Microsoft White Paper

## Supporting the Lisbon 2010 goals

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## The road to Lisbon 2010 – the role of ICT

In March 2000 the European Council assembled in Lisbon set an ambitious strategic goal: to become, by 2010, "the most competitive and dynamic knowledgebased economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion."

At the mid-way point to 2010, it is becoming critical to move the reform agenda faster and deeper if the ambitious growth targets set are to be reached. This is all the more urgent in light of the historic accession in 2004 of ten new countries to the European Union and the framework for negotiations on accession by additional new Member States in the coming years.

The achievement of the Lisbon goals requires the enabling of individuals, enterprises and communities to become more competitive and innovative across the European Union. It also requires increased commitment and collaboration by both the public and private sectors to ensure that Europe, in its broadest sense, makes sustainable progress towards building an inclusive Information Society for all.

Like the EU, Microsoft sees the period 2000-2010 as the 'Digital Decade' in which technology acts as a key driver in enabling individuals, businesses, governments and communities to realise their full potential.

The role of Information and Communication Technologies (ICT) in helping to deliver the Lisbon vision is undisputed; the eEurope Action Plan provides the roadmap to leverage technology to meet Europe's shared goals. The eEurope Action Plan played an important role in stimulating economic dynamism and innovation in the preparations for EU accession and continues t o help drive integration in the new EU.

ICT plays an important role in improving productivity, which in turn is the main driver of economic growth. By enabling creativity and efficiency in information processing, sharing and utilisation, ICT tools and solutions encourage the development of widespread and consistent high performance. One of the groundbreaking aspects of the Lisbon agenda was the appeal by the heads of European governments to businesses' new sense of corporate social responsibility as an asset for Europe's competitiveness goals, particularly through lifelong learning, enabling opportunity and social inclusion. Microsoft recognises the importance of this call and has been inspired by it in furthering our efforts to embed Citizenship in our business through:

- Openness in our business practices and with our technology
- Empowering local communities through partnerships for digital inclusion
- Empowering our employees to realise their potential and be the best they can be
- Showing responsible leadership for the sustainable information society through partnerships on policy issues such as spam, child safety online, local language versions of our products, and other initiatives.

The Lisbon agenda extends into almost every aspect of European and Member State policy, from the approach to employment and social affairs to the protection of intellectual property rights and innovation; it affects the ways in which businesses perform and citizens work and live. While this paper does not attempt to address every aspect of the Lisbon process, it sets out the primary ways in which Microsoft is working to support the Lisbon goals and contribute to the information society through partnerships with industry, government and communities across the new European Union.

## Building a competitive and dynamic knowledge-based economy

The Lisbon Agenda sets a key marker for increasing Europe's innovation investment – from 1.9 percent of GDP to 3 percent by 2010, with the private sector contributing two-thirds of the increased investment. Achieving this involves several fundamental competitiveness challenges:

- Keeping pace with the research spending of key trading partners
- Retaining and attracting the best researchers
- Improving the foundations for commercialisation of research.

Research and development are key to enabling the IT sector to keep pace with the demands of the new economy. Microsoft is contributing through four main R&D facilities in Europe.



#### Microsoft Research (MSR) Cambridge, UK

Bringing together Europe's most creative minds, MSR-Cambridge has over 80 full-time staff of some 16 different nationalities. The facility aims to accelerate the next generation of software innovation, driven by fundamental challenges and long term vision, not by today's market demands. A key part of its mission involves research to make computers easier to use and more cost-effective, and to make developers more productive. Research areas include operating systems, networks & distributed computing; machine learning & perception; programming principles & theory; and interactive systems. The facility has produced significant and tangible results in developing Tablet PCs and i2i, a new technology enabling cameras to follow movement during Web-based video conversation.

## European Microsoft Innovation Centre (EMIC), Aachen, Germany

EMIC provides a focal point for Microsoft's collaborative efforts with industry and academia in Europe on applied research projects such as those sponsored by the European Commission and national research programmes. The Centre participates in EC co-funded projects involving Web services for eLearning, eHealth, security and privacy and networking technologies, and is a member of the Integrated Projects and Networks of Excellence selected by the European Commission for the first call of the 6th Framework Programme. EMIC is developing strong relationships with the University of Aachen, and has academic partnerships with a number of other educational institutions.

#### Microsoft Business Solutions Centre, Vedbaek, Denmark

Beyond pure and applied research, the Microsoft campus at Vedbaek employs more than 700 people and is the company's largest development facility outside of the main campus in Redmond (US). It focuses on supply chain management strategy, Microsoft Business Framework, and Project Green – building the next generation of Microsoft Business Solutions. The Microsoft Business Solutions division works with Europe's developer community to produce solutions to help foster growth in the region's small and medium enterprise sector.

## European Product Development Centre (EPDC), Dublin, Ireland

The EPDC is charged with ensuring that Microsoft products are available in different versions across Europe, reflecting local languages and culture and ensuring communities have access to IT in their own language. The EPDC employs linguistic specialists to localise software into over 35 languages and dialects spoken across the region – including regional languages such as Basque and Catalan.

