Final Report

e-Inclusion initiatives from private and non-profit European entities

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EXECUTIVE SUMMARY

Social innovation for meeting social needs has been on the European Commission’s agenda for some time. e-Inclusion policies are an important element in the contribution of the Information Society to the Lisbon goals of economic growth and social cohesion. Moreover, social innovation gains in relevance in the current economic and social crisis. Social cohesion is deteriorating as a result of raise unemployment and decrease in growth and taxation revenue.

e-Inclusion has is an increasingly important element for social cohesion and thus for the response to the crisis. ICT has deeply reshaped our lives over the past few years, but many have been left behind. There is still much to do to help the those people to join the digital world and promote ICT as a useful tool to for the majority of citizens to address their needs, e.g. in terms of jobs, social participation, or independent living.

The purpose of the present study is two-fold:

• To **identify and analyse good e-Inclusion practitices** driven by no-profit and private organisations;
• To derive **recommendations** for those involved in promoting e-Inclusion, including the European Commission and other authorities.

The study has used a combination of tools to perform the following tasks:

• Identification and selection of existing innovative e-Inclusion initiatives promoted by NGOs and/or private companies, mainly carried out through desk web research and a review of secondary sources available on the topic;
• Case study analysis of success factors, barriers and impact of the initiatives, carried out through telephone interviews and face-to-face meetings with practitioners across Europe;
• Design of recommendations on how to better align initiatives with policies at various level (including EU), which required analysis of gathered evidence and practitioners’ feedback collected through a consultation platform.

One key study finding is that NGOs and private companies play a key role in promoting e-Inclusion, both in terms of number of initiatives and achievements, especially from local initiatives that tend to better understand community needs and dynamics. Replicability of local initiatives at the national/regional level often maintains their originality while multiplying their impact.

In some of the successful partnerships NGOs are in charge of project implementation, whilst private companies fund and advise.

An emerging and promising category of e-Inclusion initiatives bring together practitioners from the same domain, in order to network, share experience and knowledge, and lobby government and private companies for reforms and intervention.
Other successful projects that integrate ICT in traditional social inclusion programmes, e.g. for work insertion, vocational training or school support. Other projects implement one-to-one personalized support, often involving large numbers of volunteers.

The study recommends a combination of actions from stakeholders, e.g. authorities at various levels including the EC, NGOs and private companies. In this context, initiatives from civil society often struggle to find adequate public support because of the novel and cross-cutting nature of e-Inclusion actions tends not to match traditional silos of public authorities.

In conclusion, this study aims at providing inspiration to all those involved in promoting e-Inclusion and thereby fight the prospect of a two-tier Information Society.
In Section 1 we recall the objective of the study, summarise the overall logic architecture of task and the work carried out so far.

Section 2 provides a cross analysis on the shortlisted case studies and looks at aspects that contribute to making an initiative successful.

Section 3 provides policy recommendations.

Finally, the Annex contains the selected case studies.

1. OBJECTIVE, ACTIVITIES CARRIED OUT AND WORKPLAN

1.1. Objective

This study provides evidence and analysis for the European Commission on support mechanisms and initiatives involving the private and third sectors in the field of e-Inclusion, as input for the idea of “European e-Inclusion Compact” suggested in a 2009 study on the "Vienna study" on e-Inclusion impact¹. To this purpose a wide ranging desk research overview of initiatives from the private and third sector was conducted, 12 cases were selected and studied in depth through telephone interviews and also several field trips. Besides the description and analysis of the cases, the field work was also aimed at gathering the views of practitioners on how to improve e-Inclusion policies in general and, in particular, the support actions managed by the European Commission. Indeed, while the primary goal of the study was about fact-finding and analysis, looking at success factors and barriers of private and third sector e-Inclusion initiatives. It also gathers views from e-Inclusion initiative managers on mechanisms for collaboration with the Commission. in "post i2010" EU policy.

1.2. The overall architecture of work

The figure overleaf summarises the overall structure of the work carried out, which comprised three strands:

1. Identify and select successful and innovative initiatives undertaken by private and non-profit European entities;
2. Document through field work the processes and approaches characterising the initiatives and gather the views of practitioners on success factors and barriers, and their feedback on possible ways of improving cooperating with national and European authorities;

3. Analyse the findings of the field work and the results of a web 2.0 consultation launched among the practitioners (after the field work) in view to provide recommendations to better align initiatives with policies and improve EU support to and co-ordination with the private and no-profit sectors.

Figure 1: Work Overall Architecture

Source: Authors' elaboration

Strand one

For the preliminary identification of candidates initiatives and the subsequent selection of the 12 to be further studies, the study used the following criteria:

- **Coverage of the different organisational** arrangements and implementation levels (i.e. to cover homogenously all four quadrants of the matrix below;
- **Coverage of regional areas** of the European Union;
- **The relevance** of the actors involved in the initiative and their contribution to the **goals of the European Commission**, view to align existing initiatives and to strengthen co-ordination across the European Union

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2 Please note that the little evidence available on outcomes and impacts achieved did not enable us to select the 12 initiatives using the criteria of impacts produced and documented.
On this basis a list of 36 candidate initiatives was drawn up through desk research$^3$ and interaction with experts and stakeholders$^4$. New cases were also identified by searching Corporate Social Responsibility or Corporate Citizenship programmes of important players in the ICT industry. All newly-identified cases that appeared to be relevant were included in the mailing list and were contacted to inform them about the Study and stimulate participation.

The identified 36 candidates' initiatives were plotted onto the matrix of Figure 2 and 12 initiatives were selected.

