
- *Georg Serentschy, CEO Telecommunications, RTR-GmbH (Austrian Regulatory Authority for Broadcasting and Telecommunications), Austria*
- *Anthony Walker, Chief Executive, Broadband Stakeholder Group, United Kingdom*

The Chair, **Lucilla Sioli**, introduced the session by asking whether it was possible and desirable for regions to bridge the broadband gap, and catch up with large urban areas in terms of access, speed and price? The next decade will be characterised by investment in high-capacity broadband networks, more costly than legacy networks, with increased scope for public-private partnerships where market forces alone cannot deliver. What is the role of government in this environment? What good practice models are available to guide this process, and what will be the impact of the current economic downturn?

Anthony Walker noted that each country needs its own solution for next generation broadband because of their different geographies, demographics, legacies and regulation. Nevertheless, most face similar challenges, as illustrated from the UK perspective. Three themes are important. First, investment is needed because it is commercially, socially and culturally transformative. Broadband takes the internet to a new level of benefits, Second, however, there are severe challenges looming, including the fact that technically the limit is being reached in using legacy copper wiring, so that expensive fibre-to-the-street cabinet, and ideally to the home, will soon be needed. There is as yet no clear business model for this, and the financial crisis could make the situation worse. Third, if the market fails in rural and remote areas, as is likely, policy-makers are faced with a challenge. They need to be clear about the public value benefits, and allow new entrants to enter the market alongside existing players, such as innovative new local partnerships between public, private and civil sectors. This should include reducing supply side barriers like inappropriate regulation, and opening up civil engineering works, as well as stimulating the demand side through better services and content. A joint commitment is also needed from both private and public sectors that the Universal Service Obligation (USO) should in future include broadband.

> *"Next generation broadband networks demand a new regulatory regime."*
> *Georg Serentschy*

Georg Serentschy focused on the regulatory implications of next generation broadband networks and access, by suggesting that the core issue now needs to change from a quantitative and purely access approach to one emphasising quality capacity through higher speeds and better content. Regulatory policies need to support this change by encouraging a strong. competitive market-driven agenda and a structured permanent benchmarking process. The regulatory challenge is that existing networks are coming to an end at the same time as new innovative services are demanding higher capacity, lower cost and a shorter time to market. Next Generation Access (NGA) thus needs fibre-to-the-home (FTTH) supported by the Next Generation Network (NGN) on which NGN services can be delivered. There are several regulatory implications, including an economic policy in which providers are able to achieve a certain market share, an industrial policy ensuring competition and investment opportunities, and a technical policy to provide suitable network typologies and to cope with the interference of different technologies. All this will be difficult to manipulate, but not impossible. In fact, the future is already here, it's just unevenly distributed.

Kees Rovers described where this future can already be found, for example in the *Close the Gap Model* in which citizens, local communities and local enterprises play a key role through solidarity and cooperation to provide their own broadband solutions. Nuenen in the Netherlands has a population of 25,000, is 100% connected, and 90% of this is owned by the citizens' *Ons Net* (*Own Net*). A non-profit business model has been developed focused on seven pillars of success: a sound business case; the 'us' feeling, three basic services (TV, voice telephony, internet), high speed communication, local services (such as churches, schools, shops), customer care, and a reliable network. *Ons Net* means, in practice, 'our wellbeing' as this is the real driver, i.e. to bring prosperity to citizens and businesses based on broadband, designed by and for the local community, and sensitive to user feedback. The main lessons are that bottom-up can work, that innovation often involves market disruption as the traditional incumbents are pushed out or forced to change their behaviour, and that citizens want 'quality of life' services, such as home entertainment, home care, home monitoring and lifestyle services.

Malcolm Corbett discussed the future of broadband in the community, particularly in rural areas where over twenty UK projects are currently running, often exploiting wireless technologies. New advanced services need much higher capacities which only very expensive fibre can provide. In the UK, for example, this is estimated at £5 billion for fibre-to-the-street cabinets, rising to £30 billion to the home. Seen from another perspective, however, this is only £1,500 per house, and in the context of the massive economic and social benefits which can accrue, this is a price worth paying. And this can be done if we change our perspective from purely thinking of the top-down £30 billion to also include a bottom-up community approach where a number of viable business cases present themselves, as already demonstrated in the *Ons Net* example in the Netherlands. A top-down government role is still required, however. Although the short term business case is weak, government should still act in terms of support for open access networks, standards, enabling regulation, etc. A four-way partnership is needed, i.e. central government, local government, the private sector and the local community.

Discussion and Conclusions

Successful broadband will require strong partnerships

A main issue is the need for real cost-benefit analyses, as for example recently demonstrated in a North Wales broadband investment of £30 million but where the benefits were estimated at £39 million each year. The market is not always rational, however, and although there are many potential investors no-one wants to be first, especially in the current economic climate. The partnership model is thus clearly needed, as is the right regulatory regime. It is often said that regulation kills investment, so what is the regulatory model that enables and encourages it? Answers could include promising first investors a higher premium than latecomers, unbundling the local loop, making it attractive to invest in FTTH, more intelligent services that stimulate demand, etc.. The details, however, need to be worked out on a country by country basis.

Although the primary cause of uncertainty is cost, the economic case for broadband investment is clear but does need to be better made through cost-benefit analyses. The double challenge now is both to extend broadband access to all regions, and to upgrade from copper to fibre in anticipation of new high-capacity services coming on stream in the near future. Good practice business model examples are important to demonstrate what can be done and these can have a catalytic effect on other regions. For example, the *Ons Net* initiative in the Netherlands is based on bottom-up innovation through community efforts involving public, private and civil sector partnerships, and focused on community prosperity and wellbeing. Many initiatives in the UK have adopted a similar approach, and have pioneered new business models which galvanise local resources and efforts.

At the government level, enabling regulation is also essential and is needed to promote the move from pure access to better quality and higher capacity. The new market framework must allow 'creative destruction' so that new entrants can exert competitive pressure and stimulate private investment, directly funding it when commercial players are not interested or able to meet the regional broadband challenge.

PS16: Investing – Inclusive Public Services

Session Chair: Mechthild Rohen, Head of Unit ICT for Government and Public Services, DG Information Society and Media, European Commission

Speakers:

- *Reinhard Posch, Federal Chief Information Officer, Federal Chancellery, Austria*
- *Marianna Pósfai, Strategic Director, eINclusion and Knowledge Foundation (eINK), Hungary*
- *Graça Simões, Executive Board Member, Knowledge Society Agency (UMIC), Portugal*
- *Paul Waller, Director, Digital Inclusion Team, City of London, United Kingdom*

The Chair, **Mechthild Rohen**, reminded the audience that online public services are now everywhere, but questioned whether they include the very people they most need to reach. How can the more than 30% of Europeans who are 'socially disadvantaged' tangibly benefit in their real lives from more inclusive public services? This group also tends to cost the government much more than other groups, but most are not online or using e-Government. There is an urgent need to address this group with innovative use of ICT to increase social impact.

> *"ICT enables frontline staff to work differently"*
> *Paul Waller*

Paul Waller focused on the challenges arising from the fact that putting government transactions on the web is not important for everyone, but that better social outcomes using ICT can still be achieved. This means we need to think about what actually works for the users and what delivers benefits. We have to think about delivery channels other than ICT, and about partnerships with organisations that actually deliver services to disadvantaged people.

A good example is the Access to Employment (A2E) initiative in London, which aimed at bringing the unemployed back into work. Using a social networking type tool, A2E involves employment advisers physically knocking on the doors of unemployed people in the usual way and signing them up on the system. The people targeted are assisted in creating a profile and mini CV, and then job or training matches are announced through SMS alerts or emails accessed in the community centre. Employers, the employment services, and training organisations are also connected. People can also sign on themselves, or an employment service advisor can refer someone electronically to A2E, so there are increased opportunities for interaction between clients and advisers as well as with other partners.

Lessons are that the roles and responsibilities of staff, especially at the frontline, remain basically the same, but they work differently using ICT. Also the money is not additional but already in service budgets, so short-term specially-funded pilots are not much use, as these tend to die when the money stops. However, in order to continue using the existing money in the new way, better impacts need to be achieved for the same or less money. Thus a sound business case is essential, as is rigorous evaluation of resources and outcomes.

The empowerment of the Gypsy population in Hungary, which only has a digital literacy rate of about 5%, was the theme of the initiative presented by **Marianna Pósfai**. The eGypsy (EGYS) project supports over 1,000 community centres and specially trained counsellors acting as intermediaries who are drawn from the local gypsy community and are thus highly trusted. The concept has been tested in 10 villages in the relatively depressed part of northern Hungary where most inhabitants are poor regardless of which community they come from. The approach is entirely bottom-up, apart from central government money. The local municipality provides the physical centre, the basic services including training which are designed locally, as well as the multiple channels, for use by the intermediary to train and assist his or her community.

The most challenging part of the process is getting agreement between the local municipality and the gypsy community about how to set up and run a project, given that there is a long history of antagonism and disagreement. But the benefits have been significant in improving digital literacy, providing 'anonymous' transactions (e.g. so individuals can apply for jobs without revealing their ethnic background which often triggers discrimination), providing access to other services, and overall increasing cohesion and integration through increased trust and better relationships.

Graça Simões described the Portuguese approach to inclusive public services as *Engagement For All*, which requires strong on-going political commitment. A large number of successful programmes and projects have been implemented, many focusing on digital literacy and competencies, such as the *eSchool* Programme which has now connected all schools and provided many pupils with portable notebook PCs. Schools are seen as information society drivers through which to raise skills across the whole country, especially because pupils take their notebooks home and use them with their family and in their communities.

Other important initiatives include the *Internet Spaces Network* which has established 1,170 access points throughout the country, but which are run locally with local assets, partners and responsibility. The main target groups are the elderly, ethnic minorities and immigrants, as well as remote communities, many of whom are also reached through intermediaries. There is also a network of 33 digital cities and regions, and four community network projects, which provide infrastructure connecting local and central administrations, hospitals, schools, etc. The *Citizen Shop* programme, providing a single-face for the public and using the life-event approach, has also been running since 1999 and now has eleven sites offering the whole range of public services, as well as services for utilities, banks, transport, post offices, etc.

In Austria, a holistic seamless e-Government approach has been adopted. However, **Reinhard Posch** explained that this still leaves some people out, so there is a need to get the excluded into the mainstream and a number of initiatives are already doing this very successfully. For example, the *SenioKom* flagship project matches the elderly needing ICT skills with young people who have them and who can provide training and support. A bonus is that it quickly becomes apparent that this relationship is not simply technical but often develops into genuine friendship.

Other initiatives are aimed at citizens with special needs, for example through the *MyHelp* project providing simple but important services through minimum entry requirements, and which remembers data from previous sessions. For the 30% of Austrians not online, free access is offered through multi-media booths and a citizen eCard system providing eID facilities. Focus is also on the geographically disadvantaged especially through their local authorities. Some of the Austrian lessons are that participation and feedback in service provision are important, and that future challenges include coping with eParticipation and even eVoting. A multi-channel approach also needs to be considered, although retaining all channels can be expensive so clear justification is needed. A focus on the user perspective and user satisfaction is essential.

Discussion and Conclusions

Discussion focused on whether multi-channel could be a digital right, as is the case in the Netherlands, balanced against the clear cost implications. Measuring the impacts of inclusive e-Government is also important, and here it is necessary to separate the 30% of the population who are not online from the 70% who are because the issues involved are very different. Measurement should focus on real social impacts, not on ICT access. For example, how many teenage mothers are in work at age 19, how many people leaving prison do not return within a year, etc. A significant conclusion from many of the examples given is that contact using ICT often enhances human contact, such as through intermediation and by supporting existing channels rather than replacing

them. This is a consequence of approaching the challenge of inclusive e-Government through the eyes of the citizen.

The Chair summarised the discussion in three points. First, the need to improve the delivery of services using ICT for which a strong commitment by both central and local authorities is needed. Second, delivery must involve all relevant stakeholders who must work together, and, third, delivery must be financially sustainable, as well as look at the potential long-term savings.

PS19: Investing - Making the Case

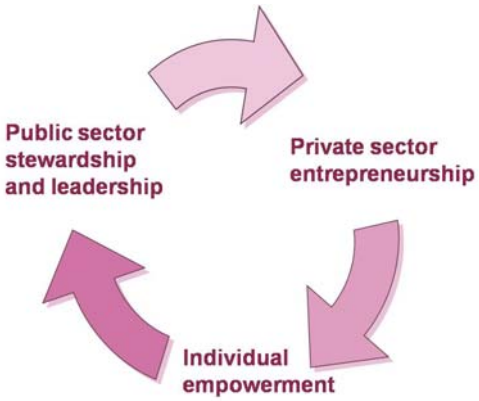
Session Chair: Linda Mauperon, Member of Commissioner Viviane Reding´s Cabinet, European Commission

Speakers:

- *Blanca Alcanda, CEO, Technosite, Spain*
- *Marco Harfmann, Director Consumer Business, Fujitsu Siemens Computers GesmbH, Austria*
- *Jean-François Van Kerckhove, Head of Corporate Strategy, eBay, United States*
- *Caroline Waters, Director People and Policy, BT plc, United Kingdom*

The Session looked at how to make the business case for e-Inclusion and how to measure success in a field that needs to see return on investment sit alongside social justice. This was addressed through interesting and contrasting approaches from four businesses.

Jean-François Van Kerckhove emphasised that e-Inclusion represents a great opportunity for empowerment. This is difficult to value at present, however, but he would give eBay's approach. eBay was founded to give people tools to contribute back to society and its three main e-solutions help enable the promise of e-Inclusion in various ways. eBay itself is a trading platform that offers people from all locations and background to set up their stall online. PayPal is a payments solution which, among other benefits, removes the payment obstacles for those unable to access credit. And Skype offers free and low-cost voice and video services which are used by 350 million users worldwide. All three businesses have been built with affordability and ease of use in mind.



e-Inclusion – Creating Opportunity For All (presentation of Jean-François Van Kerckhove)

But how does e-Inclusion work for eBay as a business? Inclusion and competitiveness are mutually reinforcing. Being seen as a good corporate citizen attracts and motivates talented employees and unites and engages a loyal community of users. It helps create a good reputation, which can account for 4-10% of a company's value. And it attracts new investors.

Mr van Kerckhove welcomed the Commission's i2010 policy framework and related e-Inclusion initiative. He encouraged policy-makers to continue to promote competition and to take full advantage of new technologies to lower barriers for e-adoption. They should also remove regulatory barriers to online trade and services to unlock the full promise of e-Inclusion initiatives.

Blanca Alcanda looked at accessibility through 3G mobile networks as a key opportunity for inclusion. Technosite is a technology company belonging to the ONCE Foundation and was founded according to social enterprise principles. It employs around 120 people, over 70% of whom have

disabilities, and spends 20% of its turnover on R&D. It works to promote e-Accessibility, including compliance with disability legislation, as a key part of the corporate social responsibility agenda.