#### Microsoft Technology Centres (MTCs), Munich, Germany and Reading, UK

MTCs support local IT industries in their objectives to compete in the global market. They work side-by-side with customers' architects and developers to rapidly find solutions to their technology challenges. To assist in this, the MTCs have formed alliances with industry leaders that provide comprehensive resources such as hardware, software and services to MTC customers from local IT industries which create a sound environment for development.

## More and better jobs in the knowledge-based economy

One of the principal reasons for the Lisbon Agenda focus on growth and competitiveness is to deliver more and better jobs and quality of life for Europe's citizens. Although six million new jobs have been created since the launch of the Lisbon process, unemployment across many parts of Europe remains too high and EU governments recognise that more needs to be done.

One requirement is to speed up the flow of information across the EU regarding local or regional job vacancies and, importantly, to use data mining to identify ways in which to create similar job opportunities elsewhere in the EU. We and our partners have developed solutions that can help.

In addition, Microsoft helps create sustainable jobs through our software development network – today companies that have built their businesses on sales or development on the Microsoft technology platform employ over 1.6 million people in Europe.

Recent studies, including one by the Economist Intelligence Unit sponsored by Microsoft, confirms the direct link between ICT and economic growth and job creation, once a minimum threshold of ICT development is reached. Importantly, ICT uptake and job creation rely upon a number of factors beyond the availability of technology, particularly investment in skills, innovation, competition and an enabling business environment, ICT in the public sector, and invigorating R&D.

As part of this, Microsoft is participating in the EU's ProLearn network of excellence which aims *inter alia* to increase the transferability of training so that trainees find it easier to apply their new knowledge.

#### EDEN project, EU



European Commission

The Employment Data Exchange Network (EDEN) is a Web-based platform for the display, exchange and processing of CVs and job vacancies from around Europe. It uses Microsoft BizTalk Server to receive data in multiple languages from the heterogeneous systems of various public employment services. Developed by Forem, the public employment agency of Wallonia (Belgium) under the sponsorship of the European Commission, the EDEN project serves jobseekers, companies and government employment advisers, and lays the foundation for a onestop-shop for European labour mobility.

## Building inclusion in the information society

The potential for everyone in society to contribute underpins the Lisbon vision. It is a vision that Microsoft shares. As we have grown to become a global industry leader, we recognise that our responsibilities as a corporate citizen and a responsible industry player have grown in parallel. We have extended our original business goal - a PC on every desk and in every home - to helping people and businesses everywhere realise their full potential through information technology through multiple platforms.

Accessibility plays a major role in building social inclusion. For more than fifteen years, we have been building features into our products to enable people with mobility or sensory impairments and other disabilities to access work, communities and information online. This means ensuring that the needs of people with disabilities are taken into account in the early stages of design and planning of our software. Initiatives range from increasing text sizes and simplifying interfaces and icons to speech recognition and support for specialised hardware.

Accessibility is also key to competitiveness, and assistive technologies can help bolster productivity by helping many disabled people to remain and re-integrate in the workforce.

At Microsoft, we have a long-standing commitment to partnership with NGOs and disability charities across Europe, providing IT access and training for the elderly and people with special needs. We actively supported the 2003 European Year of People with Disabilities through internal and external awareness-raising and outreach to policy-makers to support and contribute to policy and standards. Microsoft fully endorses the EU follow-up Action Plan and will continue to play our part in helping increase the level of awareness regarding the rights of people with disabilities amongst businesses, governments, NGOs and individuals.



SeniorNet Sweden is a nonprofit organization with a mission to provide older adults training and access to computer technologies to enhance their lives and enable them to share their knowledge and wisdom. It started in 1997 with government funding as an early response to confront problems of "digital divide", the generation gap in adoption of IT-tools. SeniorNet Sweden was inspired by the SeniorNet Organization in the US and has a national organization with a board and a small office as well as 53 regional clubs across the country, in total about 6000 members. Microsoft is partnering with SeniorNet by providing IT skills training and up-dated equipment, building a virtual community of Swedish senior citizens and starting and supporting local SeniorNet clubs.

### Greater social cohesion

Throughout Europe, there are disparities in productivity and employment and pockets of marginalisation in urban areas and in rural communities. Bridging the technology gap can help to re-dress the imbalance of different groups advancing at different speeds. ICT can provide people, communities, regions and countries with the tools to connect to opportunities across Europe and realise their true potential.

At Microsoft, we can mobilise resources and expertise to share in partnerships aimed at bringing IT to the communities that need it most. For the past twenty years we have been an active supporter of thousands of community programmes in Europe and around the world.

Our Digital Inclusion initiative brings together most of our community projects, focusing on classroom education and teacher training through our Partners in Learning programme; and providing lifelong learning opportunities for under-served groups and communities through Unlimited Potential (UP).



offers free and open access to technology and computer learning. At their daily care centre, the Agora, there was always a queue of people waiting to use their four computers. Microsoft, through its UP programme, worked with Emmaüs to provide a dozen new machines – eight in the Agora and four in two other centres around Paris – fully equipped with free unlimited access to the Internet and to a printer. The computers have proved useful to the regulars at Emmaüs, allowing them to learn French, look for jobs on the Internet, and reconnect with families, society and the professional world. The goal of both programmes is to help eliminate technological illiteracy and exclusion by combining enhanced IT access with support for teachers and schools, and for community technology and learning centres (CTLC) through IT skills training, technology grants and local curriculum development.