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$^3$ We carried out desk research to scout new initiatives in addition to those already available in our database, which include as sources: a) Solution4inclusion.org - an online source that collects UK e-Inclusion experiences, run by Tech4i2 professionals (www.solution4inclusion.org); b) ePractice.eu (www.epactice.eu); c) Booklet prepared for the Lisbon Ministerial Debate on e-Inclusion of December 2007 (http://ec.europa.eu/information_society/activities/e-Inclusion/docs/bepartofit/contributions_booklet.pdf); d) Cases from the European Broadband Project Award for 2007 (http://ec.europa.eu/information_society/events/broadband_gap_2007/exhibition/index_en.htm); and e) e-Inclusion Vienna Ministerial Conference awards short listed cases (http://www.e-inclusionawards.eu/)

$^4$ We contacted a list of Member States' representatives and other pre-existing contacts with e-mails containing a presentation of the Study and its objectives. Recipients were kindly asked to signal any relevant e-Inclusion initiative involving private companies and/or no-profit organisations towards the achievement of e-Inclusion goals. Recipients were also invited to forward the message to anyone who might be willing to contribute to the Study.
Strand two

A list of contact details\(^5\) was built for all the initiatives selected for in depth study. E-mails were sent out to representatives of all the initiatives As not all practitioners from the selected initiatives did not wished to contribute, other cases were drawn from the full list of 36 cases and new initiatives were scouted to complete the shortlist. Table 1: list of initiatives available for interviews and field trips

<table>
<thead>
<tr>
<th>INITIATIVE ORGANISATION</th>
<th>TRIP/INTERVIEW</th>
<th>COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Literacy Basics for a Lithuanian E-citizen Association Langas I Ateiti</td>
<td>I (T)</td>
<td>LT</td>
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<tr>
<td>Reasonable Adjustments Scheme Barclay Bank</td>
<td>T</td>
<td>UK</td>
</tr>
<tr>
<td>Wheeltop project BT + Scope</td>
<td>T</td>
<td>UK</td>
</tr>
<tr>
<td>Business Task Force on Accessible Technology Employers’ Forum on Disability</td>
<td>T</td>
<td>UK</td>
</tr>
<tr>
<td>Digital Opportunity Program for Senior eBay</td>
<td>T</td>
<td>EU</td>
</tr>
<tr>
<td>Barrierefrei ECDL</td>
<td>I</td>
<td>AU, IT</td>
</tr>
<tr>
<td>Click on IT, granma! Ezüstnet Association</td>
<td>T</td>
<td>HU</td>
</tr>
<tr>
<td>Liberated Learning IBM</td>
<td>T+I</td>
<td>IT, UK, ES, US/CA</td>
</tr>
<tr>
<td>Online Grandparent - Grandchild IT Competition Inforum</td>
<td>T</td>
<td>HU</td>
</tr>
<tr>
<td>Log On, Learn + Computer Clubhouse Intel</td>
<td>T</td>
<td>IE</td>
</tr>
<tr>
<td>MoLeNET Learning and Skills Network</td>
<td>T</td>
<td>UK</td>
</tr>
<tr>
<td>Education with TP’s Internet + Internet Republic Project Orange</td>
<td>I</td>
<td>FR</td>
</tr>
<tr>
<td>Login Initiative WIFI Village</td>
<td>T</td>
<td>HU</td>
</tr>
<tr>
<td>Virtual Bus Virtual IT</td>
<td>I</td>
<td>CY</td>
</tr>
<tr>
<td>Mode 83 network Mode 83</td>
<td>I</td>
<td>France</td>
</tr>
<tr>
<td>On Road Media On Road Media</td>
<td>I</td>
<td>UK</td>
</tr>
<tr>
<td>Social Innovation Camp Social Innovation Camp</td>
<td>I</td>
<td>UK</td>
</tr>
<tr>
<td>Unlimited Potential Microsoft</td>
<td>I</td>
<td>EU</td>
</tr>
<tr>
<td>Telecentre.org Telecentre</td>
<td>I</td>
<td>UK</td>
</tr>
</tbody>
</table>

Source: Authors’ elaboration

The table above provides an account of the work carried out either through field trips (5 respectively in England, Ireland, two in Italy, and Hungary) or through a short preliminary questionnaire followed by phone interviews.

The 12 finally short-listed initiatives were the following:

\(^5\) These came from a number of sources, including the EC Project Officer, Tech4i2’s contacts and desk research
## SHORTLISTED CASE STUDIES

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays: Reasonable Adjustments Scheme</td>
<td>eAccessibility</td>
</tr>
<tr>
<td>BT + Scope: Wheeltop Project</td>
<td>eAccessibility</td>
</tr>
<tr>
<td>Employer’s Forum on Disability: Business Taskforce on Accessible Technology</td>
<td>Networking &amp; Advocacy</td>
</tr>
<tr>
<td>Ezüstnet: Click on IT, Granma!</td>
<td>Basic digital literacy</td>
</tr>
<tr>
<td>IBM: Liberated Learning Consortium</td>
<td>eAccessibility</td>
</tr>
<tr>
<td>Inforum: Online Grandparent-Grandchild IT Competition</td>
<td>Basic digital literacy</td>
</tr>
<tr>
<td>Intel (2 cases): Computer Clubhouse + Log On, Learn</td>
<td>Learning through ICT</td>
</tr>
<tr>
<td>Internet Terjesztéseert Alapítvány (ITA): WiFi Village</td>
<td>Community building</td>
</tr>
</tbody>
</table>
Learning and Skills Network: MoLeNET

Mode 83: Networking & Advocacy

Virtual IT + University of Nicosia: Virtual Bus

These cases were edited and their final version is included in Annex I to this report. Each initiative is described around a few key elements:

- People interviewed and their role in the initiative;
- Brief introduction on the role of each of the organisations involved and on the key objectives of the initiative;
- Description of the implementation approaches and self-reported results;
- Funding of the project;
- Success factors;
- Barriers;
- Policy suggestions for the European Commission.