The benefits of accessibility are well known – but why are they so hard to achieve? There are many reasons including: development tools that do not incorporate checkpoints; standards being difficult to interpret; absence of a Europe-wide authority for accessibility certification; lack of professionals trained in accessibility issues; and a failure to take real needs into account in R&D. The net result is that huge efforts go into each technology without any methodology or protocol for large-scale solutions. R&D is key here and Technosite is leading a new Spanish project called INREDIS, which will develop basic technologies for communication and interaction channels between people with special needs and their technological environment.

Given the ubiquity of mobile phones, 3G technology could be the key to enabling interoperability and accessibility across a wide range of devices. For instance, it could enable a blind user to interact with a cash dispenser, an air-conditioning panel or a washing machine. The device could interact with traffic lights to tell the person when to cross the road, or with a bus stop to know when the right bus is approaching.

> *"If you do the right thing profit will follow."*
> *Caroline Waters*

"How can there not be a business case for inclusion?", asked **Caroline Waters**. "If you do the right thing profit will follow", she maintained. BT is committed to social inclusion and has had a business unit looking at this for the last 25 years. Recent examples here include: free tonecallers for 150k hard of hearing customers; creation of a national network of over 200 Try Before You Buy centres; work with Age Concern to help transform computer drop-in centres to Silver Surfer clubs. Overall, in 2007/08 BT invested £22 million in support of education, charitable and digital inclusion programmes. The company is also a strong promoter of flexible working.

On the market side, BT has championed universal design, which it calls Customer-Centric design. This aims to ensure products are easier to set up and install and therefore better for all customers. Accessible products needn't be poor or dull. The company has sponsored the development of an Inclusive Design Toolkit (www.inclusivedesigntoolkit.com) which has been used to design its best-selling Freestyle 710 range of phones. Poverty can also be a factor and here BT is working with government agencies to shift 3 million low earners onto a low-cost tariff called BT Basic.

Summarising, Ms Waters noted that the business case for inclusion was multi-faceted. It includes opportunities to increase market share; reduced calls to call centres; improved brand and reputation; higher customer satisfaction; fewer product returns; and greater job satisfaction for employees.

Marco Harfmann saw two main hurdles to inclusion: people don't see a need for modern technology, like PCs; and people do see the need but are confused by technical talk. A key target group is those who are less mobile, such as the elderly, people with disabilities and the long-term sick.

In Austria the government has launched a comprehensive e-Government platform providing a gateway to a wide range of public services. Recognising an opportunity to increase take-up by older people, Fujitsu-Siemens designed an access platform in the form of a PC with card reader and relevant software. This was a huge success with over 1000 units sold in the Austrian market. Less successful was an attempt to introduce a 'simple PC' for seniors. Older people did not like the limited functionality and were advised against buying it by family members from whom they sought advice. Many older people have high incomes and are curious; they want the best and place a high

priority on features such as product quality and aftersales support. Hence, Fujitsu-Siemens is now looking at a remote support service to meet their needs.

Summarising, Mr Harfmann noted there was no secret formula for the economics of e-Inclusion. Each group is different and companies and policy-makers have to work hard to understand their needs. Special interest groups can be important here, as is public relations so as to create awareness of the offering.

Discussion

If the case for inclusion is so strong, why have we waited so long for inclusive products and services and why are others not doing the same?, one questioner wanted to know. Part of the problem has been capital allocation. Companies can only do so much and up to now they have not seen inclusion as a priority for investment. Another factor has been that consumers have not demanded these features – or at least have not expressed their will sufficiently. This is changing, however, and inclusive products and services are now moving into the mainstream. Companies should ensure all design is customer-centric through partnerships and collaborations, including the involvement of users themselves. Standards can also be important in driving competition.

Conclusions

Alongside the public sector and citizens, the private sector has a key role to play in making e-Inclusion a reality. Economic, social and political incentives are necessary for this to work, all of which come together in a successful business case. As it moves firmly into the commercial realm, e-Inclusion is taking on a new dimension. Companies should no longer be addressing specific categories of users but developing products and services that meet everybody's needs. This means fostering innovation and creativity, and ensuring that customers and users play a central role in the research and development process. Europe should lead by example and the successes presented provide encouragement that we are moving in the right direction.

Stream 5: Spotlight on e-Inclusion Issues

This Conference stream aimed to provide insights on topical issues within the inclusion agenda, specifically: the link to poverty and employment; the role of regions; perspectives on ICT for cultural diversity and inclusion of migrants; and gender and equality issues.

With the economic downturn, the EU is seeing a big increase in the number of people needing support. ICT offers an important tool for fighting poverty and unemployment. It brings new opportunities to disadvantaged groups and is also an important means for supporting professionals working at the grassroots level. 'Networks of networks' allow practitioners to share best practices, including at European level, and provide a focus for lobbying and inputs to the policy debate. Business also has its part to play in ensuring that digital inclusion is treated as an employment rights issue.

Turning to the regional dimension of digital inclusion, there are clear parallels between excluded territories and excluded people. In both cases those which can benefit most from ICT also tend to be those which have least access to the technology and least market influence. Regional authorities need to be both leaders and enablers of change to exploit the opportunities arising from all social and economic activities across their territories. This requires a concerted investment in broadband, for which broad partnerships will be required. Investment in skills and in new services that improve prosperity and quality of life will also be important. Policy making and networking to demonstrate the benefits of investment should be encouraged and better coordinated, so that weaker regions are not left behind.

Uptake, use and interest in ICT are surprisingly high among immigrants and ethnic minorities. However, migrants also show many of the factors recognised as contributing to the digital divide: age, language, education, socio-economic deprivation, gender, infrastructure, lack of suitable content. These aspects are reinforced by the tendency of migrants to stay in their own expat communities. Successful projects focus on information or activity that is meaningful in the context of individuals' current experience and needs, mix face-to-face engagement with eAccess, and include non-digital issues with the digital ones. A key lesson is to connect and build on existing initiatives that already have a meaningful focus for users and providers, so partnerships become very important. It takes time to build trust.

Gender issues, too, are not receiving a high enough profile. ICT is too important to exclude half the population from its processes and leadership. In theory the field is open to women and there are many projects to attract more women into ICT education and employment. Yet in practice it is hard, even for motivated women, to enter what is still a largely masculine environment. Projects driven by women for women have proved effective. We need to address socialisation and education from an early age. The ICT industry must do more to become attractive employers. Digital exclusion is multidimensional: we need to understand more about where age, disability and ethnicity intersect with gender. In measuring progress, we need to be cautious about how we interpret data, recognising many uncertainties about how variables are defined and how issues are profiled.

PS5: Spotlight - Poverty & Unemployment: Active Inclusion through ICT

Session Chair: Wayne David, Parliamentary Under-Secretary of State for Wales, United Kingdom

Speakers:

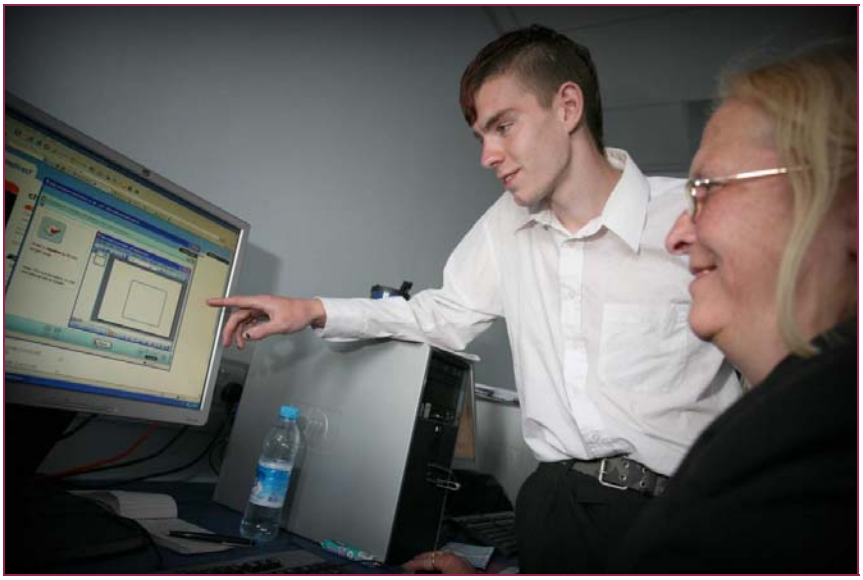
- *Ekaterina Fedotova, Steering Committee Member, Telecentre-Europe, Russian Federation*
- *Michaela Moser, Vice-President, European Anti Poverty Network*
- *Susan Scott-Parker OBE, CEO, Employers' Forum on Disability*

Opening the session, **Wayne David** noted that, due to the economic downturn, the EU is seeing a big increase in the number of people needing support. This will, most likely, continue to rise, putting budgets under severe strain. But we have to see this as an opportunity as well. Beyond teaching people to use ICT, there are opportunities for the public and private sectors to work together. Profound differences remain between young and old, between urban and rural, between qualified and non-qualified, and between ethnic groups. The session would help throw some new light on this very complicated situation and propose new solutions.

Ekaterina Fedotova looked at the Telecentre-Europe Network as an example of how eSkills can improve employability and alleviate poverty. Europe faces a huge eSkills gap, with more than 292 million Europeans still not online today. Telecentres are public places where people can get help to access computers, the internet and other digital technologies. They operate at grassroots level, in facilities such as libraries, education centres and voluntary and community organisations, and have proved particularly effective in reaching underserved and disadvantaged groups.

As well as offering new skills, the centres develop trainees' self-confidence and provide them with opportunities to learn, work, communicate and generally live a better life. Among many examples of success is Lucas, a young British man with hearing impairments (pictured). He had been a low achiever and had started to drink too much. A friend told him about the telecentre and, for the first time, he found a welcoming and accepting atmosphere where he was made to feel comfortable. He started to learn and got on so well that he later came back to the centre as a tutor. Another trainee summed up the impact as "You gave me a new life".

Telecentre-Europe is a new network – formally launched at the Vienna eInclusion Conference - representing 20 regional and national networks across Europe. These total more than 100,000 telecentres in all, with around 250k staff and 100k volunteers. It will offer support to telecentre leaders, managers and partners so as to increase the impact of their work. There are 292 million reasons for it to succeed, Ms Fedotova concluded.



Telecentres gave Lucas a Job and a Purpose (presentation of Ekaterina Fedotova)

Inclusion is a multi-dimensional issue and requires multi-dimensional solutions

Michaela Moser stressed e-Inclusion as a multi-faceted issue. Poverty and social exclusion are multi-dimensional phenomena and so too is digital inequality. Disadvantages can arise from factors such as unequal access and use of digital technologies; disparities in levels of information and knowledge; unequal opportunities in education and participation; and interdependencies between digital inclusion, income, education and employment. Strengthening communication and participation is a necessary precondition for 'real' inclusion but is not sufficient in itself. Rather e-Inclusion measures have to be part of a comprehensive strategy to fight poverty and social exclusion. Such a strategy should include measures such as adequate minimum income, high quality social services, employment policies based on fundamental rights and respect, more and better democracy, and a fairer distribution of wealth. Ms Moser went on to describe two specific examples from Austria. The first was a project for women in rural areas, run by ksoe, the Catholic Social Academy, which offers blended learning that empowers women in several areas of their lives. The second was an e-access project for homeless people in Vienna, run by neunerHAUS, a social NGO. This offers computer courses which allow trainees to pursue personal interests.

Susan Scott-Parker focused on the problems of disabled people in work. These are still considerable: technology which should be liberating people into work is instead getting in the way of the 49 million Europeans who have some form of disability. The EFD's Business Taskforce on Accessible Technology has been set up to look at the way organisations, both private and public, should use technology to retain people, whose disability changes over time, and of course to serve disabled customers. Its targets include: developing new approaches organisations can use to assess their use of technology; upskilling people; improving suppliers; and influencing policy-makers so "they understand how to help the employer to get it right".

"Digital inclusion is emerging as an employment rights issue."
Susan Scott-Parker

The Taskforce is campaigning for improvements in five areas. Firstly, online recruitment is becoming a major barrier to getting a job for disabled applicants and much more needs to be done to enforce the accessibility of recruitment websites. Secondly, IT policies make it difficult for employees who need adaptations to receive the necessary support; this impairs their productivity and means they are not treated fairly. Thirdly, there are shortcomings in training of IT professionals themselves. They need to understand how to make technology work for everyone. Fourthly, there are shortcomings in the

education system, where schools and colleges need to be taught how to use the technology to its full potential in teaching disabled students. Finally, the issue is not confined to websites. As the digital society grows, we have to tackle accessibility issues in relation to areas such as mobile phones, PDAs/Blackberries, and call centres.

The Business Taskforce aims to set the standard here from the employers side. Key issues include promotion and acceptance of universal design approaches; an education and training system that lets in disabled people; and recognising online recruitment as an employment rights issue, which it is not at the moment.

Discussion

Several questions focused on how the various initiatives were promoted. Ms Fedotova relied on several channels, including word of mouth, social welfare/job centres. One of the problems is overcoming people's preconceptions: they think because the service is free it has no value and is not relevant. Ms Moser reiterated that promotion was important but was only part of the answer.

A questioner asked how Europe compared with the United States on accessibility at work, where the Dept. of Labour was particularly active. Ms Scott-Parker replied that the EFD was aware of these developments and similar ones in Canada and was also in touch with leading IT companies such as Oracle. Another question was whether disabled employees are too small a group to justify specific policy action. Overall numbers might be small, Ms Scott-Parker insisted, but it was more a matter of attitude: IT departments have to think in the right way. As yet there have been no test cases in this area but these might not be far away. If companies want to attract the best, recruit the best and keep them they have to respond accordingly.

Conclusions

The session emphasised ICT as a vital channel for collaboration and bringing in hard to reach disadvantaged groups, as well as the importance of supporting the professionals working at the grassroots level. 'Networks of networks', such as Telecentres-Europe and the European Anti-Poverty Network, allow practitioners to share best practices, including at European level, and provide a focus for lobbying and inputs to the policy debate. Business also has its part to play in ensuring that digital inclusion is treated as an employment rights issue, as is being championed by the UK's Employers' Forum on Disability. With approaches such as these digital inclusion can lead to better participation in society and be an important step towards fighting poverty and exclusion.

PS10: Spotlight – Regions at the Sharp End Of Globalisation: Taking the Bull by the Horns

Session Chair: Leighton Andrews AM, Deputy Minister for Regeneration, Welsh Assembly Government, United Kingdom

Speakers:

- *Taavi Aas, Vice Mayor of Tallinn City Government, Estonia (and Eurocities Knowledge Society Forum)*
- *Gareth Hughes, CEO, eris@, Belgium*
- *Hervé Le Guyader, Director General, Aquitaine Europe Communication, France*
- *Patrick Sullivan, Director, CMI International Ireland Ltd, Ireland*

The Chair, **Leighton Andrews**, introduced the session by describing how digital inclusion is related to the economic development of Europe, the role of cities and regions, and the promotion of ICT. Although national and European policies are important, globalisation offers no place to hide to regions and cities as they bear the brunt of the challenges and opportunities, and so need themselves to become active. They can either take the initiative and get ready to exploit the opportunities provided by globalisation or risk being left behind.