#### PCs Against Barriers, Czech Republic



When a serious accident left Martin Kovar disabled, he discovered his passion for IT. To help other disabled people gain IT skills and realise their potential, Kovar co-founded an organisation called PCs Against Barriers. Supported by the Czech Republic's Charta 77 foundation, the programme has been made possible by the public/private collaboration between several local NGOs, state agencies and Microsoft Czech Republic. More than 1,000 people have already received IT training from PCs Against Barriers whose foundation boasts a 98 per cent employment rate among its initial graduates. Many work from home while others go on to study for degrees or attend vocational courses in electronics, architecture, graphic arts or desktop publishing.

Our programmes are global in scope, adapted to local needs. We recognise that to achieve the shared societal goals of education and lifelong learning, and economic growth and regeneration, partnerships to share and multiply resources are needed to ensure that the opportunities and benefits are available to all.

## Sustainable economic growth

Converting innovation into sustained economic success is one of the key goals of governments across the European Union. Towards this aim, many governments are looking to work in partnership with industry to define and shape the optimal enabling framework for innovation in respect to both financial investment and human creativity.

In order for society to benefit from the investment in innovation, individuals, companies and universities need to know that intellectual endeavour will be rewarded. Intellectual Property protection is therefore important to promote the growth and development of companies that invest in innovation and the overall knowledge base.

Sharing knowledge skills and expertise is a vital prerequisite for sustained economic growth. In this regard, Microsoft views collaboration equal in importance to competition in terms of fostering sustained economic growth. Through our partner model we work with thousands of companies to provide the building blocks – platforms, solutions and services – they need to create and market their own products and services.

> Microsoft works with 195,000 local partners, including 25,000 independent software vendors, across Europe, Middle East and Africa. It is this ecosystem of resellers, service providers and independent software vendors that provides the basis of sustainable economic growth, driven by continued innovation in the ICT industry.

## The key building blocks of eEurope

The eEurope 2005 Action Plan provides the means by which technology will be brought to the centre of people's lives, acting as an enabler and helping people live and work in a more productive, open and inclusive society. Through the eEurope+ 2003 Action Plan, this process is extended to the EU candidate countries.

eEurope is focused on the areas of:

- eGovernment, to bring citizens, business and governments closer together, heightening the democratic process and enabling individual access to vital public services as and when needed.
- eLearning, to enable people to benefit from new innovative approaches to education and training, producing a highly skilled generation of workers tuned into the modern economy and enabling anyone, anywhere to continue learning.
- eHealth, to provide access online health data and benefit from a range of improved patient care
- eBusiness, to stimulate the economy and provide a supportive environment for entrepreneurs and facilitate the provision of services and products to consumers.

The potential offered by information technology will only be fully realised if people feel secure in the online environment, and if the services are widely available at low cost through fast broadband connections.



Also underpinning the achievement of horizontal eEurope objectives is interoperability. Enabling competing systems and devices to exchange information is a challenge for governments in their move to bring public services online. And in the internal market, the ability to easily access and exchange data and information across national borders is increasingly essential for government, industry and the public alike.

Broad public up-take of the services being developed and offered depends upon the ease with which they can be accessed via multiple platforms, from PCs and digital television sets to mobile phones.

Industry has shown that it is willing to take the lead on interoperability, through the formation of the WS-I (Web Services Interoperability) organisation, and participation in standards bodies. At Microsoft, we are working with industry partners, with national governments and with the EU to help ensure that the solutions we develop meet the demands of eEurope and the requirements of the internal market.

Microsoft has developed an XML-based Information Bridge Framework to help administrations, businesses and citizens to quickly gain access to the information they need, across multiple data stores. And in the area of education, Microsoft is a major supporter of public-private initiatives to establish open standards for eLearning and lifelong learning, such as SIF (Schools Interoperability Framework). We are also a board member of IMS Global Learning, are on the Executive of the Brussels-based eLearning Industry Group, and are the main 2005 sponsor of the European ARIADNE foundation.

The success of eEurope is dependent upon competing systems and devices being able to exchange information. Industry has longrecognised this need, and is steadily improving the interoperability of systems. This is still evolving, and there is a need to ensure that standards are developed to keep pace with the rise of new distribution means.

#### eGovernment



eGovernment lies at the heart of the drive to build a modern, inclusive Europe, delivering better, more efficient public services and transforming the relationship between citizens, businesses and their governments. Member States are reporting solid progress in the growth of online service delivery, Public Internet Access Points (PIAPs), broadband connections for administrations, and e-procurement.

#### Interactive public e-services

Enabling citizens and businesses to interact with public departments drives transparency and efficiency; moving from an era of queues to one in which personalised public services can be accessible 24 hours a day.

At Microsoft, we have been working with the EU and with national, regional and local governments across Europe to help them develop interactive public services and provide access to the range of government departments through a single contact point. Developing user-friendly services underpins the broad public up-take needed to make eGovernment a success.

