BRIDGING THE DIGITAL DIVIDE

GETTING IT RIGHT FOR ALL WORKERS

The speedy and efficient adoption of new technology has long been recognised as a driving force behind economic development. As advanced economies make the transition from being based predominantly on manufacturing to the provision of services, the use of information and communication technologies (ICT) becomes ever more important. This presents a significant challenge to Europe, its firms and its citizens: in order to promote sustainable development, all actors (government, business and citizens) must recognise the importance of improving their ability to take advantage of the opportunities afforded by ICT.

Individuals who fail to learn, adapt and update ICT skills risk exclusion from the labour market and society in general, particularly now that ICT skills are attaining the status of a 'basic skill'. The challenge of learning and improving ICT skills can be especially great to disadvantaged groups such as unemployed people, people with disabilities and migrants. Training efforts are not adapted to the needs of these groups, but are primarily focused on management and white-collar workers, leaving vulnerable groups excluded from improving their ICT skills. The result is a "digital divide" between those who have access and use ICT skills, and those who do not. In 2001, only 29.1% of the total workforce had ever had ICT training. 27.5 % of the men had received training compared to 31.1% of the women, 15.9% of the self-employed, 16.7% of manual workers, and as few as 13.7% of the unemployed. Yet 84% of workers who have had ICT training found that it made their job easier.[1]

One major problem in this respect is that employees are unaware of their skills and training needs and are not empowered to learn ICT and develop their careers; the potential of ICT-based self-assessment tools in this area remains largely unexplored. This also means that employers are unaware of what skills their workforce possesses, and how training could be used and developed to enhance staff and business development. A further consequence is that beneficial knowledge exchange, which could have been facilitated via ICT tools, does not take place.

Furthermore, employers are often unaware of how ICT could be used for forecasting business needs and for business development. Yet, as noted above, ICT is a powerful driver of growth and employment: a quarter of EU (European Union) GDP (Gross Domestic Product) growth and 40% of productivity growth are due to ICT. Differences in economic performance between industrialised countries are largely explained by the level of ICT investment, research, and use, and by the competitiveness of Information Society and media industries. If businesses do not use their full development potential in order to benefit from ICT they risk falling behind; the EU then risks not developing into a knowledge-based society and falling behind in world markets.

BUILDING A DYNAMIC AND KNOWLEDGE-BASED EUROPE

Is the EU to become the world's most dynamic and competitive knowledge-based economy by 2010? This target was set in March 2000 at the Lisbon European Council and requires action across a range of policy areas – the main actions are outlined below.

Successful integration of ICT into education and training systems is a main concern of EU leaders and a policy priority for eEurope 2005[2]. In launching the partnership for growth and jobs as a new start for the Lisbon strategy, the 2005 Spring European Council called knowledge and innovation the engines of sustainable growth - stating that it is essential to build a fully inclusive Information Society, based on the widespread use of ICT in public services, small and medium-sized enterprises (SMEs) and households. A key element of the renewed Lisbon partnership for growth and jobs, i2010 – European Information Society 2010 - lays out broad policy orientations, building towards an integrated approach to Information Society and audio-visual media policies in the EU. It will promote an open and competitive digital economy and emphasise ICT as a driver of inclusion and quality of life. To reach this goal, there are two main steps:

- First, to promote e-learning (learning enhanced by the use of the Internet and new multimedia technologies) and 'e-inclusion' so that a digital divide does not widen the

economic divide between those who have access to ICT and knowledge, and those who have not; and

- Second, to support ICT changes in the workplace (in production and work organisation) by supporting and encouraging, on the one hand, enterprises, particularly SMEs, to recognise the need to take up ICT on a wider scale, and on the other hand, the workforce to learn required ICT skills.

Recently, greater emphasis has also been put on allowing older Europeans to stay active longer and live independently. In June 2007, the EU adopted the European Action Plan for "Ageing Well in the Information Society", which will involve a new Joint European research programme raising the research investment on ICT targeted at improving the life of older people at home, in the workplace and in society in general.