Patrick Sullivan described how globalisation was helping us move to 'glocalisation' and the opportunities this presented: linking globally through ICT can provide benefits locally if the right approach is taken.

> *"Glocalisation allows us to use global resources to serve local markets."*
> *Patrick Sullivan*

Regions need to face the challenges by taking an holistic approach which includes all the stakeholders, local, regional, national and international: citizens, businesses, government, communities and the voluntary sector. A prerequisite is affordable broadband to access the advanced services needed for businesses and government. However, individuals are the core as they play a variety of roles: employee, consumer, citizen, etc., each interacting in multitudinous ways which are then transformed by ICT through increasing both the efficiency and effectiveness of networks. Digital networking thus underpins these transformations, both through social and professional networks like FaceBook, LinkedIn, etc., as well as more automatically through digital business ecosystems.

Glocalisation is all about using global resources to serve local markets. Policy interventions at the different levels implemented by the different stakeholders need to be joined up in order to exploit this opportunity. Two recent declarations have already started to stake out this ground: the eris@ Inclusion Declaration in Wales (June 2008) and the EISCO Naples Declaration on the Digital Local Agenda (September 2008).

Using the example of Aquitaine, **Hervé Le Guyader** presented a strategic approach to the globalisation challenge. It is clear that regions are in the driving seat and it is primarily their task to hardwire the Riga Declaration into the mainstream and sow the seeds of e-Inclusion, for example through the Structural Funds, ERDF, etc. Competing challenges - such as the uncertain financial climate, and a rapidly changing and often intimidating amount of information - mean it is even harder to get e-Inclusion on the agenda. We need an appropriate compass to guide us, for example an Information and Decision Support System (IDSS), which can help us identify who, why and what to do, and to assist us in constructing stories and anecdotes which illustrate the way forward. Feeding into this should be solid evidence on the impact of public e-policies, backed up by relevant data. These should be published in a yearly synthesis for politicians and policy-makers, including

sectoral studies, which clearly map and visualise where we are and what we need to do. Such tools were not available a few years ago, but today they do exist and should be exploited.

Taavi Aas focused on how cities are in the frontline of fighting for e-Inclusion, and the specific role being played by the Eurocities Knowledge Society Forum as a platform for sharing knowledge on access to telecommunications and social and digital inclusion. The work of this forum over the next two years will focus on innovation, cohesion, diversity and inclusion, and particularly the role of cities and municipalities, which are home to 80% of Europe's population and deliver a similar proportion of public services. Cities are of prime importance for the European economy and for tackling exclusion. For example, in Tallinn (Estonia) wifi services are now expanding rapidly. Libraries act as hubs for training the elderly and other disadvantaged groups in ICT. Tallinn also boasts an e-Ticket system for the city's transportation network used by 70% of passengers and generating 60% of traffic revenue. Cities know their own target groups and work with them on the ground, and can thus make a real difference to digital inclusion.

Gareth Hughes emphasised that regions are now in the global economy but are also locally anchored, so are able to see in both directions at once, making their role strategically significant. Unfortunately, the Lisbon Strategy has failed to give regions a proper role, so much of their potential has not been exploited adequately. Regions are important precisely because they are sensitive to local needs but are also big enough to be able to take coordinated action across all relevant sectors. However, no single policy will fit all regions, so each has to find its own unique solution. But there are at least five common threads underpinning the transformative use of ICT from which all regions can learn: leadership, openness, learning, vision and narrative, and networking. In each case the role of regional public authorities is critical. Public intervention is necessary when market failure in the provision of infrastructure and services occurs, to exploit economies of scale through demand aggregation and joint procurement, and by sharing good practice.

Discussion and Conclusions

Regional authorities need to lead and enable change

There are clear digital inclusion parallels between, for example, excluded territories and excluded people (such as remote areas or the elderly). Both suffer from the paradox that those which can benefit most from ICT also tend to be those which have least access to the technology, and in each case service delivery chains are local and very complex. This is a clear example where promoting both social justice and economic efficiency go hand-in-hand, and governments have many parts of the solution given that they have legislative power, can regulate for standards, have a cross-sectoral and cross-societal view, and can act in their own right as economic players, However, some dangers could arise, such as in Austria where cities and regions are so competitive that public intervention has the potential to crowd-out the private sector, although this does not seem to be an issue in less developed regions.

Regions can no longer hide behind the protective shield of national governments in the new globalised economic environment. Regional and local players need to have a more prominent role in the Lisbon agenda and future policy for growth and jobs in Europe, especially in the current economic downturn. Investment in social capital and access to ICT infrastructure and services could help speed the recovery period and enable regions to be better able to meet the challenge of global competition. Regional authorities need to be both leaders and enablers of change to exploit the opportunities arising from all social and economic activities across their territories. Even rural and peripheral regions are themselves now in the frontline and must grab the opportunities ICT offers, or suffer the consequences. It is not so much which assets regions have, but more how they are used, so there is everything to play for. This means ensuring that all stakeholders play a role and interact with each other -- not just the private sector and local and regional authorities, but also civil organisations, communities and citizens.

Broadband in the regions is a necessary but not sufficient condition. Also important are skills and incentives with the goal of improving prosperity and quality of life. Bottom-up initiatives, policy making and networking need to be encouraged much more within a broader coordination framework, so that weaker regions are not left behind. Demonstrating the benefits is thus very important.

PS15: Spotlight - Europe of Migration, Europe of Inclusion: ICT for Social Inclusion & Cultural Diversity

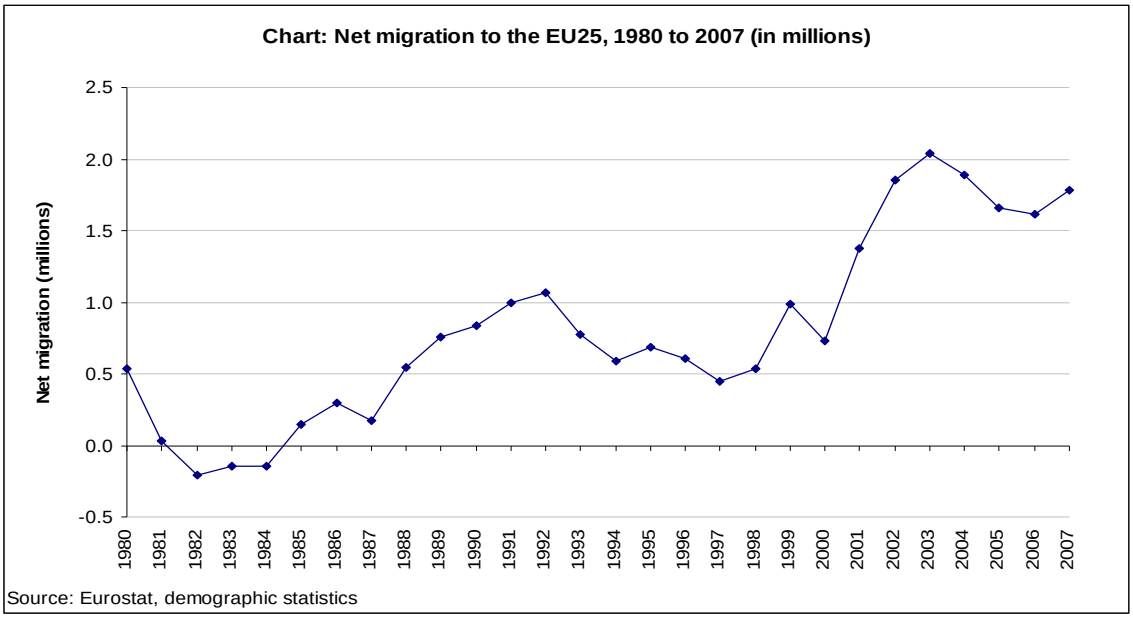
Session Chair: Stefano Kluzer, European Commission, Joint Research Centre - Institute for Prospective Technological Studies, Spain

Speakers:

- *Pedro Aguilera, Connecta Joven, Fundación Esplai, Spain*
- *Andrea A. Cortinois, Instituto de Innovación para el Bienestar Ciudadano - I2BC, International Relations and Networks, Spain*
- *Ed Klute, Mira Media, Netherlands*
- *Stefano Kluzer, European Commission, Joint Research Centre - Institute for Prospective Technological Studies, Spain*
- *Lora Pappas, National Youth Foundation, Greece*

Immigrants and ethnic minorities are often eager users of ICT. This session explored the current and potential benefits of the direct and indirect use of ICT by and for immigrants and ethnic minorities, especially for enabling social inclusion and promoting cultural diversity in the EU. Speakers showcased several projects either taking ICT to users, or using ICT to improve services for immigrants.

Stefano Kluzer reported results from recent IPTS studies on the digital integration of immigrants and ethnic minorities. Up to 2m migrants come to Europe annually. There are 27m foreigners in Europe (5.6% of the total population) and a further 50m European nationals born outside Europe. Migrants are enthusiastic users of ICT – sometimes more so than the average for the local population, being younger, highly mobile, with a dispersed social network, maintaining links with their home country and knowing they need ICT skills both for their jobs and for their children's education. Even so, many of the factors that drive the digital divide are also found: age, language, education, socio-economic class, gender, physical infrastructure, and paucity of content or services relevant to their needs and language skills. Immigrants' ignorance of available resources is compounded by their tendency to stay in their own expatriate communities.



The Importance of Immigration into Europe (presentation of Stefano Kluzer)

The study found 120 initiatives addressing different dimensions of these problems, either helping migrants to use ICT, or using ICT to help minorities. But initiatives are fragmented, often local and with only a limited role played by the commercial sector. The study concluded that 'access measures' (such as public internet access points, multi-language information and services) are more successful if they relate closely to the purposeful, current and everyday needs of the migrant group (such as jobs or education); if they offer a 'blended solution' involving face-to-face engagement as well as e-Access. The most successful services were more like community centres, bridging the social and the technological. Public sector organisations also need training to better scope and run ICT-based services.

Ed Klute focused on local community development and ethnic entrepreneurship. Research shows that confidence with ICT is high in people under 25 and declines significantly in populations over 45.

Two projects were described that used young people to foster eInclusion in older migrants. In the first project, young immigrants were taught to use digital cameras to capture and showcase their community and their culture. The results were displayed on public screens (wikimedia ateliers). In the second project, programmes were run in vocational centers teaching media skills (such as journalism) combined with entrepreneurship. Training was delivered by members of the minority community who had themselves been recruited and trained as part of the project.

The projects allowed the participants to express and celebrate their cultural identity, gain skills and pass on those skills, creating positive role models and encouraging inter-generational understanding and reaching (e.g.) grandparents who might not come into the visible community for formal training. One project also served directly entrepreneurial goals (e.g. a website helped a father market his shop or small business).

Both projects aimed to encourage synergies between public authorities, civil society, media and industry. The results strengthened the ICT infrastructure, increased available skills, attracted new economic activities and helped upgrade the local community. A key lesson was, 'Know what's there already and build on that'.

Pedro Aguilera explained that 30% of young immigrants to Spain do not finish their education, which leads to a succession of negative consequences such as failure to find a job or achieve even low-level professional qualifications. Lack of ICT skill lowers educational achievement and immigrants with low education suffer more digital exclusion. Exclusion from society often leads to negative behaviour. The Conecta Youth project trained16-18 yr old second generation immigrants to teach basic ICT skills to adults who had never used a computer, especially those who were unemployed, newly arrived, disabled or isolated by gender or old age. The young people gained social skills, presentation skills and a greater awareness of their cultural roots: 'Teaching and learning at the same time is incredible'. The whole project raised awareness of disability and fostered understanding between cultures and generations, but the trust took time to build.

Lora Pappas described ESTIA, an innovative interactive network for the benefit of the asylum seekers and refugees. This project had two aims: 1) to secure more effective collaboration between the different agencies that deal with refugees' and migrants' legal, social, medical or educational needs; and 2) to assist migrants in uncovering and accessing relevant services. A single data registration service registers asylum seekers and logs their referral to the various agencies involved. Each agency's intervention is also logged, resulting in better co-ordination between services and avoiding costly (and potentially dangerous) overlaps, such as a person who was prescribed the same medication from three different practitioners. Project benefits have attracted additional service providers (beyond the original partnership) to join in, promulgating best practice around the network and raising the overall quality of service provision. Asylum seekers receive a clearer and simpler treatment of their claim; individual agencies save time and effort; and planners have valid

data to inform future provision. However, building effective partnerships is very important and not always straightforward given the diversity of stakeholders involved. It is also challenging to strike the right balance between shared data access for improved service delivery with data privacy for the individuals concerned.

> *"Migrants can benefit from information relevant to their current situation."*
> *Andrea Cortinois*

The immigrant population in Canada is significant, explained **Andrea Cortinois**, especially in cities such as Toronto, and few newly-arrived immigrants are well informed about the country or its public services. Many are painfully disempowered when they arrive because they don't speak the language and some have surprisingly low expectations about the availability of public services to help them. This project assembles and publishes relevant information and supplies a personal coach/navigator to help newly-arrived immigrants to navigate the information services. Some of the guides are professionals but many are volunteers who have themselves been through the experience of being a newly-arrived immigrant and have benefitted from training offered by the project in how to coach and mentor other people now facing the same situation.

A major insight from the project is the value of offering (or pointing at) information that is meaningful in an immigrant's current experience and situation (which changes over time). 'Wikitips' to pass on experiential learning, as well as promoting social engagement for participants. This project team sought out existing agencies already active in the field and didn't try to build a constituency from the ground upwards. The gain accrued not only to immigrant users of the service but also with the public and/or NGO agencies involved who gained knowledge, data and insights that enabled them to improve their services to immigrants and to formulate stronger funding bids.

Discussion and Conclusions

Uptake, use and interest in ICT are surprisingly high among immigrants and ethnic minorities. ICT is a known driver of inclusion, employability and citizenship. However, many of the recognised drivers of the digital divide are also found among migrants: age, language, education, socio-economic deprivation, gender, infrastructure, lack of suitable content, and are reinforced by the tendency of migrants to stay in their own expat communities. Successful projects focus on information or activity that is meaningful in the context of individuals' current experience and needs, mix face-to-face engagement with eAccess, and include non-digital issues with the digital ones. A key lesson was to connect and build on existing initiatives that already have a meaningful focus for users and providers, so partnerships become very important. It takes time to build trust.

PS20: Spotlight - Gender and Equality

Session Chair: Femke Snelting, Constant, Belgium

Speakers:

- *Doris Allhutter, Institute of Technology Assessment, Austrian Academy of Sciences, Austria*
- *Donna Metzlar, Genderchangers*
- *Daniela Schallert, abz*austria, Austria*

The session surveyed the position of women as users, workers, developers and managers in the ICT world. Several recent research studies show that more women are using ICT and/or working in the ICT sector – though still at consistently lower levels than men – but that they are almost invisible among the leaders and managers who set and drive forward the agenda in the ICT domain. The industry culture has a predominately male perspective and that informs the design of products, tools and services and presents a hidden barrier to genuine inclusion of women, especially in employment. Against this background a range of initiatives were described where women are working with and for each other to build awareness, develop skills, mould positive role models, and understand and dismantle the barriers to greater and more equal participation in the information society.