#### Achieving Interoperability

Interoperability is the key to enabling seamless access to the services of different departments and linked organisations.

## Joint Electronic Public Procurement (JEPP), Belgium

The Federal Government of Belgium consists of 15 ministers responsible for implementing legislation and exercising the federal executive power. For companies, it was difficult and time-consuming to search for and respond to requests for procurement proposals due to a lack of cross-agency co-operation and data integration in the procurement process. The Government policy to reduce paperwork and simplify administrative procedures led to the JEPP project, an e-procurement solution developed using the Microsoft .NET Framework and XML Web Services. Consisting of a network of portals that cascades into one common government-wide portal for the online publication of tender notices and schedules of conditions from across the Belgian public sector. *@www.jepp.be* 

#### AVANTI project, EU



The AVANTI (Added Value Access to New Technologies and services on the Internet) project was a two-year (2001– 2003) R&D project part funded by the European Commission under its Information Society Technologies (IST) Directorate General within the 5th Framework Programme. It involved four municipalities – Lewisham-London (England), Kista-Stockholm (Sweden), Edinburgh (Scotland), and Ventspils (Latvia) – and Fujitsu and Microsoft as industry partners. The project developed new kinds of Web interfaces to make online public services more attractive and easier to use, including an avataran intelligent on-screen animated character that takes the role of a local council representative who talks to the citizen via the screen while its words are simultaneously displayed in a speech bubble. Citizens give their response by typing, speaking or handwriting and the system drives the conversation with an interface to council systems and databases through a sophisticated natural language processing component. The aim of the project was to enable the citizen to enter their request or response in as natural a way as possible, and for the system to understand and act on it. Microsoft's approach in all its eGovernment work across has been to supply a set of standard tools that can be customised to the needs of specific administrations, but which maintain their standards based on functionality and interfaces. This allows for ease of integration with other applications, and ease of use for governments and the public.

Cost-effective, flexible, standards based solutions will help administrations across Europe further integrate and help new Member States move as quickly as possible to a position of parity with existing members.

There is also increasing emphasis on the ability for information to be rapidly exchanged across borders and between administrations. To this end, Microsoft is actively working with administrations in their efforts to improve data exchange using open standards-based XML solutions. Microsoft has collaborated with the EU's Interchange of Data between Administrations (IDA) in evaluating open document formats.

All government information systems need to be secure, protecting vital data and ensuring privacy. And they should also be 'future-proof', developed on the basis of solutions which allow for the future addition of new services.

#### Electronic Identity Solution (EID), Malta



The Government of Malta has deployed a central Electronic Identity (EID) Solution so citizens and businesses can identify themselves to electronically access services from across government. Active Directory, a central component of Microsoft Windows 2003, provides the central repository and single log-on capability required to conduct transactions securely without compromising convenience. By ensuring confidentiality and authenticity of data, the EID has become the "cornerstone of e-government" and is building public confidence and facilitating the take-up of online public services in Malta.

#### National Electronic System, Romania

As an EU candidate country, the Romanian Government set an ambitious programme of reform to develop a centralised point of contact for government services. While many Romanian state administration bodies and regional authorities had already created websites, each was developed on differing applications. Microsoft Romania and its local partner SoftWin won a competitive bid launched by the Romanian Ministry for ICT (MCTI) to develop a gateway. They used the .NET Framework to meet demands of user-friendliness, adaptability for future development and security. E-guvernare.ro is now available 24 hours a day, 7 days a week, enabling Romanian citizens and businesses access to public information and documents from any location and through any device offering online access. The Gateway received a 'best content' award at the World Summit on the Information Society held in Geneva, 10-12 December 2003. @www.e-guvernare.ro

#### eLearning



eLearning underpins the realisation of Europe's Lisbon goals to lay the foundations for long-term competitiveness and to equip everyone in society to participate and contribute to a dynamic and growing economy.

The virtual classroom precedes the virtual office, familiarising students at an early age with the demands of the online workplace. And by enabling new, innovative approaches to education and training, eLearning encourages lifelong learning to help people re-enter the workforce or start new businesses by acquiring new skills.

While connectivity to ICT infrastructure is rising in the education and training sector, there is still a need to ensure that eLearning opportunities are equally available across geographic boundaries and societal sectors.

#### ICT in the classroom

Integrating the use of information technologies in education and training curricula means knowing how to make best use of the new technologies. For educational establishments with IT connectivity, teacher training, and re-training, is often a necessary step.

With many schools and educational establishments lacking the technical and financial resources to participate in the eLearning revolution, this means a focus on cost-effective ICT solutions. Microsoft has a long-standing commitment to working with Education Ministries and learning establishments to help equip them for the future, including initiatives to:

- connect educators through our Innovative Teachers portals enabling best practice and content sharing
- develop students' IT skills and delivering recognised certification through our IT Academy programme which allows educational establishments to offer IT industry-recognised qualifications
- expand access to IT through the provision of software grants and PC refurbishment programmes

To facilitate the spread of eLearning across the EU, Microsoft has developed localisable curriculum resource management tools based on open standards.

In 2003, our classroom support initiatives were gathered under the banner of the Microsoft Partners in Learning (PiL) Programme.