The Employment Taskforce Report[3] also emphasised that the EU needs higher and more effective investment in human capital for the good of individual enterprises, society and the economy. Knowledge-based and service-based economies require different skills than traditional industries: skills which constantly need updating in the face of more rapid technological change. Workers, if they are to access and progress in the labour market, need to accumulate and renew skills regularly. The productivity of enterprises is also dependent on building and maintaining a workforce that can adapt to change. Better responsiveness of EU economies to change requires a high degree of flexibility in labour markets, in particular through modern work organisation. The report urges Member States and social partners to promote the use of ICT and working time flexibility as tools to modernise work organisation.

NEW SOLUTIONS: GOOD PRACTICE FROM EQUAL

There is a wide range of practice within the EQUAL programme that supports the development of policy and practice in addressing the challenges outlined at the start of this paper. In general EQUAL Development Partnerships (DPs) have tackled discrimination by focusing on ICT; they have adopted three main approaches:

- Making the Information Society accessible to all by targeting the use of ICT and updating the ICT skills of disadvantaged groups.
- Using ICT-based tools for empowerment by validating existing skills and self-assessment of training needs.
- Introducing ICT into companies and adapting the work organisation and workforce accordingly.

The partnership approach has frequently been the most important innovation for the DPs' work. Transnational cooperation has also enabled the joint development solutions and approaches: where social partners, companies and individuals in different countries work together towards a common goal, there is great potential to bring about lasting change for the EQUAL target groups.

This paper continues by listing some pertinent examples from EQUAL, before concluding with some of the main policy messages arising.

Access for all in the Information Society

One Greek DP[4] focused on using innovative ICT solutions to enhance the abilities and work-related opportunities of **people with disabilities**, particularly those with physical impairments. Use was made of ICT including applications of e-learning and distance learning customised to the target group, customised ICT on-the-job training for the target group, and an on-line observatory that monitors the project and helps to disseminate outcomes. Thanks to this work, the DP created work opportunities for disabled people in environments that had previously been closed off to them.

The premise of an Irish DP[5] is that increased collaboration between lifelong learning providers will lead to an improved and more appropriate learning offer, which will provide benefits to learners across Clare County. By bringing providers together in a **strategic network**, the DP aimed to reduce duplication, increase quality and improve joint working. This strategic approach was especially important given that much of County Clare is rural. This provided the project with two crucial motivations: to reduce duplication and ensure that the limited resources available are used to maximum effect; and to develop innovative ICT-based tools to help address barriers presented by space and time. The main aspects of the DP can be summarised as:

- Innovative use of ICT; specifically the website, database and e-learning; and
- Empowerment through the bottom-up development of a lifelong learning strategy for the county.

A Swedish DP[6] addressed the problem of **entry qualifications** and focused on making an ICT learning system truly open to all so that all disadvantaged people can participate, and not only those who have entry qualifications. The DP delivered a system that focused on unemployed people and, in particular, on women refugees, immigrants, children and young people. Three learning centres were subsequently set up. Surveys of local SMEs were also conducted to find out what skills were required. This resulted in courses to train the targeted unemployed people in the skills that are demanded by the local labour market.

A German DP[7] targeted **women** who were excluded from active participation in the Information Society, and from access to jobs where ICT skills have become crucial. The DP developed and implemented a tailored training service that took account of the work lifecycle of the different groups of women. Special training was also provided to a wider support group, such as teachers, trainers and guidance staff to update their skills in supporting the process of labour market integration for this target group.

Access to the Information Society for **prisoners** via e-learning was developed by an Austrian[8] and British DP[9] (which used web simulation as there was no Internet access). Prisoners were offered training measures, which were carefully selected, evaluated and developed by a team of experts. The courses were carried out in small groups of people, and most of the time, participants studied on their own or through peer learning, using the training software. This approach was complemented with regular assistance by prison staff and regular contact with an instructor. The aim was to enable the prisoners to resolve problems on their own whilst not leaving them frustrated (by receiving too little assistance from a trainer). This **blended learning** approach with a weekly visit from a trained instructor proved very successful.