Introducing the session, **Femke Snelting** noted that women's activity in information technology is nearly as high as men's. However, women are under-represented in specifying, authoring, producing or managing policies, products, tools and services. Many examples were given, e.g. W3C has only seven women (mainly administrators) out of a total of 67 on the core team; and only 1.5% of people developing open source software are female. The semiotics and some underlying assumptions prevalent in the design of research into gender and ICT are not yet well articulated, such as how 'involvement in ICT' is defined or whether eInclusion is more than physical, linguistic and intellectual access. Gender issues rarely figure and there is no gender policy in place.

Ambivalent Avatars in SecondLife (presentation of Femke Snelting)

Daniela Schallert described the situation from a labour market perspective. For an organisation aiming to get women into men's (i.e. better paid) work, raising awareness for women of the significance of the IT sector is important. Although many women use a computer for word-processing, very few women obtain a degree in computer science, are involved in programming or work in hi-tech ICT. A first step is 'access', aiming to get women into entry-level jobs and then building a culture of life-long learning. Workshops in town halls or libraries (removing boundaries that women might not cross) create a new feel for learning by experimenting and having fun by using ICT. Thereafter women are coached to research different kinds of ICT jobs, their skills requirements and working conditions so they can build realistic long-term plans. The scheme runs training in network administration and database programming and arranges placements in ICT companies. Around 60% of participants go into ICT jobs, of which 70% eventually attain a higher level job in the sector.

Donna Metzlar used herself as a case study of what it was like to go from nursing (largely female) into IT (predominantly male). She had founded 'Genderchangers' in Amsterdam, a pun on the fact that computer connectors have masculine pins and female ports. Women meet regularly to experiment, share knowledge and have fun – "like male geeks and hackers do" - in an open source, free software, and experimental culture. They use computers donated or found on the street, running a café to fund the rest. They might take apart a computer together or one member would learn something and teach the others. International members now organise regular 'eclectic tech carnivals' around the world that focus on technology but looking also at issues such as working conditions in producer companies or sustainability and recyclability of components. They have fun too! They now have their own server array (Systerserver – a room of their own) hosted in Phoenix where their own people work as web administrators combining a feminist environment and a learning environment. They hold a 'geek dinner' in Amsterdam, a high quality, business-oriented event for which, ironically sponsorship is easier to find. Fees to attend are quite high – but there are free places for high school girls.

To effect change women must take action themselves – which requires good leaders

Change will only come about by action from women themselves, which requires persistence. "Don't expect to be a mass movement and change everything straight away". The events have a trickle effect. Passion has to be sustainable, building real community through get-togethers held reliably on a regular basis (e.g. every first Monday in the month). To motivate people is really to politicise them and that needs good leaders with the energy to 'pull the cart' all the time and over the long haul.

Doris Allhutter focused on how to avoid exclusion and gender stereotypes. The research perspective on eInclusion focuses on 'digital literacy', yet a recent study has shown that social isolation and economic disadvantage are the two dimensions most relevant for digital disengagement. Those who are *most* socially disadvantaged are *least* likely to use the technologies designed to help them overcome their disadvantage. Gender is rarely mentioned explicitly in policy documents and notwithstanding initiatives to motivate women for ICT education and employment, the politically-active, digitally-literate and economically-beneficial citizen is often constructed as male, white, middle-aged and middle class. Policies for disability and for ageing tend not to recognise the overlapping gender issues. There are plural femininities and masculinities in practice, yet gender is usually tackled as a simple binary (male or female). Ideas of gender, which are co-constructed, unknowingly get inscribed into technological artefacts and into working and educational cultures, reinforcing the construction of gender relations.

In other words, digital exclusion is multi-dimensional and inclusion strategies (including design-for-all) should offer more heterogeneous measures. Experts active at all levels in the field (designers, developers, process managers, policy makers, evaluation experts) need to be better informed and

more aware of gender bias, gender barriers, and gender opportunities. We can't just leave it to the market because there is an inherent conservatism in market mechanisms.

Discussion and Conclusions

ICT is too important to exclude half the population from its processes and leadership. Gender issues are not receiving a high enough profile. In theory the field is open to women and there are many projects to attract more women into ICT education and employment. Yet in practice it is hard, even for motivated women, to enter what is still a largely masculine environment. Projects driven by women for women have proved effective. We need to address socialisation and education from an early age. The ICT industry should do more to become attractive employers. Digital exclusion is multidimensional: we need to understand more about where age, disability and ethnicity intersect with gender. In measuring progress, we need to be cautious about how we interpret data, recognising many uncertainties about how variables are defined and how issues are profiled.

Stream 6: Inclusion 2020

What will inclusion look like in ten years time? This Conference stream aimed to find out, offering insights on future developments from a number of perspectives.

The future is hard to predict and, in all probability, tomorrow's world will be nothing like we imagine it. Nevertheless, it seems clear that ICT will become more and more embedded in our everyday lives; universally available and accessible, in the way that electricity is today. Huge improvements in accessibility are being made all the time, including for specific user groups. By making these available by default it will be possible to provide more efficient and more cost-effective access for everyone, with benefits across all areas of society and the economy.

Robotics will also be a key part of the future. Major steps forward in robotics are likely which will enable robots to assist and support us in many areas of our lives. As in other areas, very close involvement of users will be essential for such robotics technologies to be accepted.

Ethical issues around the use of ICT have received little attention up to now. Yet successful economic and scientific innovation will only be possible if it takes into account real societal needs. The balance between profitable ICT and inclusive ICT is a difficult one. But a balance must be struck. Incorporating e-Inclusion issues is a logical consequence of the adoption of the European Charter of Fundamental Rights. European research programmes should also ensure projects comply with fundamental ethical principles. The best way to integrate ethical criteria into ICT products is to include these criteria in the product development from the very beginning.

Inclusion is truly a global issue. For example, around 80% of people with hearing impairments live in developing countries. In India, the number of older people will double over the next 10 years, from 80 million to 160 million. And in Africa, where 40% of the population is under 14, great inequality, low education, low broadband penetration and a lack of major corporate investment persist. While there are clear differences in emphasis between different regions of the world, there are also many common issues. The internet also offers a chance to promote cultural understanding and linguistic diversity – provided we are able to challenge the current predominance of English. The sharing of experiences for mutual learning and inspiration will be important in being able to go forward together.

PS11: Inclusion 2020 - Future Perspectives

Session Chair: David Banes, AbilityNet, United Kingdom

Speakers:

- *Birgit Graf, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Germany*
- *Gregg Vanderheiden, Trace R&D Center, University of Wisconsin-Madison, United States*
- *Wolfgang L. Zagler, Integrated Study Institute, Vienna University of Technology, Austria*

Looking ahead to 2020 one thing is clear: technologies will not look like they do today. Chair **David Banes** pointed out that we have only to go back 10 years and see the predictions that were made then, to understand that today's best guesses might only be true by exception. In 1943, for instance, Thomas Watson, chairman of IBM, famously claimed: "*I think there is a world market for maybe five computers*". And even in 1977 Ken Olson, President of Digital Equipment Corp, said: "*There is no need for any individual to have a computer in their home*." Even in 2005 Steve Chen, a co-founder of YouTube, thought: "*There's just not that many videos I want to watch*." At the time YouTube featured about 50 videos. Less than two years later, in November 2006, Google acquired YouTube for US$1.65 billion! This session focused on future perspectives on inclusion and what they mean for what we should do today.

> *"Today's best guesses might only be true by exception"*
> *David Banes*

Gregg Vanderheiden emphasised that even though there is no way we can predict the future, some things are already clear. For instance, tomorrow's web content will be interactive: pages won't be passive, silent, or simple. They will provide access to a host of functionalities. It will also be much more suited to all of our senses and abilities, including sight, hearing, speech and gesture – and all in real time. Content will not be just "on the web" but truly around us. It will be so integrated in our lives that we will use it all the time, without conscious choice. Eventually, IT will be like electricity today. Everywhere you go you will find access to IT. We will no longer need to bring computers with us: they will be available in every room, every environment, all of the time. Centuries ago people were carrying around candles wherever they went: now we just expect to find a light source in every room.

Just as we are building physical access to buildings, we now have to build this access into the internet. Just enhancing "their computer" will not work anymore. The key is to figure out how to make those accessibility tools available everywhere, all the time. Technologies are now available for many disabilities and for people with problems with literacy. Research is starting to address tougher problems of people with cognitive, language, and learning disabilities, and the multiple disabilities faced by many seniors. By making these available by default it becomes possible to provide more efficient and more cost-effective access, to allow productive participation and greater independence. It also becomes easier for both companies and governments to ensure that new web technologies and services are accessible to those with few resources.

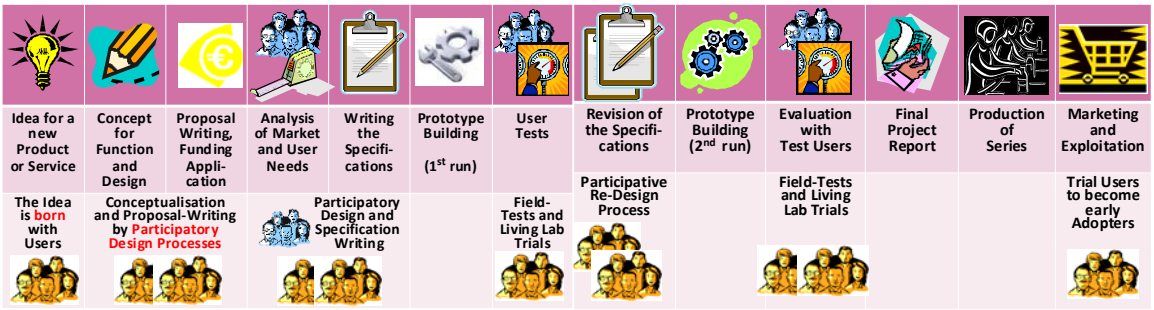
The world keeps changing, and by actively continuing to build access to the internet we will make this available to all. There is an international organisation of initiatives supporting this. The idea is to focus on building access features directly into the internet, including free basic access features (design for all), virtual commercial assistive technology (AT), access features and AT that can be invoked by anyone, anywhere on any computer, installable software and access without requiring any installation, off-line access by those who cannot afford to get or stay on-line and, last but not least, cell phone based eBook/web-page readers.

Key features for this effort include: adopting an open-source development model, which allows researchers, consumers, and industry to participate; royalty-free, non-assertive intellectual property, allowing use by everyone; and a localisation-friendly and culturally open and agnostic character (to open up access in countries and languages worldwide). Code should be available to public and private entities to facilitate innovation and help assistive technology developers catch up and keep up, and new AT developers to come into the field. Local recognition/support is important to spread awareness and credit - to highlight and facilitate/support individual efforts worldwide in this area.

Birgit Graf agreed that in the future the internet will be all around us, as will information. Assistance robots will be there to help us, too. Her vision of robotic home assistance is one of robots carrying out all chores, automatically, at low costs (mass production possible), reliable, maintenance free, and learning. As Bill Gates said in a key article in *Scientific American* in December 2006: "*I can envision a future in which robotic devices will become a nearly ubiquitous part of our day-to-day lives*". Today there are already more than 5 million robots active at home (mainly vacuum cleaners, lawn mowers, etc).

Key technologies necessary to further advance home robotics include: navigation (including the ability to build a map of the unknown environment) that can be used for path planning; object detection (allowing to get a 3D view of an object); person detection (for instance detection of head, arm, leg); and collision-free manipulation. Future challenges include: intuitive interaction; situational awareness in complex environments; safe manipulation; adaption and learning; and dependable execution of complex tasks in complex environments.

Wolfgang Zagler focused on the future of user involvement in R&D. EU programmes already recognised the need to do so widely, and for some years, and reflect this in their programme descriptions which include hard requirement of user involvement in development. Yet today there seem still to be a lot of developers that feel they are able to do their development independent from users. In particular this is true for developments for disabled people by those that are not disabled.



User-centred Time Line in an R&D Project (Presentation of Wolfgang Zagler)

However, the developer will never be able to fully understand how a disability affected the user. And it should be noted that ageing, for instance, is universal, but not uniform. The older we grow, the more diverse we become. In the past, technology was driven by design and development where users had to conform. The present approach is user driven. The call is to not merely respect users and their experiences, but to try to learn from them. Let your user dream with you.

Technology development must become more user-centred

Discussion

While accepting the blame that products are often full of features that are hardly used, thus enhancing the complexity, it was remarked that customers ask for many features. If two phones hang next to each other in a shop, for the same price, and one has 6 features and the other one has 12 features, most customers would go home with the more

sophisticated phone. Over 50% of the products returned have nothing wrong: people are just not able to use them properly when they get home. Now companies are beginning to make sure customers keep it, and are happy with it, and change their orientation on delivering a product or service.

Conclusions

While the future is unpredictable, one thing that will need to change is the way the user is involved in the development and use of technology. Technologies and tools are often hard to use, today, and users' specific needs are often not taken into account, even if this might make a product much more useable for everyone.

In 10 years time ICT might be available on a par with electricity, but already there are huge improvements that can be made to improve accessibility of the Internet, including for specific user groups. And in terms of assisting users, robots will come in where just having access to information is no longer enough.

A final thought: the Stone Age did not come to an end because of lack of stones. The end of the Technology Age may well be because we move on in usability: technology will still be there, but no longer the focus of society.

PS13: Inclusion 2020 - The Ethics of e-Inclusion

Session Chair: Stefano Rodotá, Professor for Civil Law at the University La Sapienza, Italy

Speakers:

- *Emilio Mordini, Director, Centre for Science, Society and Citizenship, Italy*
- *Margit Sutrop, Director, University of Tartu, Estonia*
- *François-René Germain, Accessibility Director, France Telecom, France*
- *Maurizio Salvi, Head of the European Group on Ethics (EGE) Secretariat, Member of the Bureau of European Policy Advisors (BEPA), European Commission*
- *Kevin Carey, Director, humanITy and Vice Chair, Royal National Institute of Blind People (RNIB), United Kingdom*

Delivering an inclusive information society will force us to address some tricky ethical issues. Can you opt out of the information society? Do our existing privacy laws help or hinder progress? This Session tackled the ethical issues of the development and use of ICT and e-Inclusion.

> *"Privacy and inclusion are two rights that either stand or fall together"*
> *Emilio Mordini*

Emilio Mordini saw a very difficult relation between privacy and e-Inclusion, which reflects the conflict between autonomy and dependency. A feature of the human being is that we are dependent but we want to be autonomous as well (and this is surely true for older people). If one is not included one cannot develop autonomy, but at the same time an e-Inclusion policy might risk construction of an e-surveillance society: the dream of a new inclusive telematic village for the elderly may turn into a nightmare.

So, in an e-included society, the right to be left alone should be thought as: partial (no one wants to be excluded, one only wants to control his own personal sphere and to prevent intrusions) and revocable (one wants to be left alone only if he can decide in any moment to return into his community). In the end, this means that privacy and inclusion are two rights that either stand together or fall together.