PiL is a five-year initiative with three key goals:

- To empower schools to significantly raise the level of ICT literacy amongst their staff
- To support teachers and schools in developing an internal culture of innovation
- To work with schools in preparing students for the digital workplace

At Microsoft, we are working with governments, educational establishments and NGOs to help ensure that IT skills training is developed broadly, and the benefits of the ICT revolution open to all. Global in scope, but local in implementation, Partners in Learning works with national governments, educators and partners to ensure programme components adapt to local educational needs and challenges. Partners in Learning is already being implemented in partnership with many European Education Ministries, including those in Austria, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Lithuania, Norway, Poland, Portugal, Romania, Slovakia, Spain and Sweden.



education, providing teachers with content they could use in their teaching activities. They turned to the Learning Object Content Management Server (LCMS); a database of Learning Objects (text paragraph, an image or video clip) which teachers can use in their lessons. They will also be able to create and add their own content. The application was designed to be easily localised using the internationalisation features within Microsoft software, and Microsoft provided consulting services and assistance to make the system a reality. Other components include Microsoft's Learning Gateway and Class Server, both of which are characterised by ease of use, including by those without a technical background.

#### Classroom 2000, Northern Ireland, UK



In Northern Ireland, the Department of Education's objective to introduce eLearning required a solution that would improve access to educational resources through the use of technology and the Internet. Microsoft and HP are connecting the largest number of pupils, teachers and administrators in the world under a €107 million, ten-year initiative that will enable every child from primary school through university to have an email address and to access virtual classrooms. The C2K programme will increase connectivity, access and standardisation of learning tools for all 350,000 teachers, pupils and administrators in 1,200 schools, colleges and universities. To complement this and ensure long-term uptake, there is now a national Schools Technology Innovation Centre and Microsoft has developed an Innovative Teachers Programme to encourage recognition of the achievements of pioneering teachers.

#### Marte: eLearning in Sardinia, Italy



The Regional Government of Sardinia required an online educational solution which could be deployed across schools in the regions. The Government is now working with HP to create dedicated intranet and multimedia courses using Microsoft's Learning Gateway for 550 middle and secondary schools. The initiative was launched with a particular emphasis on assisting in the integration of disabled students and providing highly skilled schooling to areas where specialist teaching and resources are unavailable or limited. The initiative, called Marte (Moduli di Apprendimento su Rete Tecno Educativa), will also include the installation of 8,000 workstations.

#### ICT in the Community

eLearning needs to look beyond the classroom setting to lifelong learning, enabling people to re-skill and retrain throughout their working lives, upgrading their skills in a specific area or learning new skills to give them access to new job opportunities, improving their employability and overall quality of life. Lifelong learning calls for partnership for ensuring IT access and skills training is brought to the broader community.

Microsoft Unlimited Potential (UP) is a global programme that focuses on improving lifelong learning by providing technology skills to people through community-based organisations. Microsoft provides resources to launch or sustain IT skills training programmes, including hiring and training technology instructors and expanding course offerings to reach a broader base of community members. Microsoft has also developed curricula that emphasise realworld technology applications which will be available in multiple languages. The programme works collaboratively with Microsoft's Education Solutions Group to provide a 'connected learning community' with a holistic, sustainable and forward looking approach.

The focus of UP projects is as varied as the needs of each community, and includes projects to support IT learning for children, unemployed youth, the homeless, people with disabilities, women, entrepreneurs, elderly people, and refugees. Today in the Europe, Middle East and Africa (EMEA) region we are supporting over 87 projects in 45 countries, involving over 130 partners and over 300 CTLCs.

As part of our commitment to digital inclusion, the Microsoft Authorised Refurbisher (MAR) programme was launched to facilitate access and lower the environmental footprint across the value chain. MAR enables authorised PC refurbishers in 153 countries to re-install Microsoft operating systems, with only a very low administrative fee, into donated pre-used PCs destined for schools, charities, non-profit organisations and community centres. MAR also responds to the growing need to facilitate the extension of IT products' lifecycle, which is part of our wider environmental responsibility.

## Foundation of Thracian Art and Tradition, Greece



Thrace is a remote area of Greece with critical historical and cultural importance. The community suffers from severe poverty resulting in an exodus of the younger population. The Foundation for Thracian Art and Tradition was created in 1998 to study and promote the cultural heritage of Thrace, as well as to educate local youth in the areas of art, culture and use of technology. The Foundation operates a Centre for the Study of Thracian Literary Tradition which offers local residents the opportunity to use information technology and the Internet to develop new skills. Microsoft provides IT training courses for the local population. By participating in those courses young users will be able to gain much needed skills to benefit their future studies and careers. Free training is also being provided to the entire community.

#### The Institute of Public Administration and European Integration, Bulgaria

In Bulgaria, government reform has meant significant staff reductions in various departments. While these changes are meant to bring about positive results from an administrative standpoint, balancing those reforms with the economic situation, in particular a dramatic unemployment problem, has been a challenge. In response to this, the Bulgarian government has developed the Institute of Public Administration and European Integration (IPAEI), an organisation designed to help laid off employees. Using software donated by Microsoft as well as the knowledge infrastructure supported by Microsoft educators, the organisation provides workers with training in the use of ICT to offer them new skills and the chance to re-enter society with greater employability. As a result of the partnership, the Bulgarian government is able to balance the goals of reform with economic and societal needs.