A Dutch DP[10] addressed the issue of ICT access by setting up, what was called, **"digirooms."** As 8% of the Dutch population accesses the Internet outside of their home, school or office, an essential element of the DP was to create public access points where citizens could use technology and where social professionals could offer personal assistance. The digiroom was developed in such a way as to minimise the barriers for potential users via: a location that is frequented by a wide range of community members (e.g. close to a shopping centre), an interior design that creates a welcoming and relaxed environment, the presence of social workers who are knowledgeable on ICT and its social applications (rather than only the technical side) and a user-friendly software programme. This software programme was developed by the DP specifically to help in the design of websites and web applications. The idea underpinning the programme was that once the user receives the free toolbox and learns how to use the instruments with the assistance of the social professionals, he/she has enhanced employment (as well as social) opportunities.

Self diagnostics and information exchange via ICT

A Belgian DP[11] addressed the problem that employers need to be convinced of the benefit of using **ICT-based self-assessment tools** if they are to have a significant impact. The DP in Belgium used ICT technology to give employees and employers a clear overview of their competences, skills and knowledge so that a training programme could then be tailored to focus on the areas lacking. The ICT tool could also be tailor-made for SMEs, combining a training needs analysis, business audit and planning tool. It was easily accessed either through the Internet or through a CD-Rom. The DP's success also came from cooperating with many stakeholders. The partners consisted of the sector training organisations for the automotive and electronic sectors, the two employer organisations for the sector, a Chamber of Commerce, the professional organisation for SMEs, and companies that were experienced in competence management. Although the sector-specific training organisations were sceptical at first, the partnership was able to demonstrate the quality of the project's ideas and convince them that there would be positive outcomes and that their involvement was crucial in identifying the professional competences most relevant to the sectors.

A Spanish DP[12] similarly provided an **on-line self-diagnosis** tool to assist with business and training decisions and processes aimed at small businesses run by disadvantaged people - including some female entrepreneurs. Businesses could access the tool on-line and for free. Other types of business support was provided to ensure that the tool was made available, that

companies knew how to make the best use of it and that the advice was tailored to the individual business depending on their needs and technological capacity.

A Finnish DP[13] facilitated the use of an **electronic portal** in an ICT consulting company, which linked workers - many of them older experienced workers - so that skills and expertise could be shared. The portal was a critical tool for assisting these workers to stay in touch with each other and to discuss problems and solutions relating to the requirements of a job or task. It was a particularly useful tool for those at risk of being excluded from the workforce because of age; it also helped to support workers between employment contracts.

Using ICT to enhance business development

What are the future ICT needs of a sector or a region? And what are the barriers for enterprises in adapting to new technologies? EQUAL has realised that the answers to these questions can be used to engage employers to take up ICT-solutions.

A Spanish DP[14] aimed to address the issues facing the Spanish **book industry** by providing ICT training to the workers of the industry and mapping the existing needs of the sector. The project required the coordination of the Spanish Ministry of Culture, Education and Sport, the four federations for book publishing, distribution, printing and selling, as well as the prestigious digital printing firm Fotomecanica Rafael. By acting together to assess the needs of their industry and implement online training, the partners realised that it had provided them with a platform to interact with each other on a more regular basis and made problem solving easier. ICT became not only a tool for enhanced competitiveness, but also for increased interaction and therefore improved business response to the constant changing environment.

A French DP[15] addressed problems with knowledge gaps and keeping up-to-date with new technology in the **digital broadcasting sector**. The DP focused on older workers, and used intergenerational learning to fill the knowledge gap. Another innovation was the development of an observatory of the sector. A number of resource centres were also to be established which would become centres for distance learning.

A Slovakian DP[16] promoted telework[17] as a form of work which could enable employees to combine family and work life in a way that would be beneficial for themselves and their employers. The general aim of the project organisers was to build up the employees' interest and trust through a telework platform that could be used for e-learning. To this end, the partners in the project held a series of workshops. The first round of workshops was informative: their first objective was to present telework and its advantages to both target groups; the second objective was to raise employers' interest in recruiting older workers.