Margit Sutrop reported on the main outcomes of the High-Level Workshop on Ethics and e-Inclusion held in Bled, Slovenia. This important workshop offered an ideal opportunity to deal with e-Inclusion and ethics, aspects which otherwise receive little attention. It brought together major actors in this field and was able to place ethical issues into a broader context. Two important challenges were identified: 1) How to find a proper balance between the benefits and the risks related to ICT; and 2) How to find a balance between different ethical principles or values (privacy versus inclusion, individual versus collective, informed consent).

The Bled workshop explored the dimensions of ethics and e-Inclusion in different contexts: marginalised young people and cultural minorities, elderly people, persons with disabilities and online government services. Overall, it came to four important general conclusions:

1. The issues to be addressed are often not only those specific to that particular group but also need to include those of other groups.
2. Governments and industry must work together to ensure that solutions for e-Inclusion are not simply profit-driven and that the socially excluded derive real acceptable benefit.
3. It is important to ensure that the end users, particularly those identified potentially at risk of exclusion, have a voice which is listened to effectively.
4. A case study library should be developed to share examples of good practice.

Francois-René Germain explained France Telecom's journey on accessibility. Already 10% of the European population is disabled; within a few decades more then 50% of the population will be older then 65. If we want to do business, we have to match business with accessibility. In fact: striving for accessibility is where corporate social responsibility (ethics) and marketing and commercial performance met each other. He explains how a big company like France Telecom (Orange) did that.

The revolution to more accessibility was induced by four major changes: moving from a techno-push culture to a consumer-centric approach; moving from a vertical way of operating (service by service and product by product) to a transversal management system; taking benefit of forward looking technologies; and making accessibility an element in every business process in the company.

France Telecom commits itself to three important principles: (1) setting up a policy of 'Design For All', which means integrating accessibility into the creation process from the very beginning; (2) making the distribution channels accessible; and (3) accessibility strategy - integrating accessibility into the Group's processes (from R&D to delivery) by screening all the current and new offers. Furthermore, France Telecom (Orange) installed an accessibility office where a dedicated team is working around every possible accessibility issue.

Maurizio Salvi gave the perspective of the EGE. The European Charter of Fundamental Rights states a set of shared values, such as: respect for human dignity, a ban on human reproductive cloning, respect for people's autonomy, non-commercialisation of biological components derived from the human body, interdiction of eugenic practices, protection of people's privacy, freedom of science, etc. The Reform Treaty of Lisbon refers to this set of European values. Also in the science and innovation policy, ethical reviews are standard for approval procedures.

Not only the individual has the right to protect his or her own personal data but society should take care that such systems, where they are permitted, should not become systems of untenable restriction or even negation of basic rights. This should be particularly considered in case such systems become part of health systems in which data is permanently or occasionally transmitted to other parties. The use of ICT implants in order to have a remote control over the will of people should be strictly prohibited. The individual has a right to determine what personal data is to be processed, by whom and for what purposes. In particular the right of the individual to decide who should have access to such data and for what purpose is crucial.

To embed this statement in the daily practice we need more (ELSA) research and clarification on issues like informed consent, digital divide, human enhancement, research on elderly people and capacity-building in research ethics. This work should lead to a publication of a reference document.

Finally, **Kevin Carey** presented a disability perspective on ethics and e-Inclusion. "In recent years, there has been a trend to extend people's theoretical rights and to decrease the budgets for people to enjoy them", he stated. "Accessibility is paid for by tax payers".

Accessibility is not only a moral right but also a fiscal right. Involving disabled people in a dialogue on what they need is useless, and even insulting, if there is no intention to listen. In the absence of generic rights, we should at least define specific rights. Governmental organisations (EU, national or regional) must be careful with imposing accessibility if they are not capable themselves to be accessible for their citizens. And, finally, maybe people should not expect so much from shareholder value, some modesty here might help companies to do more for accessibility and e-Inclusion.

Discussion

The discussion emphasised the following points:

- A code is needed for how to deal with people who are not able to give consent in how ICT's are brought into their lives.
- Government, as well as business, don't talk enough with users. Industry has to work together with the NGOs to find solutions for exclusion and the digital divide.
- We need a code of conduct on how retail people need to deal with disabled people when selling them ICTs.
- We need to take better account of Europe's diversity, which requires more research and analysis. If we want to be just and act justly, we need to be able to treat people differently.

Conclusions

The balance between a society that wants to make maximum profit from ICTs while at the same time be as inclusive as possible is difficult. Until now, not enough attention has been paid to ethical issues although there are three important reasons to consider these issues in developing ICTs. Firstly, successful economic and scientific innovation will only be possible if it takes into account real societal needs. Secondly, incorporating e-Inclusion issues is a logical consequence of the adaption of the European Charter of Fundamental Rights. Thirdly, to participate in European research programmes, research projects should comply with fundamental ethical principles. The best way to integrate accessibility criteria into ICT products is to include these criteria in the product development from the very beginning.

In conclusion, all speakers agreed that we need more research on the needs of specific groups. This research should be of a participatory nature, i.e. including the viewpoints and experiences of the different target groups. Inclusiveness will only work if we respect Europe's diversity.

PS17: Inclusion 2020 - Sharing International Experiences

Session Chair: Jim Sandhu, Inclusive Design Research Associates, United Kingdom

Speakers:

- *Cezar Alvarez, Digital Inclusion Coordinator of the Federal Gov. and Chief of The Agenda, Cabinet of the President, Brazil*
- *Andrew de Carpentier, General Director, Holy Land Institute for the Deaf, Jordan, and Worldwide Hearing Care, part of WHO*
- *Daan du Toit, representative to the European Commission (replacement of Mr Derek Hanekam, Deputy Minister of Science and Technology, South Africa)*
- *Jayalakshmi Parameswaran Chittoor, Centre for Science, Development and Media Studies, i4d Programme, India*

There are two ends towards support of people with disabilities. Where on the one hand amazing means are available to those who can afford it, for others there is nothing. Today we see that poor and marginalised people are even further marginalised, and public policy is needed to address this. Inclusion should be about including the excluded, and it is truly a global issue, even if exclusion may mean something different in Europe than elsewhere in the world.

According to the Chair, **Jim Sandhu**, people get 'excluded from inclusion' for the following reasons: economy (ICT is too expensive for most people); politics (some states deny their citizens access to ICT); bad design (many ICT products are too difficult to install, use and have poor interoperability); and literacy. The way forward would be through: legislation (national, international, global); regulatory requirements (in which governments stipulate rules for contracts); procurement specifications; design guidelines; and standards (for interoperability, safety, and usability). After that he introduced the speakers, inviting them to contribute to the issue from their specific national experience.

Disability Options Differ For Rich And Poor (presentation of Jim Sandhu)

Daan du Toit explained that eInclusion is a major item in South Africa, and he expressed his gratitude for the opportunity to share experiences, thus enabling mutual learning.

The Riga Ministerial Declaration brought up many items of international relevance, which are also recognised by South Africa. Yet Africa has specific challenges: not so much an ageing population (under 14s comprise almost 40% of the population) but great inequality, low

> *"The Internet offers the best chance yet for developing countries to take their rightful place in the global economy... and so our mission must be to ensure access as widely as possible. If we do not, the gulf between the haves and the have-nots will be the gulf between the technology-rich and the technology-poor*".
>
> Daan du Toit, quoting former UN Secretary-General, Kofi Annan

education, low broadband penetration and reluctance of large companies to invest. On the bright side: the African continent has the highest ratio of mobile-to-total telephone subscribers, and the annual growth rate of mobile use is by far the highest worldwide. M-government and m-services are developing.

The New Partnership for Africa's Development (NEPAD) established an ICT arm, NEPAD e-Africa Commission, to "accelerate the development of African inter-country, intra-country and global connectivity, and promote conditions for Africa to be an equal and active participant in the Global Information Society".

There are a number of rural connectivity initiatives, putting in place local mobile networks and allowing low-cost telephony solutions that make communications affordable. Mr. du Toit presented several examples in the areas of health and education. The South African government has started with the roll out of "digital doorways" terminals that are put out to the population to improve digital literacy and competence, when necessary solar powered, thus becoming even more widely available than electricity. There is also explicit attention on human language technology needs, addressing language and cultural diversity, recognising the need to deal with, for instance, the 11 official languages in SA (compared to 18 in India and 23 in the European Union). Specific programmes are on their way to include in the architecture means for communication with those that are deaf or blind. South Africa participates in the 7th FP and such collaboration on global level is crucial.

Jayalakshmi Parameswaran Chittoor also emphasised that development is perceived differently in different countries and that priorities vary. Inclusion should be about including the excluded, and is truly a global issue. When states engage in an initiative they have the mandate to include all citizens, but we see today that the poor and marginalised people are even further marginalised, as with the elderly, women and indigenous groups, and people with long term illness and/or disabilities (mentally and physically challenged).

Inclusion is a global challenge with many common issues

In India there is great inequality. Nearly 40% of India's populations live on less than a dollar a day; 35% is below the age of 15. At the same time, within 10 years the number of older people is expected to double from some 80 million today towards 160 million. ICT can enable inclusion by facilitating useful tools and services. Access can be addressed by giving communities control about access and tools through the implementation of tele-centres and community radio. India has developed eGovernance delivery points to one in six villages, today. This roll-out of 113,000 centres has been done in close collaboration with the private sector, including local entrepreneurs.

All the technology today is here to help us better communicate, agreed **Andrew de Carpentier**. Today there is a great number of verbal languages that are the focus of the new technologies currently developing. However, the potential of alternative modes for communication through vision, touch and other modes is largely neglected. Whereas about 10% of the global population are either hard-hearing (6.6%), hearing impaired (3.3%) or deaf-blind (0.1%). These people could bring unique contributions to society.

In the Western world hearing impairments occur as people getting older, whereas in the developing world it is mostly about children. 80% of people with hearing impairments live in developing countries. Costs of hearing impairments are huge, although no comparable data have been developed yet. The true size of the problem is not known. We need respectively: hearing aids, visi phone, cyber gloves. Is the market too small to further develop the technology? How about the unique contribution that could be made to the community?

Cezar Alvarez shared several Brazilian initiatives, addressing specific circumstances including low levels of literacy and poor broadband availability. They were about connecting citizens by stimulating the acquisition of computers by all. Brazil is the fifth biggest market in the world for new computer sales now. Other initiatives are being put in place to bring internet access to remote regions, and connect all schools to broadband. Telecenters are put in place to support wider access to people. Currently around 10,000 are existing, and it is intended to double this number over the coming two years. Mobile access is promoted by requiring all bidders for 3G licences to include provision of at least 2G service to every municipality.

There is a move towards one laptop per student, and a start has been made to provide low-cost good-quality laptops with learning tools on them. Teachers are also eager to learn, and according to Mr Alvarez it is very emotional to see this. The Brazilian government intends to hand over 150,000 laptops in batches of 500 to 300 schools during the coming year, assuming they will be able to buy those at a price of less than $300 per laptop.

Conclusions

The national initiatives truly addressed those that need to be included and exchange of experiences is most useful. Whereas there are clear differences in emphasis between different regions of the world, there are also many similarities, like the need to deal with common issues (elderly, people with specific disabilities, and the need to cover different languages). In conclusion, it was seen as very important to exchange those experiences for mutual learning and inspiration. As was said in the UN Global e-Government Readiness report 2005: *"… there are huge disparities in the access and use of information technologies, … and these disparities are not likely to be removed in the near future unless a concerted action is taken at the national, regional and the international levels*."

PL3: Visions of an Inclusive Information Society

Moderator: Wolfgang Blau

Speakers:

- *Sir Tim Berners-Lee (Director, World Wide Web Consortium, USA)*
- *Abdul Waheed Khan, Assistant Director-General for Communication and Information, UNESCO*
- *Adama Samassékou, African Academy of Languages (ACALAN) and MAAYA Network, Mali*
- *Robert Sinclair, Microsoft, Accessibility Business Unit, United States*
- *Veli Sundbäck, Nokia Corporation, Corporate Relations and Responsibility, Finland*

The session presented a series of thought pieces from leading players on what the future holds for us if we achieve an inclusive information society.

In a video address, **Sir Tim Berners-Lee** said that the web is now universal, where we can find the broadest range of material in any language from any culture.

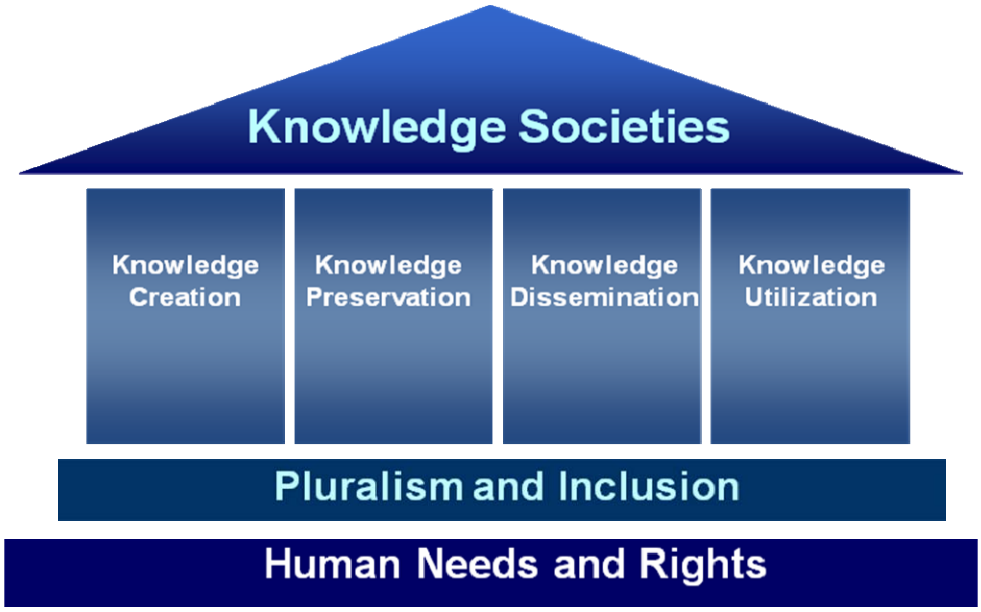
Accessibility is central. You can go to the web from anywhere so accessibility rules must also be universal and standard. W3C has run the Web Accessibility Initiative for many years and can point to positive progress and version 2 of the Web Accessibility Guidelines will be published later this year. The next step is Authoring Tool Accessibility Guidelines, which will make it easier for lay people to select and use tools to author material for the web with accessibility built in. Material that is accessible to users is also accessible to search engines, and is likely to be persistent for historians and easier for posterity to understand.

> *"The web has been a vehicle to release a huge amount of creativity"*
> *Sir Tim Berners-Lee*

The Web Foundation, a new research institute, will try to open up access to the 80% of people who don't yet use the web. The web is still in its infancy but the pace of change is accelerating. The web has been the vehicle to release a huge amount of creativity – including from the developing world. It is a new social machinery and is becoming essential to modern living. The remaining challenges to eInclusion must be mastered. He thanked all involved and urged them to keep up the good work.