#### eHealth



Healthcare has always demanded the best technology, and has pushed the boundaries in terms of service expectation. Information technology is now beginning to occupy a central position in the treatment of patients, akin to that of clinician and treatment. It has moved beyond a tool for basic functionality, and now has the potential to integrate care from across the healthcare applications.

At Microsoft, we have been working in partnership with governments and healthcare providers from across Europe to define healthcare needs and to develop tailored healthcare solutions.

#### Efficiency, transparency and interoperability

One of the key developments in healthcare computing has been the establishment of electronic patient records. These have the dual purpose of providing faster, more accurate information for clinicians as well as facilitating greater patient information. This means clinicians can make more informed diagnosis and patients can have a fuller picture of the treatment process.

Healthcare computing is often complicated by the multitude of non-compatible information systems, many of which are based on legacy mainframe systems. At Microsoft, we have been working with hospitals and healthcare organisations to help them migrate towards the optimised solution.

Whether in relation to patient records or in terms of basic infrastructure, hospitals and care professionals need to know that capacity will not be lost, and that it will actually be improved upon with the new, tailored solution.

#### Privacy and security

The application of patient records and the paradigm shift towards the broader use of technology is reliant upon one fundamental tenet – patient trust. Patients need to have the reassurance that personal medical records can only be accessed by the appropriate clinicians. Microsoft is actively engaged in research to further define Public Key Infrastructure (PKI) needs in this area.

#### Wrightington, Wigan and Leigh NHS Trust, UK



To meet the UK Government eHealth requirements, Wrightington, Wigan and Leigh NHS Trust needed to move towards a system of electronic patient records. Selecting the Microsoft .NET Framework, and implementing Case Notes, a Web-based system from Microsoft partner CSW, to provide a single view of patients, the Trust is now able to build new clinical applications quickly to improve patient care, reduce costs and complexity, and increase data quality and speed of access.

# Ingolstadt Hospital, Germany

Ingolstadt Hospital in Bavaria receives 25,000 emergency patient admissions each year, with up to 20 people concurrently receiving care in the emergency ward. The Hospital needed to move from its paper-based admissions system to increase efficiency. Employing a Microsoft Office-based solution deployed on Tablet PCs, Ingolstadt Hospital is saving 15 minutes each time it admits a patient, representing 6,000 hours annually that the staff can devote to providing care instead of handling documentation.

#### Creating a dynamic eBusiness environment



Continued innovation in information technology is dependent upon partnership and understanding between industry and government. The role of both players should not be underestimated – government has a crucial role as regulator, partner and customer of the IT industry.

Information technology is reliant upon new ideas and the rewards that stem from intellectual endeavour. This, in turn, requires a legislative framework that supports intellectual property rights.

Consumers and companies alike also need a legislative bearing from government in respect to the development of e-commerce. Support for e-commerce is sometimes taken for granted, but often legal frameworks fail to keep pace with rapidly evolving developments in technology.

#### Developing Small and Medium sized Enterprises across Europe

Small and Medium-sized Enterprises (SMEs) play a major role in Europe's business economy, accounting for approximately two-thirds of employment. For Microsoft, SMEs are a focal point for our activity in Europe, not only as a customer, but also as a partner.

Three things are required to stimulate a healthy IT ecosystem:

- venture capital to nurture innovative new SMEs
- IT skills training to help SMEs integrate technology effectively into their business operations
- access to scalable and cost-effective IT solutions for SMEs.

Microsoft's partner ecosystem, encompassing independent software vendors and developers, makes a net contribution of €8 for every €1 that is spent on Microsoft products in the European economy. Companies that have built their businesses on sales or development of the Microsoft technology platform employ over 1.6 million people in Europe alone.

## Information Society Support Office (ISSO), Spain



Microsoft Spain has joined a consortium of leading companies to offer a full suite of services to the small business community that will help them integrate into the information society. BBVA (Spain's number one small business bank), Telefonica, the Association of Spanish Chambers of Commerce, HP, and Microsoft have come together to provide a complete small business package, from IT solutions to financing and advice and support. All services provided by Microsoft go through our partner network in Spain, many of whom are small businesses themselves. This Public Private Partnership was welcomed by the Spanish Science and Technology Ministry as a preferred Industry Speaker for their Information Society plan for SMEs.

#### The British Chambers of Commerce, UK



With over 135,000 members, the British Chamber of Commerce is a powerful conduit to help educate and support small businesses on the benefits of technology. The aim of a three-year partnership with Microsoft is to provide small businesses with a clearer understanding of how technology can support the busy owner-manager. To help the members access this understanding and partners who can assist them, there is an ongoing programme of events and support items, including the BCC Technology Made Simple Guides and the Small Business Centre. @www.bcentral.co.uk Microsoft has a range of services to help small businesses set-up as Microsoft partners or to implement technology that can help them make their businesses more efficient and grow faster.