**Strand three**

The last step of the study, to a large extent resulting in Section 2 and Section 3 of this report, entailed both an additional interaction with the interviewed practitioners and an analytical dimension. Additional interaction included:

- **Reviewing and finalising** the shortlisted case studies with feedback from and proofreading by the interviewees;
- **Launching and maintaining the consultation** platform: this was set up at the web address [http://tech4i2.ideascale.com/](http://tech4i2.ideascale.com/) and was designed to gather the practitioners’ view on what can be done to improve the effectiveness of e-Inclusion initiatives promoted by the private and third sector, notably through and co-operation with the European Commission.

The analytical activity consisted in a comparative re-reading and analysis of the various case studies in order to extract key findings (see **Section 2** of this report) and to derive from them a revised set of policy recommendations (see **Section 3** of this report).

*Source: Authors’ elaboration*
2. CROSS ANALYSIS AND MAIN FINDINGS

Fourteen cases do not for any generalisation or statistical inference; nevertheless they are a good basis for some comparative considerations.

2.1. Revised conceptualisation

The conceptual matrix in Figure 3 below was finalised after the completion of the data gathering and analysis on the selected 13 cases (they were actually 14, but two projects belong to the same programme).

Figure 3: revised Conceptualisation Map

Source: authors’ elaboration

It is worth noting that at the end of this work, the empirical evidence led to introduce an additional aspect to the taxonomy of e-Inclusion initiatives developed by the referred "Vienna Study" on e-Inclusion impact, namely the networking and advocacy domain (represented by the red box in Figure 4 below). Both the initial desk research for the selection of the initiatives and the interviews showed the existence of a fairly large number of organisations that, besides managing initiatives in a specific domain, are also engaged in networking and advocacy activities on behalf of other practitioners involved in the field of e-Inclusion. This applies, though in different way, for both the third and private sector.
There are many organisations that invest resources in setting up networks of practitioners that operate on issues related to technology and people’s needs, in order to obtain know-how and exchange and benchmark experiences; at the same time, these organisations invest in lobbying local and national governments (or other stakeholders, including market players), and in supporting or recommending them on better meeting people’s needs. Examples in the third sector include Telecentre Europe, UK Online Centres, Employers’ Forum on Disability, Mode83, Inforum (all of them analysed in Annex). In the private sectors there are umbrella organisations such as Digital Europe (formerly known as EICTA), although their role is different as compared to those of the third sector. In the private sector they are more involved in public relations and lobbying with public authorities, and less in supporting cooperation and collaboration, as each large company has its own Corporate Responsibility Programmes, which do not usually cooperate with equivalent programmes from their competitors.

The existence of such type of advocacy and networking players is important for, as discussed later, they have been identified as relevant players to drive policy recommendations suggested by some of the interviewed practitioners.
2.2. Type of organisation and focus of initiatives

The fourteen cases were not selected at random but according to their representativity in terms of the types of organisations from third sector/private sector dimension involved. In this context, it appears that awareness is raising across both sectors on the significance of digital inclusion, as reflected by the initiatives that both private companies and NGOs have launched at various levels, either on their own or in partnership.

As far as the focus of initiatives is concerned, as was noted already also in the referred "Vienna study", some domains are less covered than others. In particular eHealth, Ageing Well at Home, Broadband (although Wheeltop Project may somewhat fall within this category), Employability, and Access to Welfare Benefits are not often covered in the full sample of about a 1000 initiatives from which we first drew the 34 shortlisted candidates and then the selected 14 cases. On the other hand, eAccessibility and assistive technologies attracts a remarkable high share of interest from organisations, both private and no-profit, together with basic digital literacy. The reason behind this seems to be that NGOs and private companies through their CSR schemes tend to operate in fields of intervention in which they have already built expertise and know-how, often in relation to some of the most sensitive groups of society: the elderly and the disabled; less commonly, women.

**Exemplificative extract**: NGO Scope has always been involved with helping the disabled. It is from their very experience and contact with disabled students that they found out about their need for accessible technologies. This is how the idea for the Wheeltop Project, developed in partnership with BT came about.

2.3. Partnerships: an ambivalent concept

In the report on the cases the reader will often find the word “partnership” and most of the cases involve some form of partnership. The study distinguishes “Full Partnership” from “Ancillary Partnerships”. The former meaning an initiative launched and managed by a set of different organisations on a comparable footing as regards funding and responsibility. The latter, instead, is about one clearly leading organisation relying on various forms of supporting/ancillary partners.

Interesting enough, only one case out of the selected 14 is a full partnership between two private entities.

**Exemplificative extract**: This is the case of the Virtual Bus – the Cypriot bus that promotes the use of ICT through a number of different initiatives brought to citizens around the island. This is promoted by Virtual IT and the private University of Nicosia, where the previous operates as the leader in terms of implementation (setting up the bus according to the initiative, co-designing activities with the client, etc.) and the latter offers its support for research activities (collecting statistics and feedback, elaborating data, writing reports, etc.). Together the two organisations design strategies for the Virtual Bus and lobby government for further support to e-Inclusion.
This is not surprising in light of the consideration made above about private companies working separately through their own CSR as testified by the extract below.

**Exemplificative extract:** Laszlo Szucs, Media Contact Manager of UPC Broadband (the European division of Liberty Global, Inc.) the main financial sponsor of the Hungarian initiative *Click on it Granma*, was sceptical about the possibility of coordinating the CSR programmes of different private players to reach synergies since each company wants to have its brand and is not likely to share/coordinate with competitors. He quoted the example of a Telecom operator in Hungary that launched its own initiative exactly duplicating *Click on it Granma* (so far unable to secure any form of support from this large player) instead of collaborating with it.

Furthermore, only one case involves a **full partnership** between private and no-profit entities.

**Exemplificative extract:** This is the case of *Wheeltop Project* support by BT and Scope, respectively a UK telecommunication company and an NGO specialised in dealing with disability. The two organisations perfectly complement each other; Scope deals with understanding users’ needs and with designing the appropriate equipment, while BT is mainly the financing entity, offering consulting services where needed.