A Spanish DP[18] targeted a geographical area with high industrial decline and therefore considerable unemployment. Within this area, the DP promoted the use of **champions** to advise small companies about business, training and other key issues. The champions had access to ICT tools to support their work and provide on-line training to the employees. Three different types of champion were being developed: social coordinator, professional career mediator and network manager. The task of the network manager focused on the introduction of ICT into small businesses. These managers had the responsibility of informing the self-employed about the advantages of introducing ICT into their company, particularly the benefits of ICT to becoming more competitive. Most of the businesses worked with outdated, traditional machinery and therefore were unfamiliar with new technology. The introduction of safer, modern machinery was therefore crucial, both from a skills and business competitiveness point of view, but also from a safety angle.

POLICY MESSAGES

This paper has outlined the significance of the challenge facing European societies and economies in terms of adopting new technology – specifically ICT. Unless actions are taken, not everyone will benefit from the opportunities provided by the development of a knowledge society. EQUAL provides messages for policy about how to support people, particularly people disadvantaged in the labour market, to become more familiar with ICT and develop the necessary skills.

Employers and Social partners are therefore invited to initiate and work together to:

- Recognise the importance of adopting and updating ICT in becoming and remaining economically competitive. And furthermore to recognise that this may present specific risks to already vulnerable people.
- Create programmes and methods aimed at making ICT accessible to all, particularly people facing discrimination in the labour market, by developing pedagogically sound, supported and tailored training that combines individual work with face-to-face support.
- Use and tailor ICT tools to support the self-assessment of employees' skills, create cost-effective tailor-made training – based on identified needs - which benefits both the employees and the business development.
- Realise the potential of ICT tools to be used to forecast sectoral and/or regional training needs and business development and use ICT to promote competitive development with workforce improvements and technical upgrading. The role these tools can play in matching the supply of skills with the demand for them ought to be explored.
- Explore the possibilities of setting up networks with mediators and/or regional champions to advise small companies about business, training and other key issues.
- Create ICT solutions as part of a holistic approach or strategy to achieve change or respond to change. For example DPs can promote and sustain their interventions through the use of e-learning if the ICT solution is part of a wider lifelong learning system.
- Recognise that ICT is not only an e-learning platform, but also an effective tool to bring actors and partners together in the creative stage enabling them to overcome traditional communication barriers between them, making problem solving easier.

[1] Information Society jobs – quality for change, Exploiting the Information Society's contribution to managing change and enhancing quality in employment, SEC(2002) 372, p 25-26.

[2] e-Europe 2005: is a continuation of the EU's promotion of the knowledge society established under e-Europe 2002, the main objectives of which were to develop a cheap, fast and secure Internet, stimulate investment in people and skills, and encourage the use of the Internet (Europe's Information Society Portal).

[3] 'Jobs, jobs, jobs-creating more employment in Europe, report of the Employment Taskforce chaired by Wim Kok, November 2003

[4] Proteas DP, Greece (link to the case study)

[5] Clare Life Long Learning Network DP, Ireland (link to the case study)

[6] Kista Open Academy DP, Sweden (link to the case study)

[7] Gender Mainstreaming in the Information Society DP, Germany

[8] Telelernen für HaftinsassInnen DP, Austria

[9] EDEN DP, UK-Great Britain

[10] My Portfolio Online DP, the Netherlands (link to the case study)

[11] Competence Euro-vision DP, Belgium

[12] Zurekin Sarean DP, Spain

[13] The Power of the Experienced DP, Finland (link to the case study)

[14] EN@E DP, Spain (link to the case study)

[15] Moderniser avec les séniors DP, France (link to the case study)

[16] ZRRHN DP, Slovakia (link to the case study)

[17] Telework is a form of organising and performing work, using information technology, in the context of an employment contract or relationship, where work, which could also be performed on the employer's premises is carried out away from these premises on a regular basis.

[18] ADVISE DP, Spain (link to the case study)