- Microsoft Business Solutions offers business applications and services designed to help companies become more connected with customers, employees, partners and suppliers. More than 3,600 independent local partners in EMEA are able to customize, implement and support Microsoft Business Solutions applications, whilst providing a thorough understanding of the local business environment and knowledge of specific industries.
- The Microsoft Small Business Centre website is a central hub of information that supports many small business markets in Europe and across the world. It provides tailored business information and advice on how to run a business more effectively, customer support options and information about Microsoft and third parties' products and solutions.

#### SME Vendor Forum, Europe



Microsoft joined the European SME Vendor Forum which unites American Express, EUROCHAMBERS, HP, Intel, Reed Business, Symantec and Vodafone in the common objective of creating simple and comprehensive business solutions that meet the needs of SME customers throughout Europe. Members of the SME Forum are dedicating money and resources to helping SMEs gain a competitive advantage in the marketplace. At the same time, they are partnering to become more efficient and effective in bringing combined solutions to market. The Forum's goal is to provide SMEs with access to integrated, simplified and packaged IT solutions that cover the whole range of business needs from hardware and software to services and financing. To create these solutions, the Forum is focusing on the co-development of go-tomarket strategies and programmes. Areas of co-operating fall under three categories:

- Closer industry alliances and working arrangements
- Managing the impact of data, image and voice convergence on SME customers and channel partners
- Increased financial services to better serve the SME customers

#### **Broadband adoption**



Access to broadband Internet connections is a prerequisite for the public up-take of online services and content, and is the basis for a successful information society. Europe as well as the US lag behind Korea and Japan, where broadband is far faster and cheaper thanks to focused national policy.

#### Developing open standards

Microsoft is actively working with European standards bodies to develop the next generation of systems that will get broadband to European citizens at an affordable cost, and will enable a variety of eGovernment, eHealth and eLearning services to be received on Digital Set Top Boxes and Mobile Phones, as well as via the PC.

The European Telecommunications Standards Institute (ETSI), European Information Systems, Communications Technologies and Consumer Electronics Association (EICTA), Digital Video Broadcasting project (DVB), Third Generation Partnership Project (3GPP), Open Mobile Alliance (OMA) and the World Forum for Digital Audio Broadcasting (WORLDDAB) are just some of the bodies in which we actively participate.

## Driving the development of alternative broadband platforms

Adoption of broadband cable and DSL is increasing in Europe, but many other access channels need to be explored to make broadband truly ubiquitous. Microsoft is working in its MSR-Cambridge facility to consider new uses for digital radio, digital TV and mobile networks. These networks are being modelled as alternative vehicles for the distribution of 'eContent' to the citizens of Europe.

We are working with industry partners towards the goal of making access to every service and application possible from any device, anywhere, anytime.

For European citizens to have broadband connectivity that is affordable, providing access to quality content, applications and multimedia services for all regardless of location or device, we need strong government and private sector focus.

#### Security and Privacy



The great strength of the Internet is its ubiquity, but a weakness is its security. This is a reflection of the origins of the Internet. Because it was not originally conceived for business and private communication, its resilience did not extend to protecting users against computer viruses. Increasingly, however, businesses, governments, and citizens rely on information systems to raise productivity, deliver services, communicate, and access information and entertainment.

As a leader in the computing industry, Microsoft recognises that it has a responsibility to enable everybody to work, communicate and transact securely. To that end, Microsoft is focused on delivering improved security across all of its platforms and products.

However security alone is not enough. Users want privacy, which means the right to be left alone and the right to be in control of their personal data.

## Micosoft's security approach in the EU context

The European Union has had an active Internet security policy since the mid 1990s. The initial debate was around encryption and digital signatures, with many governments fearing the wide use of encryption could endanger the effectiveness of lawful interception. As a result, many countries regulated the legal recognition of digital signatures and Public Key Infrastructure (PKI) based authentication schemes.

The situation has evolved, with the EU adopting a more active security policy. A Directive harmonising the legal recognition of electronic signatures introduced the concept of Advanced and Qualified Electronic Signatures. In response, Microsoft is producing a Tutorial which gives guidance to architects and developers on how to implement the European requirements into the Windows Platform. Microsoft has also been active in supporting the development of Electronic Signals Standards Initiative (ESSI) standards in this field.

#### **OTP Pension Fund,** Hungary

OTP Pension Fund, the largest Pension Fund in Hungary, uses the Signed Document eXpert (SDX) digital signature handling product family from local Microsoft partner E-Group for its online declarations. In addition to increasing security, the transmission architecture and the processing workflow application enables OTP Pension Fund to speed up form processing, save working time, reduce paper usage and postal costs. SDX, the secure document transmission architecture (TransForm) and workflow was built on the latest Microsoft technology. SDX is fully compliant with EU Directive on electronic signatures. It was the first to receive certification as a 'qualified electronic signature handling application' in Hungary.

Security-related research has also been of increasing importance since the launch of the 5th Framework Programme. The European Microsoft Innovation Centre in Aachen (Germany) has participated in several projects, and Microsoft also supports university research in security-related areas such as threat modelling or the development of security curricula.