On the other hand, some form of **ancillary partnerships** is widely spread, and it is not uncommon to involve public organisations in the rollout of the initiatives (this was observed in one third of the analysed cases). Although in some cases this becomes a barrier due to lack of awareness and skills especially among local level governmental bodies

**Exemplificative extract:** *Village Wifi*, designed and implemented by no-profit organisation ITA in Hungary, requires that villages apply to the scheme through their local municipality. This is mainly done to assess the village’s motivation and ability to mobilise different stakeholders for the initiative. Yet, in their roll out they reached few villages precisely because of inactivity on the side of the local municipalities

**Exemplificative extract:** IBM’s partnership with universities around the world through the *Liberated Learning Consortium* is also a good illustration of the fundamental role of public sector institutions in the projects’ rollout. IBM has had a paramount role in the development of the speech-recognition technology, in funding research, in establishing collaboration with universities and in providing them with technical support. However, universities have been vital for testing the technology and for understanding its impact on users and ‘hidden’ beneficiaries.

Interviewees have almost always mentioned partnerships as a paramount element for the successful outcome of a project, yet the preponderance of ancillary over full partnerships seems to suggest also that strong leadership by one lead organisation is a relevant aspect of success within e-Inclusion partnerships.

It also worth pointing out that in one case (*WiFi Village*), those involved identified as one of the keys of their success the decision to outsource to paid suppliers the final activity on the ground, even if this was centrally managed and overseen. It is a clear and interesting example
of a distinction between a firm and strong steering and the rowing in line with the classical principles of New Public Management.

### 2.4. Funding

Apart from private sector cases, financial sustainability emerged as a big challenge and barrier for all third sector initiatives, as well as a source of risk of failure. This will be further addressed in the sections on barriers. In the third sector the main source of funding are:

- Sponsorship from private foundations;
- Voluntary financial contribution from members
- In kind work contribution (volunteers’)
- In kind software and hardware contributions (donation from ICT manufacturers)
- Funding from government;
- Funding from EU programmes;
- Fees charged for the services provided by the initiative (this is, however, a rare occurrence)

Private initiatives are generally funded by the lead organisation own CSR budget, although also private initiative search for funding to scale up their scope and reach (i.e. IBM Liberated Learning).

The funding aspect highlights a key argument in favour of fostering partnerships between organisations of different backgrounds: despite organisations’ extensive involvement and enthusiasm, funds are often the reason for the failure of the initiatives.

Applying for public funding has virtually always been mentioned as a factor for success by our interviewees. The main difficulties are identifying the right institutions, understanding the application process, dealing with the administrative burden; these issues will be addressed in the section on barriers.

**Exemplificative extract:** Our interview with Virtual IT’s manager who helped develop the Virtual Bus strongly highlighted the need for increased awareness on e-Inclusion within national public authorities.

### 2.5. Level of implementation

With regard to the level of implementation, there is a rather homogeneous distribution of national and local initiatives. Whereas it was not possible to establish a correlation between the focus of the initiative and its level of implementation due to the low number of case studies analysed, Networking and Advocacy initiatives tend to adopt a national focus. This is clearly intended to reach the highest possible number of members of the network, which often aims at experience exchange and mutual support, and to create a strong community of organisations that are able to lobby national governments and supra-national organisations on the issues of digital inclusion.
Exemplificative extract: This is the case of Employers’ Forum on Disability, a UK-based with members all across Europe, including major industry players. EFD has been lobbying governments on disability-related issues for decades and has recently established a Business Taskforce on Accessible Technology to raise awareness on technology-specific usability problems faced by disabled and non-disabled users.

2.6. Measurement capacities and self-reported impacts

Although the study has selected highly-motivated organisations with innovative e-Inclusion initiatives, practitioners’ awareness and capacities in the domain of evaluation and measurement are low, with the exception of some initiatives based in the UK. In this respect this study fully confirms the conclusion of the “Vienna Study” on e-Inclusion impact and points to the need to support and fund awareness raising and capacity building on impact measurement among e-Inclusion practitioners. Some practitioners fail to recognise the need for some measure of the impact their initiative has in terms of benefits to users, to make cost-benefit evaluations and to communicate results to other stakeholders (i.e. potential users or government). In some cases, the initiatives analysed provided data that could be used for measurement, but they were raw data not analysed or presented in an easily exploitable way.

When available, measurement information is mostly of qualitative nature, seldom quantitative, and almost never financial. Thus, it is probably of little value to compare the cases in terms of the impacts achieved. Nevertheless, as a very preliminary and tentative hypothesis, it appears that NGOs produce comparatively better results for the intermediate beneficiaries (e.g. professionals in schools and other fields) and final beneficiaries of the initiatives. This is despite the fact that NGOs’ initiatives tend to be smaller in size and have less funding, therefore reaching more limited numbers of people. The reason behind NGOs’ relative effectiveness may be connected with the organisations’ vast experience with end users, which allows them to gather extensive knowledge and first-hand information on user needs. However, interviews with the practitioners have also found that NGOs’ initiatives are especially effective if they can find the support of the private sector, e.g. through IT donations and rebates, sponsorship, etc.

Paragraph 2.8 is an attempt at illustrating the actual and potential impact that NGOs and private sector initiatives have had or may have.

2.7. Key success factors, main barriers, suggestions to policy

Key success factors, barriers, and policy suggestions are presented below as reported by the interviewed practitioners, within the constraints of the sample size and the diversity of initiatives. Policy suggestions will be further discussed in the next section.
Key Success Factors.

- Partnership/cooperation/local context (cited by 7/13);
- Focus on users’ needs/one-to-one approach (cited by 6/13)
- Leadership/experiences/skills of key personnel (cited by 5/13)
- Management and implementation mechanisms (cited by 4/13)
- Sharing of experiences/Networking (cited by 4/13)
- Capacity to influence government and/or ICT suppliers (cited by 4/13)
- Technical capacities/State of the art technical tools (cited by 3/13)
- Modularity/Scalability/Versatility (cited by 2/13)

Only in one case the fact that the initiative was based on evidence and on research was cited as a key success factor, and this is interesting since a few interviewees cited evidence and research support as either a barrier or a policy suggestions.