Abdul Waheed Khan considered the challenges from a global perspective. In the agricultural era prosperity depended on labour and land; in the industrial society capital and skill used machines to multiply muscle power. In the knowledge society brain power is the multiplier. Technologies bring good things to humanity, but can also accelerate divisions.

UNESCO's model of the knowledge society has four elements: knowledge creation, preservation, dissemination and utilisation, based on pluralism and inclusion, and springing out of fundamental needs and rights. But many are excluded, notably women, people in rural areas, members of language minority groups, indigenous peoples, illiterate people and those with disabilities. 10% of the 6 billion people in the world have some kind of disability. That means 600 million people are excluded. Over 80% of people with disabilities live in isolated areas in developing countries. Fewer than 2% of children with disabilities in developing countries are in school. It is easy to see how the problems of exclusion can compound themselves. Yet ICT can also enable inclusion, giving access to education, allowing people to share their own information. Accessibility should be built into products and tools from the earliest design stages. At a national level we need legislation, vision statements, standards and monitoring, training, data collection and research, and direct ministerial responsibility for disability issues. Access to the information society is not a charitable act it is a fundamental human right.



UNESCO's Model of Knowledge Societies (presentation of Abdul Waheed Khan)

Veli Sundbäck noted that it was only 21 years since the Copenhagen agreement which established the GSM standard for mobile phones. No other innovation has spread as rapidly, (2.7bn users 2 years ago; 3.8bn today). Mobile connectivity is no longer a privilege, it is a fundamental human right and a key enabler for social and economic activity. Take-up needs availability, affordability and accessibility. Of the total cost to buy and use a mobile phone, the mobile service accounts for 71%, the handset 14% and the balance (15%) is tax. Governments should eliminate tax and duties. Even the world's best connected countries can do more: the Connectivity Score Card tracks how well 25 countries use communications technologies for economic and social gain. The average score is only 5/10.

Functionality for access is getting more powerful, with ever smaller portable computers that help you find your way, predict the weather, watch movies, stay in touch by email, phone and digital camera. Nokia sold 60m devices last year. However, many of us don't know how to use all the features, even though we wouldn't describe ourselves as disabled. There are more than 600 million citizens in the world who need some kind of assistance to see, speak, hear or work the controls. Screen magnifiers, voice dialling and text to speech features are common today. These technologies don't just aid people with disabilities: text and instant messaging is a powerful tool for deaf people – and the most popular form of communication in China. As handheld multimedia computers get smaller, hands-free solutions improve, as do easy-to-read symbols and large fonts. These are a subtle and tactful part of good product design that assists everyone. They are not special needs. So the business benefits of inclusive design are very clear.

> *"What is accessibility today will be mainstream tomorrow"*
> *Robert Sinclair*

Robert Sinclair looked at the role in innovation in achieving accessibility. As people age, they experience a heightened need for accessibility. By 2020, 20% of workers will be 55 years and older (13% in 2000). As technologies evolve we are building in an increasing dependence on computer technology. Many aspects of daily life (health, voting, home appliances) assume everyone is online and able to comprehend and communicate with the product or service. Yet many product designs ignore accessibility. Faculties start to decline as early as 40, so as the population ages adaptations become more valuable to all citizens. "Accessibility" today defines tomorrow's "mainstream" customer requirements. A World War II radio engineer could repair anything, because the underlying technology was the same in every device. Today he can't programme his VCR because there is too much diversity. We spend too

much time adapting and learning to use each device we connect with. The technology must eventually adapt to the user and the setting - automatically. This is not a one-organisation challenge; we have to find a way to collaborate for end-to-end solutions. The call to action involves everyone: software & hardware developers; business leaders; educators; policy-makers; and standards bodies.

Adama Samassékou focused on issues of cultural and linguistic diversity. In the 21st century 774M adults risk dying without leaving their knowledge because it wasn't written down and there are no technologies to record it. English is the language of the web; pages written in local languages amount to less that 0.01% of available content. So language causes a greater digital divide than connectivity or physical ability. The world contains 40,000 different languages and only a tiny handful is supported in technology.

Language is the main instrument for building knowledge. Children in Africa and Latin America are denied access by the language barrier. In Africa only a small percentage of the population have a grasp of the official language, so cannot learn in the language they talk with their family, slowing educational progress and denying them access to justice and public services delivered in the official language. The internet offers a chance to upgrade and promote linguistic diversity. We need a new architecture for a multi-language internet covering both the infrastructure and the content of the messages. We should equip all languages to manage their own participation on the internet. We should teach computer skills to people in their own languages. One plank will be a cyber-volunteer programme. A major event is planned in Mozambique next year and Mr Samassékou appealed to industry representatives to support the meeting.

Conclusions

E-accessibility is not a charitable gift – it is a human right. Accessibility is no longer just a niche; it is a mainstream customer requirement of tomorrow. The business benefits are clear. Governments should assign ministerial responsibilities for inclusion and reduce taxes on mobile technologies and services. Education and standards are vital. Collaboration is needed for end-to-end solutions. Some trends drive towards further consolidation and simplification – e.g the predominance of English on the internet. Other trends suggest fragmentation, distributed expertise and user empowerment, calling for devices that self-adapt to users' needs and interoperate seamlessly with other tools and services across borders and sectors. We need initiatives to equip minority languages to manage their own participation on the internet.

PL6: Closing Plenary

Session Chair: Wolgang Blau

Speakers:

- *Bernard Benhamou, Ministerial Delegate on Internet Usages, French Ministry of Higher Education and Research, France*
- *Henrik Hansson, Ministry of Enterprise, Energy and Communications, Sweden*
- *Manfred Matzka, Director General, Federal Chancellery Austria*
- *Lenka Ptackova Melicharova, Deputy Minister for European Affairs, Czech Republic*
- *Viviane Reding, European Commissioner for Information Society and Media*

Presenting conclusions on behalf of the French Presidency, **Bernard Benhamou** expressed his thanks to the Austrian Government, the Chancellor's Office and the European Commission for their efforts in organising the eInclusion Ministerial Conference. ICT is of great importance for the future of the European population and the objective of the French Presidency had been to create a framework where it would become more visible. This was also the objective of the Digital France 2012 Plan, which includes recommendations for the inclusion of less well-connected groups. Related subjects had also been taken up in the recent conferences in Lyon and in Nice.

The internet is at a crossroads and is undergoing a profound transformation. Europe has a contribution to make here and, due to its strong position on mobile technologies, could play a key role in its future development. With more than 100 million broadband users, its cultural wealth and geographical diversity, Europe will be a catalyst for the development of new types of services focused on mobile services and on the 'internet of things'.

This technology will be a key element when it comes to penetration and development for population groups that are not yet connected. The PC is still considered inaccessible by 25% of the population because its user interface is too complex. Although not a universal solution, mobile platforms offer an advantage here. A great diversity of services can be developed on mobile platforms to fulfil social and political goals. New mobile services will offer key advantages in terms of inclusion and also in economic terms, ensuring connection to the internet will be even more comprehensive and broader.

So, this is no longer a technological issue but a social and economic one, particularly at a time where Europe needs to stimulate growth. These new services that are linked to geo-localisation, to proximity services, will create neighbourhood employment. They will be more sustainable jobs, which will lead to sustainable development also through the internet. One of the key issues, from the social, political and economic point of view, is to ensure that these technologies also offer solutions to wider environmental and social challenges.

In conclusion, Mr Benhamou noted that the meeting had made progress in a number of areas. It had been part of a process of awareness-raising and now we will be able to derive a benefit from that in social, economic, political and human terms so that the internet and all the technologies at our disposal conform with the values and aspirations of Europe's citizens. We have the possibility of communicating a message beyond the borders of Europe on inclusion, on individual freedom, and on the harmonious development of technology. France looks forward to continue working with its European partners in these efforts.

In a video address, Commissioner **Viviane Reding** noted that the Vienna Conference marked the closing of the Commission's ***2008 Be Part Of It*** campaign. But it was far from the end of Europe's commitment to e-Inclusion. Europeans and citizens worldwide are living in a time of rapid social and technological change. The recent market turmoil and the economic crisis remind us how fragile our societies can be, and how we need to pay attention to the most vulnerable.

Today, participating in the information society in an absolute must for getting a job, enjoying social and healthcare, accessing education, creativity, and nurturing entrepreneurship. We're seeing progress in inclusion thanks to our efforts over the years. Internet usage in Europe has grown rapidly, with disadvantaged groups improving their skills faster than the rest. Studies on digital literacy show that, with the exception of older people, the EU is outperforming the US in disadvantaged groups. Broadband coverage and affordability across Europe have improved significantly, although rural areas are still behind urban centres. We're also seeing the first results of work on accessible digital TV which are on show at the exhibition. And worldwide efforts of users and industry will soon result in a new specification for an accessible worldwide web.

Europe is making progress towards the Riga targets but must quicken the pace

These successes are encouraging, but e-Inclusion is not yet an accomplished goal. Large gaps still remain for the elderly, economically inactive and disabled. Dialogue on accessible digital TV should continue between users, TV manufacturers and broadcasters, together with the help of EU legislation and pilot projects. We must move quickly as digital switchover is near. Similarly, users, industry and authorities should provide barrier-free emergency services. And for the ageing population, the EU has opened the way for €1 billion to be dedicated to research and innovation for ageing well in the information society.

As regards further action, a new communication *Towards an Accessible Information Society* has just been adopted. It expresses Europe's determination to address challenges by enforcing synergies and cooperation between stakeholders. Among others, the Commission will provide active support for web accessibility implementation across Europe, and promote standardisation for e-Accessibility. "*It is clear there is only one way to go*", Mrs Reding concluded. "*We need to roll up our sleeves, concentrate our thoughts, and continue moving e-Inclusion forward toward achieving the Riga targets*."

Offering closing remarks on behalf of the Austrian hosts, **Manfred Matzka** asked what developments would be like in the coming years and decades? The exhibition and the e-Inclusion awards provided a preview, he said. There are three main trends policy-makers will have to face up to. The first is the ageing of our populations. The increasing number of elderly people in Europe brings considerable challenges for society, for politics, and for academia. Services will have to be made available around the clock, to everyone and easy to understand. ICT can make an important contribution, both for active senior citizens and for people in need of long-term care. The main problem here is not technology but changing structures and cultures. This is a major challenge for manufacturers and service providers, and for public administrations.

Education is another important factor. We know from studies that ICT usage may exacerbate existing forms of discrimination. The digital divide existed long before the digital age. But through the use of technology, these inequalities, between men and women, between age groups and income groups, become more pronounced. However, the dividing line in the future will not be between those with and without access. It will be between those who have a high level of education and enough knowledge to use these opportunities, and the rest, who are limited in their uptake of ICT because of their low level of education. So our system of education - schools, adult education, the entire system - must develop a more comprehensive approach so that everybody can derive the benefits.

The third element is the social barrier. There is still poverty on the European continent and existing technological possibilities are not affordable to everybody. This is a challenge for social policy, for infrastructure policy, and for the economy. The government has to make every effort to provide low-cost infrastructure. Businesses have to offer affordable equipment and develop such equipment. We need to work on reducing prices for access to the internet and we have to make sure that nobody is excluded from the digital age for economic reasons.

There are excellent examples, as seen in the exhibition, throughout Europe from which public bodies and others can learn. But much remains to be done. Europe has excellent structures and some of them may have to be streamlined to a certain extent, but they are all making a great effort.

Finally, Mr Matzka thanked delegates for visiting his country and wished them a safe trip home.

The e-Inclusion agenda will be developed further under the Czech and Swedish presidencies

Lenka Ptackova Melicharova welcomed the opportunity to address the meeting on behalf of the incoming Czech Presidency. The 2006 conference in Riga had set important goals to be achieved by 2010, but in many cases these are still a long way from being achieved. "We are half way through a marathon, but how do we get to the finish line?", Ms Ptackova Melicharova asked. Political declarations are important but millions of people around the world are still excluded from the information society. We need concrete actions and measures.

The motto of the Czech Presidency, which takes over in January 2009, is "Europe without barriers", and this is particularly relevant to e-Inclusion. Among the areas the Presidency will be highlighting for attention is e-Accessibility, not only for websites but also for other digital society devices and services, such as DTV, ATMs and public transport information. The Czech Republic introduced e-Accessibility rules in 2008 for the public sector and public procurement. It is also planning to adopt the Council Conclusion related to the Communication *Towards an Accessible Information Society.*

A second priority is inclusive e-Government. Here the CzechPOINT initiative is the national flagship for inclusive e-Government services and is being expanded into a 'one-stop-stop' for a wide range of services. Already CzechPOINT terminals can be found in 3000 locations within the Czech Republic and abroad, including the embassy in Vienna. It is removing barriers and helping bring public administrations closer to citizens.

Turning to the global context, we must also work to remove geographic exclusion. Only 5% of the African population has any internet connection. The Czech Republic has sponsored seven projects fostering computer literacy in Kenya and Uganda. Over 300 people have participated in these courses, many of whom have subsequently gone on to become trainers. Another aspect is the integration of migrants within the EU and promotion of intercultural dialogue. Here the Presidency will support the launch of an EU web portal which will help facilitate integration. Finally, the Czech Presidency will act for a safer internet, including staging a Ministerial Conference on *Safer Internet for Children* in Prague on 20th April 2009.

Looking further ahead, **Henrik Hansson** outlined the agenda of the Swedish Presidency during the second half of 2009. He welcomed the fact that the debate was now framed more in terms of 'inclusion' rather than 'the digital divide'. Sweden has a number of important developments in the area. In September 2008 the government launched a study which could form the basis for a National Action Plan for Inclusion. This would follow in the path of the e-Government Action Plan launched earlier, which aims to make e-Government services "as simple as possible for as many as possible", for all citizens and businesses. In November 2009 the Swedish Presidency will host a Ministerial Conference on e-Government as a follow-up to previous such events. This will place a strong emphasis on putting e-services close to the citizens, including areas like e-Inclusion and e-health.

With a new Parliament and a new Commission due in 2009, it is essential to set a new agenda. To shape matters in the ICT arena, Sweden will organise a major conference to explore a common European ICT policy for the period 2010 to 2015. Its working title is *"Post i2010 – towards a new agenda for the European Information Society".* Prepared in close consultation with the Commission and all the Member States, it will start to set the strategy for a future European ICT agenda to follow the i2010 initiative which has been in place since 2005. A Presidency report setting out initial orientations will be available in early 2009 and the Commission will also table its own papers.