The European Council has issued several policy statements outlining the directions all Member States should take in computer security, and the eEurope initiative has also been used to push awareness raising, creation of computer emergency response systems, recognition of common criteria, and stimulation of electronic signatures. The European Network and Information Security Agency (ENISA) is mandated to co-ordinate European security policy and act as a security advisor for EU institutions.

Security is Microsoft's number one priority. All new products and service packs are now released following a rigorous security process to significantly reduce the number of vulnerabilities. Microsoft has also been improving its software update process step by step and through various means; for instance through a regular patch cycle, improved patch quality, reduced patch sizes. The company is also increasingly providing tools and guidance to ensure that users are informed. The proliferation of computer viruses and worms in recent years has been the key reason why computer users do not trust information technology in the same way as other essential services. Whether working directly with customers through our Protect your PC campaign, or with industry partners in the Virus Information Alliance, our focus is always building security software and services.

We have invested heavily in making Windows XP a safer product. Service Pack 2 for XP is another step towards our vision of making computing trustworthy. This release is predominantly about security and will protect users better against malicious Web sites, dangerous email attachments and other common Internet based attacks.

We are also working with law enforcement agencies on a global basis to deter hackers from software sabotage. An Anti-Virus Rewards Program offers rewards for information leading to the arrest and conviction of those responsible for unleashing viruses and worms.

#### Protecting privacy

Privacy is one of the key concerns of customers, industry and government across Europe. In respect of issues of consent, access, security and enforcement, data integrity and onward transfer, all parties concerned need to know that personal information is being used appropriately.

This not only requires the development of new technology, but it also necessitates working with industry and government to determine ongoing standards development and implementation.

Unsolicited email, or spam, is a privacy issue of international and cross-industry concern. As an ISP and provider of email, as a builder of enterprise-level email clients and as a commercial marketer, Microsoft is fully aware of the affect of spam on consumers and businesses worldwide and is fully committed to finding new and more efficient ways to combat its growth. MSN already blocks more than 2.5 billion spam emails per day, using a variety of tools and services. Since 2003, we have been working with Yahoo and AOL to develop platform-neutral technical solutions to protect consumers and to eliminate the facility to create fraudulent email accounts in bulk.

Microsoft works with national governments to support the implementation of EU rules on Electronic Communications Data Protection, which stipulate that commercial emails may only be sent to users who have given their consent. We also collaborate with law enforcement agencies across Europe, and internationally, to identify and take action against persistent spammers.

#### The protection of minors

A particular concern is the potential for 'spammers' to target less sophisticated email users, such as children. This is not the only threat to children posed by the abuse of information technology, and Microsoft fully endorses EU policy to tackle illegal and harmful content on the internet.

We have participated in the EU Safer Internet Programme and support the follow-up programme. We are working with law enforcement authorities, governments and non-governmental organisations at national and international level to help address the broader issues surrounding the protection of minors online.

Consumer confidence and safety are prerequisites for growing and sustaining computer usage across Europe. It is a complex issue, and one that Microsoft will continue to pursue in order to alleviate citizens and customers concern and thereby ensure a safer computing experience for all.

Our involvement in the fight against spam goes beyond advancing technology solutions. We have committed to working alongside industry and government through technology, industry self-regulation, legislation and enforcement, as well as consumer education.

## Conclusion

At the mid-way point of the Lisbon agenda, there is broad agreement that faster progress is needed if Europe is to meet its goal of becoming, by 2010, 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth, with more and better jobs and greater social cohesion'.

Part of this responsibility lies with the public sector, in introducing and implementing the right legislative frameworks that encourages innovation and create better and more inclusive employment practices. Public sector responsibility also includes providing incentives for the regions and areas throughout the broader Europe, which risk being left behind in the competitive race.

Responsibility also lies with the private sector and, in this, the IT industry plays an important role. New technologies have become increasingly central to the way in which we live, work and communicate. They increase productivity, competitiveness and deliver a new means of interaction between governments, citizens and businesses.

The eEurope Action Plan lays out the areas in which the public and private sectors can and must work together to ensure the widespread availability of essential content and services delivered on a fast and secure platform. But eEurope goes beyond this, acting as the stimulus through which to leverage the potential of ICT in building the new Europe, familiarizing people with the online environment and driving new, modern working and learning practices.

Building on this stimulus and driving widespread uptake and acceptance of the new technologies relies on collaboration between the public and private sectors. It is through this collaboration that Europe will build and sustain the momentum to deliver the Lisbon 2010 goals.

At Microsoft we are fully committed to playing our part in ensuring that the real potential of ICT to act as a force for economic, social and politcal ends is fully realized. We are committed to continuing to act as IT partner and regulatory interlocutor with the EU and national governments and to working with partners across the broader European region to help ensure that this potential is open to all.

## **Further information**

To find out more about Microsoft in the EMEA region please visit - www.microsoft.com/emea

You might find these sites of specific interest: Microsoft EMEA Citizenship – www.microsoft.com/emea/citizenship Microsoft EMEA in Education – www.microsoft.com/emea/education Microsoft EMEA In The Community – www.microsoft.com/emea/inthecommunity

For global and local case studies, visit - www.microsoft.com/resources/casestudies

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