Table 2 Success Factors, Barriers, Policy Suggestions

<table>
<thead>
<tr>
<th></th>
<th>KEY SUCCESS FACTORS</th>
<th>BARRIERS</th>
<th>POLICY SUGGESTIONS</th>
</tr>
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</table>
| 1 | Leadership;        | Capacity to disseminate | Encourage involvement of ICT producers  
|   | Cooperation with suppliers |          | More public dissemination and awareness raising |
| 2 | Evidence based initiative  
|   | Influence on government policy  
|   | Shared learning across Europe  
|   | Partnership with manufacturers | Lack of technical skills in targeted intermediaries  
|   |                      | Volatile nature of government policies  
|   |                      | Technophobia | Skills for intermediaries  
|   |                      |          | Incentives for local agencies to pool budget;  
|   |                      |          | Better identify and quantify targets and promote education about them within society |
| 3 | Partners commitment | Financial sustainability | Promote education on the disabled within society  
|   |                      |          | Show eAccessibility is a business opportunity  
|   |                      |          | Monitor impact of legislation  
|   |                      |          | Encourage corporate social responsibility of ICT producers |
| 4 | Users tailored implementation  
|   | Management and implementation mechanisms | Financial sustainability  
|   |                      | Fragmentation of national support measures;  
|   |                      | Lack of cooperation among CSR programmes of different private companies | Best practices sharing and dissemination online but also through face to face interaction  
|   |                      |          | One single EU access point for funding to e-Inclusion |
| 5 | Multi-partners initiative  
|   | Distributed technical support;  
|   | Shared experience among partners | Adaptation and digital skills of targeted intermediaries  
|   |                      | Niche R&D where companies do not invest  
|   |                      | Lack of funding from national government  
|   |                      | EU funding scheme too rigid | More funding to research  
|   |                      |          | Support to piloting tests |

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<thead>
<tr>
<th>6</th>
<th>KEY SUCCESS FACTORS</th>
<th>BARRIERS</th>
<th>POLICY SUGGESTIONS</th>
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<tbody>
<tr>
<td>• Leadership/ experience of lead individuals</td>
<td>• Financial sustainability</td>
<td>• More EU funding and less administrative burden</td>
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<tr>
<td></td>
<td>• Fragmentation of national support measures</td>
<td>• EU horizontal task force on e-Inclusion</td>
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<tr>
<td></td>
<td></td>
<td>• e-Inclusion Committee in European Parliament</td>
<td></td>
</tr>
<tr>
<td>7a</td>
<td>• Design leading to viral growth</td>
<td>• Financial sustainability</td>
<td>• Leverage European Voluntary Service within e-Inclusion initiatives</td>
</tr>
<tr>
<td></td>
<td>• One-to-one training</td>
<td>• Difficult to export to other countries</td>
<td>• Awareness raising;</td>
</tr>
<tr>
<td></td>
<td>• Modularity and scalability</td>
<td></td>
<td>• One single point of contact at national and EU level</td>
</tr>
<tr>
<td>7b</td>
<td>• Embeddedness in local context thank to partnership</td>
<td>• Financial sustainability;</td>
<td>• IT skills to be recognised as a priority in educational policy</td>
</tr>
<tr>
<td></td>
<td>• Commitment of local volunteers;</td>
<td>• Lack of evaluation capacities</td>
<td>• Awareness raising;</td>
</tr>
<tr>
<td></td>
<td>• Being part of worldwide network</td>
<td></td>
<td>• Practices sharing;</td>
</tr>
<tr>
<td></td>
<td>• State of the art hardware and software</td>
<td></td>
<td>• Incentives to reduce costs of hardware and software for educational purposes</td>
</tr>
<tr>
<td>8</td>
<td>• Professional Management</td>
<td>• Lack of awareness and of willingness to cooperate by local governments in rural areas</td>
<td>• EU to place e-Inclusion in a clear policy box with one single access point for funding</td>
</tr>
<tr>
<td></td>
<td>• Lobbying with government</td>
<td>• Fragmentation of national support measures</td>
<td>and reduce administrative burden</td>
</tr>
<tr>
<td></td>
<td>• Implementation by outsourcing</td>
<td>• EU funding fragmented, rigid, not focussed enough on New Member States situation</td>
<td>• EU to remember that Hungary and other NMS still need support for basic access and skills</td>
</tr>
<tr>
<td></td>
<td>• Previous experience in private CSR programmes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>• Facilitation, Sharing, Engaging, Supporting</td>
<td>• Lack of interest from private companies to cooperate</td>
<td>• Increase awareness and dissemination of EU activities</td>
</tr>
<tr>
<td></td>
<td>• Support from research</td>
<td>• Long run financial sustainability</td>
<td>• More EU funding and less administrative burden;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• EU to push private companies to do more;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• EU to reduce administrative burden and provide one single access point for funding</td>
</tr>
<tr>
<td>10</td>
<td>• Direct engagement of the individual and personal valorisation</td>
<td>• Financial sustainability;</td>
<td>• Awareness raising among policy makers</td>
</tr>
<tr>
<td></td>
<td>• State of the art tools</td>
<td>• Little understanding of e-Inclusion at policy level and in funding mechanisms</td>
<td>• EU funding to be made simpler and more transparent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• European Funding a nightmare: non transparent and with much burden, creating liquidity problems to small organisations</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>• Partnership among SMEs and university</td>
<td>• Future financial sustainability</td>
<td>• Less bureaucracy for PPP</td>
</tr>
<tr>
<td></td>
<td>• Good management</td>
<td>• Lack of support from, and cooperation with, local authorities</td>
<td>• Government budget for e-Inclusion</td>
</tr>
</tbody>
</table>

Table 2: Success Factors, Barriers, Policy Suggestions Continued

<table>
<thead>
<tr>
<th>KEY SUCCESS FACTORS</th>
<th>BARRIERS</th>
<th>POLICY SUGGESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enthusiastic and committed people who are able to motivate others + “marketing” campaigns</td>
<td>• Changing political scenario</td>
<td>• Give more support to cross-sector umbrella organisations and use these as leverage</td>
</tr>
<tr>
<td>• Providing collateral tools alongside material for learners (i.e. assistance at telecentres, handouts, etc.)</td>
<td>• No cross-sector funding schemes</td>
<td></td>
</tr>
<tr>
<td>• Making sure that Telecentre practitioners are trained to help and are provided informative material</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

12: UK Online Centres and Telecentre Europe.