Conference Agenda

e-Inclusion Ministerial Conference

Vienna, 30th November - 2nd December 2008

Europe's biggest event for e-Inclusion

Sunday 30th November – Day 1

08:30 Registration opens

09:30 Workshops

09:30-10:45	**Workshops**	
	Improving the Riga Dashboard for Web Accessibility: Solutions & Strategies – Microsoft and HiSoftware	**W1 Lehar 2**

10:45 Coffee Break

11:30-12:45	**Workshops**	
	e-Inclusion: The Role of Large Third Sector Organisations	**W2 Lehar 1**
	Improving the Riga Dashboard for Web Accessibility: Solutions & Strategies – Microsoft and HiSoftware	**W3 Lehar 2**
	Spanish National Organisation for the Blind (ONCE)	**W4 Lehar 3**
	The European Commission's e-Inclusion Policies and Projects: How Can I Be Included?	**W5 Lehar 4**
	Delivering Assistive Technology Services across Europe Without Barriers : New Opportunities - New Options	**W6 Stolz 2**

12:00 **Press Conference**

12:30 **Exhibition Opening Ceremony**
Erwin Buchinger, Federal Minister of Social Affairs and Consumer Protection, Austria
Vladimír Špidla, European Commissioner for Employment, Social Affairs and Equal Opportunities

Followed by:

Tour of the exhibition
Erwin Buchinger, Federal Minister of Social Affairs and Consumer Protection, Austria
Vladimír Špidla, European Commissioner for Employment, Social Affairs and Equal Opportunities
Heidrun Silhavy, Federal Minister for Women, Media and Regional Policy, Austria
Paul Rübig, Member of the European Parliament, Austria

12:45 Buffet Lunch

	Master of Ceremonies: ***Wolfgang Blau***

13:45	Welcome and keynote addresses	PL1
	Erwin Buchinger, Federal Minister of Social Affairs and Consumer Protection, Austria	
	Vladimír Špidla, European Commissioner for Employment, Social Affairs and Equal Opportunities	
	Eric Besson, Minister of State to the Prime Minister, with responsibility for Forward Planning, Assessment of Public Policies and Development of the Digital Economy, France	
	e-Inclusion: The Real Story - a selection of personal tales highlighting the positive impact ICT had on people's lives **Frieda Spielmann**, Austria **Jamshid Kohandel**, France **Rhodri Buttrick**, United Kingdom	
	A World of Opportunity Empowered by Technology **Craig R. Barrett,** Chairman of the Board, Intel Corporation Chairman, United Nations Global Alliance for ICT and Development, US	
	Citizen Media – Social Change **Boris Nemsic**, CEO, Telekom Austria Group, Austria	

15:45 Coffee Break

16:45-17:45	The e-Inclusion Debate	PL2
	A lively debate considering a number of key issues such as: • *Should there be a right to opt out of the information society?* • *Is e-Inclusion really worth investing in?* • *Is the Information Society an escape from the exclusion trap?* *Delegates and members of the public will have the opportunity to propose questions in advance via the conference website to be put to the panel during the debate.*	
	Moderator: ***Wolfgang Blau*** *Panellists:* **Heidrun Silhavy,** Federal Minister for Women, Media and Regional Policy, Austria **Craig R. Barrett,** Chairman, Intel Corporation and Chairman of the UN Global Alliance for ICT and Development, US **Mark MacGann**, Director General, European Information, Communications and Consumer Electronics Technology Industry Association (EICTA) **Marie-Béatrice Levaux**, President, French Federation of Household Employers, France **Anne-Sophie Parent**, Director, AGE-the European Older People's Platform	

19:00 – 22:00 **Cocktail Reception with welcome by Dr. Claudia Schmied**, Federal Minister for Education, Arts and Culture

Belvedere Palace

Monday 1st December – Day 2

07:45 – 09:00	**Intel Breakfast Briefing: Deploying e-Inclusion by Education in the 21st Century** *Venue: starts at Intel exhibition stand then moves to room Stolz 2*

09:00 – 10:15	**Parallel Sessions**	
	Digital Literacy: The EU Digital Literacy Review	**PS1 Lehar 1**
	Learn about the key findings and recommendations from the digital literacy review currently being undertaken by the European Commission. Who's doing what? What are the key dimensions? Hear from the report authors, members of the expert group and practitioners in the field about the implications and the necessary next steps in this cornerstone of e-Inclusion.	
	Chair: **Christa Prets,** Member of the European Parliament, Austria ***A Review on Digital Literacy*** **Frank Mather,** DG Information Society and Media, European Commission ***Best practices- Digital Literacy*** **Hanne Shapiro,** Centre Manager, Danish Technological Institute, Denmark ***Seniors' e-Inclusion: Recommendations in Context*** Joint presentation by **Jim Devine,** President, IADT Institute of Art, Design & Technology, Ireland and **Carmen Stadelhofer,** Director, Centre for General Scientific Continuing Education, University of Ulm, Germany	
	Ageing Well - User Needs and Expectations	**PS2 Lehar 2**
	Across Europe, new products and services for ageing well are being developed to help address the demographic change and help elderly people and their carers, including those based on ICT. But how can we be sure they are actually what people want? How do we identify and understand what the future needs of elderly people and their carers will be? How can ICT help? Will the quality of life be increased? Will human contacts be replaced by technology? With presentations from different user perspectives, this session promises some real insights.	
	Chair: **David Broster,** Head of Unit "Information Society", Institute for Prospective Technological Studies (IPTS), European Commission Joint Research Centre, Spain ***Ageing Well by Technology? How Older People Can Benefit from Information and Communication Technology*** **Dr. Heidrun Mollenkopf**, Sociologist**,** BAGSO e.V. / AGE ICT Expert Group, Germany ***Transforming Emergency Care for Seniors and Physically Disabled Citizens into a Comprehensive Portfolio of Civic Services*** **Jan Lorman**, International Federation on Ageing, Czech Republic ***New Solutions for New Problems: the Role of ICT in Supporting a Greying Europe*** **Paolo Da Col, MD,** Director of Health District nr. 1, Trieste, Italy	
	e-Accessibility – The European Approach	**PS3 Plenary**
	This session will enlighten you on the actions at European and Member State level and thinking for the future to turn the lack of accessibility of the information society around. Top level speakers will discuss actions that need to be taken for a future-proof and sustainable way to ensure that accessible ICT becomes the norm rather than the exception. *The session will be introduced by a report from a study and public consultation recently performed by the European Commission on a horizontal approach to e-Accessibility and on a legislative measure for web-accessibility*	
	Chair and introduction: **Jose Angel Martínez Usero**, INREDIS Scientific Director, Technosite –	

	INREDIS Consortium, Spain ***The European Legislative Landscape*** **Kevin Cullen,** Director, Work Research Centre (WRC), Ireland ***The Right to Accessibility: A Sisyphean Challenge*** **Rodolfo Cattani**, Doctor, European Disability Forum ***Legislative Approach in Norway*** **Wenche Lyngholm**, State Secretary, Norway	
	Investing: The Economics of e-Inclusion	**PS4 Lehar 4**
	'e-Inclusion: A Social Necessity and an Economic Opportunity'. A nice phrase, but what does this mean in reality? Can e-Inclusion really pay its own way? Can it be the lever for sustainable investments? Let the economists and practitioners demonstrate the value of investing in e-Inclusion	
	Chair: **Paul Timmers,** Head of Unit ICT for Inclusion, Directorate General Information Society and Media, European Commission ***E-skills and e-Inclusion: Some Benchmarks and Policy Implications*** **Bruno Lanvin**, Executive Director, eLab, INSEAD, France ***e-Inclusion Promises: Model and Empirical Evidence of Potential Outcomes*** **Cristiano Codagnone,** Aggregate Professor, Department of Social and Political Studies, Faculty of Political Science, Milan State University, Italy ***e-Inclusion and Value Creation*** **Hannes Ametsreiter,** Chief Marketing Officer, Telekom Austria, Austria ***Wireless Access & Quality Products for All*** **Lizanne Scott**, Regional Managing Director Europe**,** Motorola Inc.	
	Spotlight: Poverty & Unemployment – Active Inclusion through ICT	**PS5 Lehar 3**
	'A job is a key step out of poverty. It gives you a purpose and self respect!' But how does ICT help thousands of people take this step? See programmes and initiatives that have made a difference. Hear from those that have taken that step and how much it meant to their lives. Get to know what still needs to be done in order to promote active inclusion through ICT.	
	Chair: **Wayne David,** Parliamentary Under-Secretary of State for Wales, United Kingdom ***eSkills for Employability and Poverty Alleviation through Telecentre Networks*** **Ekaterina Fedotova**, Steering Committee Member, Telecentre-Europe, Russian Federation ***Participation is the Key: Towards a Multi-dimension and Participative Approach of Fighting (e) exclusion*** **Michaela Moser**, Vice-President, European Anti Poverty Network ***Employment of People with Disabilities – The Approach of the Business Taskforce on Accessible Technology*** **Susan Scott-Parker OBE**, CEO, Employers' Forum on Disability	

10:15 Coffee Break

10:45 – 12:00	**Parallel Sessions**	
	Digital Literacy: Making the case	**PS6 Lehar 1**
	How are the digital literacy dimensions identified in the review (PS1) being addressed in reality? Hear from four cases demonstrating how you can improve motivation and participation, enhance your services through better usability and e-Accessibility, delivering services with multiple content styles and platforms and how to address that eternal challenge of affordability and sustainability.	
	Chair: **Lieneke Jongeling**, e-skills ambassador, The Netherlands ***Improving usability and e-Accessibility*** **Helen Milner**, Managing Director, UK Online Centres, United Kingdom ***Establishing Senior Internet Initiatives in Rural Areas in BW, Germany*** **Bodo Kleineidam,** Dipl.-Ing., Pensioner, Network for Senior Internet Initiatives, Baden-Württemberg, Germany ***e-Inclusion Strategy in Extremadura: New Knowledge Centres and FLOSS*** **Luis Casas Luengo,** General Director, FUNDECYT, Spain ***Lessons in Educational Terrorism*** **Walter de Brouwer**, President and CEO, One Laptop Per Child, Belgium	
	Ageing Well: Investing in ICT for Sustainable Elderly Care	**PS7 Plenary**
	Does ICT lead to more efficient care? Is it still effective? Can ICT make the care sector more attractive for care workers and service providers? How do you deal with the risks? How can you assess the macro-economic benefits? Attending this session will equip you to develop your business case for investment in ICT for Elderly care.	
	Chair: **Dr. Gérard Comyn**, Acting Director, ICT Addressing Societal Challenges, Head of Unit ICT for Health, Directorate General I Information Society and Media, European Commission ***Welfare Technology - Danish Initiatives in Ageing Well*** **Claus F. Nielsen**, Senior Consultant, MedCom International, Denmark ***Bringing Technology and Healthcare Together in the UK*** **David Kelly**, Former Director, West Lothian CHCP and Managing Director (Scotland and Ireland), Tunstall, United Kingdom ***eVITA - Application Opportunities in the Healthcare System*** **Csaba Dózsa**, Expert, eVITA, Managing Director, Med-Econ Ltd, Hungary	
	e-Accessibility: A Dummies Guide to Web Accessibility	**PS8 Lehar 3**
	'What is all the fuss about? So my website is not accessible? So what!' Get an executive insight into how you can significantly improve your website through a few simple actions, leading to new markets and customers, and even avoiding costly legal battles! No HTML experience required!	
	Chair: **Judy Brewer**, Director, Web Accessibility Initiative, World Wide Web Consortium ***Web Accessibility Evaluation Made Easy!*** **Steven Sintini**, e-Accessibility Advisor, National Centre for IT in Public Administration, Project e-Accessibility and Public Administration - CNIPA, Italy ***Accessibility: A Quality Approach*** **Alexander Fase**, Project Manager Webguidelines, ICTU, Netherlands	

	Accessibility Across Web Formats **Matt May**, Accessibility Engineer, Adobe Systems ***Internet For All: How the First French Online Seller Becomes Accessible*** **Christelle Lortet,** Project Officer e-Accessibility**,** Voyages-SNCF, France	
	Investing: Social Networks, Social Enterprise	**PS9 Lehar 4**
	Just another buzzword, or a serious contender to overcoming serious social challenges. Make your own mind up after hearing evidence from some of the leading proponents in this developing field.	
	Chair: **Matthias Traimer**, Director Constitutional Service, Media Affairs/ Information Society, Bundeskanzleramt, Austria ***Using Technology to Transform Young People's Attitudes*** **Sam Conniff**, UK Social Enterprise Ambassador and founder of Livity/LIVE, United Kingdom ***Social Security e-Services - From Austria to Europe*** **Volker Schörghofer**, Deputy General Director, Main Association of Austrian Social Insurance Institutions, Austria ***Social Networks in Europe*** **Lars Hinrichs**, CEO/Founder, XING AG, Germany ***The Inclusive Power of Web 2.0***[i] **Valérie Frissen,** Center for Public Innovation, Erasmus University Rotterdam, Netherlands	
	Spotlight: Regions at the Sharp End of Globalisation: Taking the Bull by the Horns	**PS10 – Lehar 2**
	European and National policies may be necessary pre-requisites, but "globalisation offers no place to hide: regions and cities need to get ready for the globalisation challenge". *Regions and cities often bear the brunt of these rapid changes. The choice for them is arduous: they can either take the initiative and get ready to exploit the opportunities provided by globalisation or risk being left behind. The strategic use of ICT is today an essential factor enabling disadvantaged areas to compete on an equal footing with other more privileged parts of the world: it represents an opportunity that isolated and less developed communities cannot miss.* *How can regional and local authorities assist both individuals and enterprises in developing their innovation potential and exploit ICT to their advantage? Should public authorities be more drivers or more facilitators of change?* *See good practices to drive the e-Inclusion agenda forward as a key part of their plans to tackle social, economic and territorial cohesion.*	
	Chair: **Leighton Andrews AM,** Deputy Minister for Regeneration, Welsh Assembly Government, United Kingdom ***From Globalisation to Glocalisation: A New Opportunity to Exploit*** **Patrick Sullivan**, Director, CMI International Ireland Ltd, Ireland ***Aquitaine: A Strategic Approach to Respond to the Globalisation Challenge*** **Hervé Le Guyader**, Director General, Aquitaine Europe Communication, France ***Cities in the Frontline of Fighting for e-Inclusion*** **Taavi Aas**, Vice Mayor of Tallinn, Tallinn City Government, Estonia (EUROCITIES Knowledge Society Forum) ***Exchanging Good ICT Practice in Support of Local and Regional Development*** **Gareth Hughes,** CEO, eris@, Belgium	

12:00	Plenary – Visions of an Inclusive Information Society	PL3
	Hear from leading opinion makers and thought leaders on what the future holds for us if we achieve an inclusive information society – what will be the real benefits? And what financial and personal prices will we have to pay?	
	Moderator: **Wolfgang Blau** **Abdul Waheed Khan**, Assistant Director-General for Communication and Information, UNESCO **Adama Samassékou,** President, African Academy of Languages, Mali **Veli Sundbäck**, Executive Vice President, Member of the Group Executive Board, Nokia Corporation, Finland **Rob Sinclair**, Director of Accessibility, Microsoft Corporation ***Directions in Web Technology*** Video address: **Sir Tim Berners-Lee**, Director, World Wide Web Consortium, US	

13:15 Buffet Lunch

14:30 **Interactive Theatre**
"Meet Martha and Joe", an elderly couple living in a "smart home", with designed technologies to make their life easier. The public will be able to interact and ask questions

14:30 – 15:45	Parallel Sessions	
	Inclusion 2020: Future Perspectives	**PS11 Plenary**
	What does the future hold for us? Where is technology going? How will nano- and bio-technology influence us? Will we all simply 'plug in' in the future? Hear from leading futurologists and experts on what technology may hold for us and what that could mean for the society we live in.	
	Chair: **David Banes,** Director of Development, AbilityNet, United Kingdom ***Raising The Floor: We Now Have the Ability to build Accessibility Directly into the Internet to Allow Access by All, Including Those With Little or No resources*** **Gregg Vanderheiden Ph.D.,** Professor/Director**,** Trace R&D Center, University of Wisconsin-Madison, US ***The Name of the Future is User – No Progress in e-Inclusion without Improving Pro-active User Involvement*** **Wolfgang L. Zagler,** ao. Univ. Prof., Vienna University of Technology, "integrated study" Institute, Austria ***Service Robots for Home Assistance: Markets, Research and Product Visions*** **Dr. Birgit Graf**, Group Manager Domestic Service Robotics/Personal Robotics, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Germany	
	Ageing Well: New Markets and Opportunities	**PS12 Lehar 2**
	What are the real market perspectives on ICT and ageing seen from industry? Are there future business models? Who are the new players, how do we get the right products and services, what are boundary conditions for making it happen? Hear leading industrialists explain their perspective.	
	Chair: **György Csepeli**, Public Policy Director, Prime Minister's Office, State Secretariat for Informatics, Hungary ***Barriers to the Development of ICT & Ageing Markets in Europe: Some Preliminary Findings***	

	Karsten Gareis, Project Coordinator, empirica Gesellschaft für Kommunikations- und Technologieforschung mbH, Germany ***Ageing Society: New Opportunities for Real Estate*** **Tim Bellman**, Global Head of Research & Strategy, ING Real Estate, United Kingdom ***Efficiency and Integration of Health and Social Care through Telehealthcare*** **Eric Pol**, Managing Director, Tunstall Healthcare France, France ***Ageing Well - New Markets and Opportunities*** **Fernando M. Fournon**, Chairman and CEO, Telefónica I+D, Spain	
	Inclusion 2020: The Ethics of e-Inclusion	**PS13 Lehar 3**
	Delivering an inclusive information society will force us to address some tricky ethical issues. Can you opt out of the information society? Do our existing privacy laws help or hinder progress?	
	Chair: **Stefano Rodotá**, Professor for Civil Law at the University La Sapienza, Italy ***Social, Ethical and Privacy Needs in ICT for Older People: A Dialogue Roadmap Including Seniors in the Information Society: The Ethical Context*** **Emilio Mordini,** Director, Centre for Science, Society, and Citizenship, Italy ***Main Outcomes of the High-Level Workshop on Ethics and e-Inclusion in Bled, Slovenia*** **Prof. Margit Sutrop**, Director, University of Tartu, Estonia ***The Revolution of the Accessibility within a Telecommunications Group*** **François-René Germain**, Accessibility Director, France Telecom, France ***Ethics and ICT*** **Dr. Maurizio Salvi,** Head of the EGE Secretariat, Member of the Bureau of European Policy Advisors (BEPA), European Commission ***Ethics and e-Inclusion: A Disability Perspective*** **Kevin Carey**, Director, humanITy and Vice Chair, Royal National Institute of Blind People (RNIB), United Kingdom	
	Investing: Future Broadband Challenges: The Long term View	**PS14 Lehar 4**
	Regions investing in broadband are buying stock options for the social and economic development of their territory. As new services and technologies emerge also new gaps open up. Investment in high-capacity broadband starts taking place in large urban conglomerates driven by competition, while some utilities are managing to bring these services to the rural areas. New gaps will however emerge as market forces will not incur the high investment costs in rural areas. Is high-capacity broadband necessary everywhere? Should policy makers tackle the second generation broadband divide? What is the role of public authorities at all levels to facilitate investment in fibre-based technologies? The session will discuss the policy and regulatory options ahead, the specific initiatives aimed at tackling the forthcoming challenges and at the investment models being proposed to close the new infrastructure gaps.	
	Chair and introduction: **Lucilla Sioli**, Head of Sector, DG Information Society and Media, European Commission ***How, Where and When? A UK Perspective on Next Generation Broadband*** **Anthony Walker,** Chief Executive, Broadband Stakeholder Group, United Kingdom ***The Close the Gap Model Applied in Nuenen, The Netherlands*** **Kees Rovers,** Director and Founder, Close the Gap BV, Ons Net, Netherlands	

	The Future of Broadband is in the Community **Malcolm Corbett**, CEO, Community Broadband Network, United Kingdom ***Regulatory Implications of Next Generation Network and Access*** **Georg Serentschy**, CEO Telecommunications, RTR-GmbH (Austrian Regulatory Authority for Broadcasting and Telecommunications), Austria	
	Spotlight: Europe of Migration, Europe of Inclusion	**PS15 Lehar 1**
	ICT for social inclusion and cultural diversity in Europe *… Immigrants and ethnic minorities are often eager users of new ICT, if anything else to better maintain contacts with the home countries and with other members of the highly mobile transnational communities they belong to. This session will explore the current and potential benefits of the direct and indirect use of ICT by/for immigrants and ethnic minorities, especially in the perspective of enabling their social inclusion and promoting cultural diversity in the EU.*	
	Chair: **Stefano Kluzer**, Researcher, Information Society Unit - ICTAS Action (ICT Applications for Society), DG JRC - IPTS (Institute for Prospective Technological Studies), European Commission ***The Digital Integration of Immigrants and Ethnic Minorities in Europe: Results from Recent IPTS Studies*** ***Local Community Development and Ethnic Entrepreneurship*** **Ed Klute**, Director, Mira Media, Utrecht, Netherlands ***CONECTA YOUTH, Giving Citizenship, Improving Opportunities*** **Pedro Aguilera Cortés**, Project Manager, CONECTA NOW, Fundación Esplai, Spain ***"ESTIA": An Innovative Interactive Network for the Benefit of Asylum Seekers and Refugees*** **Lora Pappas**, Project Manager, National Youth Foundation, Greece ***Putting Information and Communication Technologies at the Service of Immigrant Settlement in Ontario, Canada*** **Dr. Andrea A. Cortinois**, International Partnerships Regional Coordinator for the Americas, Instituto de Innovación para el Bienestar Ciudadano (I2BC), Málaga, Spain *and* Centre for Global eHealth Innovation, University of Toronto, Toronto, Canada	

15:45 Coffee Break

16:00 Telecentre-Europe launch (in the exhibition hall)

16:30 – 17:30	**Ageing well in the Information Society – A Worthwhile Investment?**	**PL4**
	'We are all getting older, and there are more of us than ever before!' Will there be a "care divide" between rich and less rich regions and citizens in the future? How can technology help avoid this? What are the alternatives? Can ICT really make the significant differences we are hearing about? How can we move the agenda forward? This debate promises to tackle some of the biggest questions in this field.	
	Moderator: **Wolfgang Blau** *Panellists:* **Guus Broos**, CEO, Orbis Medical and Care Group, Netherlands **Stan Smits**, Chief Software Technology Officer, Philips Healthcare, Netherlands **Anne-Sophie Parent**, Director, AGE-the European Older People's Platform **Paul Rübig**, Member of the European Parliament, Austria **Thomas Børner,** Senior advisor, Ministry of Finance, Denmark	

19:00	**Gala Dinner and Awards Ceremony** Gala dinner hosted by **Michael Häupl,** Mayor of Vienna **Awards Ceremony** moderated by **Barbara Rett** and **Wolfgang Blau** Vienna City Hall

Tuesday 2nd December – Day 3

09:30 **Interactive Theatre**
"Meet Martha and Joe", an elderly couple living in a "smart home", with designed technologies to make their life easier. The public will be able to interact and ask questions

09:30 – 10:45	Parallel Sessions	
	Investing: Inclusive Public Services	**PS16 Lehar 1**
	"….It costs less to include than to exclude"…. Online public services are everywhere. But are they including the very people they most need to reach? And how can socially disadvantaged groups and minorities tangibly benefit in their real lives from more inclusive public services? This session will draw attention to the complex landscape in Europe in the context of the delivery of Public Services to citizens in need of social support, and show how the benefits of Inclusive eServices provided by public administrations can be reaped by all citizens without exception.	
	Chair: **Mechthild Rohen**, Head of Unit ICT for Government and Public Services, DG Information Society and Media, European Commission **Prof. Luis Magalhães,** President, Knowledge Society Agency (UMIC), Portugal ***Better Social Outcomes Using ICT — Sustainable Local Services for Social Inclusion*** **Paul Waller**, Director, Digital Inclusion Team, City of London, United Kingdom ***Could e-Inclusion Really Work for Them?*** **Marianna Pósfai,** Strategic Director**,** eINclusion and Knowledge Foundation (eINK), Hungary ***Holistic, Seamless E-Government - A Key for Inclusive Public Services*** **Reinhard Posch**, Federal Chief Information Officer, Federal Chancellery, Austria	
	Inclusion 2020: Sharing International Experiences	**PS17 Lehar 2**
	Digital Exclusion is a global challenge. Hear how other regions of the world are addressing it in their own ways. You may be surprised by what you learn!	
	Chair: **Professor Jim S Sandhu,** Director, Inclusive Design Research Associates, United Kingdom ***Reflecting on e-Inclusion in the Context of Emerging Economies and Developing World and the Need for Sustainable Partnerships: The Case of South Africa*** **Mr Derek Hanekom**, Deputy Minister, South African Department of Science and Technology ***Indian e-Inclusion Project Examples and the "Voices for Innovation Campaign"*** **Ms. Jayalakshmi Parameswaran Chittoor,** Programme Coordinator, Centre for Science, Development and Media Studies, Noida, Uttar Pradesh, India ***A Silenced Majority - Technology for Hearing Impaired and Deafblind People*** **Brother Andrew A.L. de Carpentier**, General Director, The Holy Land Institute for the Deaf & Deafblind, Salt - Jordan	

	Digital Inclusion in Brazil: Projects and Challenges **Mr. Cezar Santos Alvarez**, Head of Cabinet, Agenda Planning for the President of the Federative Republic of Brazil, Coordinator, Brazilian Digital Inclusion Programmes, Brazil.	
	e-Accessibility: Life Changing Solutions	**PS18 Plenary**
	Accessibility and assistive technologies aren't just about websites. From mobile phones to digital TVs. From ATMs to payment devices in shops. Hear how users and industry are working together to design accessible devices and technology that can help us all.	
	Chair: **Vappu Taipale,** Professor, WHO Collaboration Centre for Mental Health Promotion, Prevention and Policies, Finland ***Why e-Inclusion Matters: A Citizenship Perspective*** **Guido Gybels**, Director of Technology, Royal National Institute for Deaf People (RNID), United Kingdom ***E-Accessability in Europe*** **Nigel Prankard**, DVB Product Manager, European TV Design Centre, Panasonic, United Kingdom ***Accessible Design of Mainstream Products and Services: Challenges, Opportunities and Limitations*** **Ginger Bastian Claassen**, IC Consultant, Siemens Accessibility Competence Centre, Germany ***Your Bank Nearby. Making Modern Banking Accessible*** **Cynthia Tulp**, Marketing Concept Manager, Rabobank, Netherlands	
	Investing: Making the Case	**PS19 Lehar 4**
	Defining e-Inclusion is tricky enough. Making a business case and demonstrating progress is even more challenging. How do you measure success in a field that needs to see return on investment sitting alongside social justice? How will we develop the Riga dashboard to respond? How do we make the case for investment	
	Chair: **Linda Mauperon**, Member of Commissioner Viviane Reding´s Cabinet, European Commission **Jean-François Van Kerckhove**, Head of Corporate Strategy, eBay, US ***3G Accessibility as a Key Opportunity for ICT*** **Blanca Alcanda**, CEO, Technosite, Spain ***Reaching Out - Inclusive Business*** **Caroline Waters**, Director People and Policy, BT plc, United Kingdom ***The Austrian Citizen-Notebook. Contribution to Increase utilisation of e-Government and Bridge the Gap to Non-digital-natives*** **Marco Harfmann**, Director Consumer Business, Fujitsu Siemens Computers GesmbH, Austria	
	Spotlight: Gender and Equality	**PS20 Lehar 3**
	How can ICT help equality of access to opportunities and rights, regardless of gender? **Chair: Femke Snelting**, Artist, designer, Constant, Belgium ***Addressing Presence: Statistics on Women and ICT*** **Introduction: Heidrun Silhavy,** Federal Minister for Women, Media and Regional Policy, Austria ***Women and ICT – Challenges and Chances on the Labour Market*** **Daniela Schallert**, Executive Director, abz*austria – competent for women and business, Austria	

	Encourage and Expose **Donna Metzlar**, Community Advocate, Genderchangers, Netherlands **Montserrat Boix**, Founder and Coordinator, Mujeres en Red, Spain ***Inclusion and e-Participation: How to Avoid Exclusion and Gender Stereotypes*** **Dr. Doris Allhutter,** Researcher, Austrian Academy of Sciences, Institute of Technology Assessment, Austria

10:45 **Coffee Break**

11:15 – 12:15	Digital Literacy – an Essential Life Skill	PL5
	With technology now such a fundamental part of our daily lives, surely being literate in using IT and interpreting information is as crucial a basic life skill as reading or writing. Or is it? How do we avoid creating or perpetuating an underclass of digital illiterates? How will people cope without the skills? Can you 'opt out' of the information society? Can the technology help? Join this debate to hear and contribute to one of the most challenging aspects of the e-Inclusion agenda.	
	Moderator: **Wolfgang Blau** **Rudolf Schicker**, Executive City Councillor for Urban Development, Traffic and Transport, Vienna, Austria ***Internet Natives, Internet Immigrants: Closing the Gap in Europe*** **Edit Herczog**, Member of the European Parliament, Hungary ***Digital Literacy – Using Technology to Enjoy Learning*** **Gabi Zedlmayer,** Vice President, Corporate Marketing and Global Citizenship, Hewlett Packard, Europe, Middle East and Africa, Switzerland ***Digital Media Literacy: Beyond Access*** **Professor David Buckingham,** Professor of Education, Director, Centre for the Study of Children, Youth and Media, Institute of Education, University of London**,** United Kingdom	

12:15 **Interactive theatre**: "**I left my glasses in the taxi!"** A light-hearted insight into a future where inclusive technology is widespread – but will we be able to use it?

12:30 – 13:30	Closing Plenary	PL6
	Presidency Conclusions **Bernard Benhamou,** Ministerial Delegate on Internet Usages, French Ministry of Higher Education and Research, France	
	Viviane Reding, European Commissioner for Information Society and Media (video address)	
	Manfred Matzka, Director General, Federal Chancellery Austria	
	Czech forthcoming Presidency **Lenka Ptackova Melicharova**, Deputy Minister for European Affairs, Czech Republic Swedish forthcoming Presidency **Henrik Hansson,** Ministry of Enterprise, Energy and Communications, Sweden *Master of Ceremonies:* ***Wolfgang Blau – closing***	

13:30 Buffet Lunch