Barriers. Not surprisingly financial sustainability has been cited among the main barriers by 9 out of 13 interviewees.

Equally cited (10/13) is the unsystematic nature of policies and funding in the field of e-Inclusion at the national level, a problem that some of those interviewed related to volatility of government policy, others to fragmentation of support measures and funding sources, others to lack of awareness about e-Inclusion among policy makers in general or at local level, and others to lack of willingness to cooperate.

Fragmentation, excessive rigidity and imposed administrative burden, non-transparency were cited as barriers related to funding from the European Commission (3/13), although this was more mentioned under policy suggestions.

Also cited by 3/13 (all from the third sector) as a barrier is the lack of cooperation from the private sector.

Another barrier cited is the lack of skills and capacity of professional intermediaries, for instance in those initiatives aiming at reaching students through their teachers (2/13).

Finally, there are other barriers cited only by one interviewee including: lack of cooperation among private companies’ CSR programmes, lack of dissemination capacity among the e-Inclusion practitioners, lack of evidence and research support for either design of initiatives or for their evaluation, difficulty to scale initiatives internationally, persisting technophobia among intermediate and final users targeted.

Policy suggestions. suggestions for policy action at the EU level in some cases suffered from lack of knowledge of the EU context, namely the principle of subsidiarity, Commission structure and functions and feasibility to adopt changes within that framework. This may partly account for some of the implicit criticisms regarding Commission funding mechanisms.

Policy suggestions explicitly concerning the European Commission itself are ranked below by order of feasibility. Further elaboration provided on the policy suggestion by interviewees is in some cases included in footnotes for reasons of space.
First, increase support to awareness raising and dissemination activities among public authorities in the Member States on the significance of e-Inclusion was cited four times. In particular the need was expressed to raise awareness at institutional level by mainstreaming e-Inclusion programmes inside existing social inclusion policies. The same need was also voiced four times but with the whole society as a target (i.e. in one case this was formulated as ‘promote education on disabilities within society’).

Second, in two cases our interviewees suggested that the Commission should continue and step up its support to sharing of practices and experiences not only through online portals but also funding face-to-face meetings.

Third, four practitioners thought that the Commission should ‘stimulate’ ICT manufacturers to engage more in e-Inclusion initiatives. In one case the suggestion is ‘nail them to their social responsibility’ in another case ‘provide incentives to reduce costs of software and hardware for educational purposes’. Some practitioners from the third sector claim that ICT manufacturers are not doing enough to produce accessible and inclusive products and services, that as employers they should do more, and that they should increase donations in kind and financial support. A consideration must be made: since those interviewed were all proactive professionals and since some ICT big players do finance a lot of initiatives, there is probably need of more awareness and dissemination also on the side of such private players about their initiatives.

Third, as many as 11 times the object of suggestions were EU funding mechanisms, with the proposals ranging from more support to research and piloting test6, to establish one single contact point for all funding to e-Inclusion, to reduce rigidity and administrative burden and increase transparency. The excessive bureaucratic requirements of EU funding are perceived by some practitioners as lack of trust. Moreover, reducing bureaucracy (this applies both to the national and the EU level) is paramount to involve the private sector and especially SMEs. Such recurrent proposals can mean that EU funding mechanisms for e-Inclusion initiatives either are really a ‘nightmare’ as one puts it or there is little awareness and knowledge about how they function among e-Inclusion practitioners. In either case it appears that the Commission should do something about it, such as improve on communication and dissemination of funding mechanisms, since lack of information seems to have led potential beneficiaries to give up on applying for funding. In particular, jargon and highly-technical terminology have often represented a daunting barrier to access. It is also worth noting an Hungarian interviewee calling the Commission to focus its policy and funding also on the peculiarities of New Member States and continue to give importance to simple access and

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6 A few statement to illustrate this suggestion are reported here
“Provide more money to finance research projects with high potential and benefits for the wider community: the interest in widening this field of research goes beyond the industry’s market interest and actually represents a public interest to improve the social inclusion of many people”.

“A technology that is useful to improve accessibility, to enhance education and to increase social interaction cannot be left to become a business case”

“Action must be taken on a technology that has very high potential to respond to relevant public interests. Support private organisations to test their technology: this helps companies produce technology that is effectively inclusive and release pressure from the manufacturers to develop marketable products and services”.
basic skills, for these issues may be solved in EU-15 but are still a challenge in most of new EU-12 (the 10 of 2004 plus Bulgaria and Romania) Member States.

Fourth, in three cases it was suggested that e-Inclusion policies should be streamlined at the Commission level by creating ‘one policy box’ or by ‘establishing a horizontal e-Inclusion task force’ and also by creating an e-Inclusion Committee in the EU Parliament. It has also been suggested that the Commission establishes a Committee as a new channel and platform for NGOs to interact and cooperate directly with the Commission without having to go always through the national contact points.

Other policy suggestions not necessarily directed to the Commission only included those listed below (where more relevant elaboration was provided this is added):

- **Include digital skills in curricula and make them a priority in educational policies.** Push for the introduction of new technologies into the curriculum and as part of mainstream education policy: there is a need for the whole of the workforce to be comfortable with technology and have a sufficient level of competence. Push for the creation of curricula for people who design inclusive products and services;
- **Create evidence and support research for the design and evaluation of initiatives.** Collect statistics: there is lack of supportive quantitative evidence on a number of issues, i.e. related with disabilities; gathering such evidence will be vital to acknowledging people’s right to equipment and ensuring that the necessary sustainable funding and frameworks are in place to achieve this. Monitor the impact of policies and legislation;
- **Make the case of e-Inclusion as a business issue.** Push companies to position digitally excluded people as valued ‘customers’ of services, employees and stakeholders; this will encourage employers to make reasonable adjustments either in terms of providing them with the appropriate accessible technology or in terms of training them to become part of the information society. Engage in influencing the business culture: for instance through MBA graduates or by creating personal synergies with companies’ CEOs;
- **Provide incentives/ capacity to pool budget, skills, and experiences.** Help European organisations to build on their ability and willingness to share knowledge and experience; this will essential for players not to replicate mistakes; Provide guidance to local agencies on how to merge resources (both financial and human) to integrate high-tech assistive technology with the delivery of public services.

Finally, there is a very important and well-formulated policy suggestion that is worth treating separately from the others. As suggested by Ian Clifford from Telecentre Europe and UK Online Centre, the Commission should leverage the potential and favour the aggregation of Networking and Advocacy organisations:

- These organisations gather data and information at a central level on a myriad of local initiatives but need to be supported and guided by the Commission in this endeavour;
- The Commission could interact more easily with local level initiatives through these trusted aggregators than directly;
- The same applies for the private sector with their umbrella organisations.
2.8. **Initiatives’ impact: measurements and observations**

The study originally aimed at identifying innovative and impactful e-Inclusion case studies from the private and no-profit sector in order to capture the current situation in term of initiatives coming from these two sectors and to understand how the Commission could channel efforts, support practitioners and export experiences. However, with approval from the Commission, we were forced to modify the purpose of the research insofar as evidence of initiatives’ impact could not be observed *a priori* and case studies could not be identified and short-listed on the basis of their degree of impact. This is mostly because e-Inclusion initiatives tend to be promoted locally by small- or medium-sized organisations that often do not recognise the need to measure quantitative outcomes of their projects. It has also been observed that even when impacts are measured, seldom are these used to communicate the success of the initiative externally, including potential users. However, it is common for organisations to use data to track their own progress and/or to report success to financing entities.

Therefore, despite the progresses achieved by the study and despite the high level of analysis carried out on the 13 case studies chosen, it remains difficult to make generalisations and to provide quantitative evidence on impacts. Nevertheless, we attempt here to provide examples of good outcomes linked to the characteristics we have used throughout the study to analyse initiatives. More specifically, as shown in Table 3 below, the vertical axis indicates the aforementioned characteristics, whilst the horizontal axis provides an assessment of the degree of impact. Hereafter, a discussion for each topic is provided with examples from the case studies and their impact measurement exercises.

**Table 3: Summary of impacts**  
*Source: authors’ elaboration*

<table>
<thead>
<tr>
<th>IMPACT</th>
<th>+</th>
<th>++</th>
<th>+++</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of intervention</td>
<td>National/Regional</td>
<td>Local</td>
<td>Local but with many access points across the regional/national territory</td>
</tr>
<tr>
<td>Size of organisations involved</td>
<td>Small</td>
<td>Medium</td>
<td>Small with many branches scattered across the territory</td>
</tr>
<tr>
<td>Type of partnership</td>
<td>NGO</td>
<td>NGO + Private</td>
<td>Implementation: NGO Financial support and advisory: Private sector</td>
</tr>
<tr>
<td>Field of intervention</td>
<td>Learning through ICT</td>
<td>eAccessibility</td>
<td>Networking and Advocacy</td>
</tr>
<tr>
<td>Tools of implementation</td>
<td>Online community</td>
<td>State-of-the-art ICT devices</td>
<td>Network of partners</td>
</tr>
</tbody>
</table>
Although the choice of initiatives for the purpose of this study was carried out so to keep a balance in terms of size of organisations involved and level of intervention, between national and local initiatives (see Figure 3), in-depth analysis presented in Annex highlights that small local initiatives tend to be more highly recognised by the community of reference, which is turn more likely to recognise the benefits of the initiative itself. Users feel more enthusiastic about technology novelties when they can pull down the barriers between them and ICT, when they can refer to an intermediary, when they can combine technology with a personal interest; in other words, when they can meet other people and feel part of a community. This is why local initiatives seem to have generated more impact on users: they are more manageable and they have a much stronger hold on their community, which makes it easier to reach potential targets.

A perfect example is Computer Clubhouse in Ireland, through which Intel’s research found out that members who visit more frequently and stay longer:

- Scored higher in breadth and depth of technology use;
- Expressed more engagement in school; and
- Scored higher on measures of problem-solving competences.

Another example is IBM’s Liberated Learning: through each university the Consortium has managed an optimal implementation of the speech-recognition technology and has reached a good number of students in need of support. Unfortunately, also due to privacy restrictions, the Consortium practitioners have not been collecting information on the ultimate impact of their initiative, such as time saving or improved students’ performance.

However, it has been further observed that what makes local initiatives more effective is the replication of similar experiences elsewhere on the regional or national territory. This is the case of Wifi Village, Log On Learn, MoLeNet. Molenet, for instance found that a comparison of the (mostly predicted) retention data for nearly 5,000 FE college learners (approximately half the total 2007/08 MoLeNET learners) with LSC national in-year retention rates for 2006/07 suggests an improvement in retention of 8. Furthermore, a comparison of the (mostly predicted) achievement data for nearly 5,000 FE college learners (approximately half the total 2007/08 MoLeNET learners) with LSC national in-year achievement rates for 2006/07 suggests an improvement in achievement of 9.7%.

Moreover, practitioners from Wifi Village found that out of all the people involved in the project 22.5% of the participants had already looked for a job, compared to 7% of people interviewed for the control group, thus showing a much higher inclination to joining the labour force within people who acquire IT skills.

Imagination, enthusiasm, and relentless pursuit of a vision are therefore invaluable in the small-scale grassroots types of initiatives that commonly serve the constituencies not easily reached by government or bigger organisations.

The case studies analysed for the purpose of this study also provide numerous examples of how broad-based partnerships with involvement of private and no-profit stakeholders are critical to success of e-Inclusion initiatives. The cases studied seem to suggest that initiatives
that have a multi-stakeholder approach are more likely to generate successful impacts. This could be the case of the Virtual Bus. Moreover it is generally observed that the formula for success involves NGOs as leaders in the implementation process, whilst private-sector partners make the partnership strong thanks to their financial support that guarantees sustainability and to their advisory ability that ensures appropriate resource allocation as well as provide expertise on different matters.

This is the case of BT’s and Scope’s Wheeltop Project, where the staff working with the students at Beaumont College feel they see the students become more actively engaged with the curriculum as a result of taking part in the project. Examples include being able to type their own work independently rather than dictating, being able to operate a video camera more independently rather than directing staff to do so, being able to access and contribute to the college blog on their own devices rather than relying on support and being able to perform choreography using specially designed, accessible grids rather than expressing ideas for transcription by staff. Unfortunately the students do not get given definitive grades for their work so it is difficult to keep track of their performance at school in a more quantitative way.

The broad involvement of both an NGO and a large corporation has ensured that the initiative comprised people with insights into the needs of the target group as well as people with insights into the financial and managerial aspects of the initiative. Therefore, it is crucial that e-Inclusion initiatives have the ability to raise support and funding independent of government, both in kind such as specific knowledge regarding location- or user-specific circumstances, as well as in the form of capital, equipment, and infrastructure.

In terms of field of intervention, if we cross the case studies with the information we have gathered on results, which indicate small/medium and local initiatives to be the most impactful, we would be led to conclude that the highest results have been achieved by projects that focus on Learning through ICT and eAccessibility. MoLeNet, LogOn Learn and Computer Clubhouse are examples of the first case, whilst Reasonable Adjustment Scheme and Wheeltop are illustrations of the second case.

With particular regard to Learning through ICT, several projects focus on creative applications of ICT such as audiovisual and web design as a way to achieve a double dividend: to transfer high-level skills while keeping retention and participation, which is always a challenge in job insertion schemes. It appears that creative applications are both in demand from the labour market and attractive and stimulating for the participants to the training. Projects such as Mode83 is a main proof of the benefit of this approach: absence rates are almost zero, while they are normally quite high in other work integration projects, and around half of the trained people find a job after the training. The Clubhouse has a similar approach for school drop-outs.

While the impacts of some of these cases have been aforementioned, the Reasonable Adjustment Scheme launched by Barclay’s found that in 2005 80% of employees agreed that ‘management supports equality and diversity in the workplace’ (75% in 2004). Furthermore, the number of people identifying themselves as disabled in the Employee Opinion Survey has gone up by 22% since 2004. This has allowed Barclay’s, not only to deal with disability in a more appropriate manner, but also to create a more welcoming and comfortable working environment for its employees. Barclays was voted 27th out of 80 companies in the first ever
Employers Forum on Disability benchmarking exercise; Barclays Capital US was named Employer of the Year by the National Business and Disability Council.

However, analysis of our case studies has led to conclude that the most impactful cases are those focusing on Networking and Advocacy activities. Despite not measuring its ultimate impact, UK Online Centres for instance can currently count about 6,000 affiliates – of which 3,000 are libraries, about 1,000 are represented by educational institutions and 2,000 by NGOs. Furthermore a staggering 1.3 million courses had been carried out and completed by a total of 250,000 users, across an overall supply of 30 modules. Because organisations like UK Online Centres and the newly born Telecentre Europe bring together a high number of existing local initiatives while at the same time creating new ones, they become channels of a multiplier effect that enhances and disseminates their knowledge of user needs, their expertise and resources.

Finally, in terms of tools of implementation, another central element is to ensure that measures are tailored to the circumstances of an individual. Some initiatives have specifically aimed at the development of advanced digital literacy skills and there are some examples of initiatives where participants have learned to use ICT in more advanced and interactive manner (see for instance the Virtual Bus). This emerging advanced deployment of ICT is enabled by increasingly affordable technologies such as mobile phones, iPods, and PDAs (this is the case of MoLeNet), through collaborative functionalities called WEB 2.0 and through a open source software platforms, for example Facebook (see for instance Wheeltop Project). These technologies can be used for a range of purposes: from looking for support in an online community, to a group of elderly who share a common interest about historical events in their community.

These initiatives stress the importance of understanding user needs as a prerequisite to tailoring initiatives to individuals’ circumstances. The promotional methods used to motivate and attract new participants are also varied and range from “word of mouth” - often through the many volunteers - to newspaper articles, advertisements, webpage promotion and even radio and TV campaigns (see for instance UK Online Centres). These emerging changes in the use of ICT must certainly be acknowledged in the ways e-Inclusion is understood and addressed.
3. POLICY RECOMMENDATIONS

In this final section we propose our policy recommendations, which are a re-elaboration of the input described earlier.

3.1. Web consultation

Figure 5 below illustrates the user-friendly voting platform launched by Tech4i2 at http://tech4i2.ideascale.com. Table below provides a list of all 21 recommendations that were submitted to voters for brainstorming through the platform, alongside the possibility to propose additional recommendations that were not mentioned among the ones listed below.

Table 4: List of policy recommendations available on platform

<table>
<thead>
<tr>
<th>CODE</th>
<th>POLICY RECOMMENDATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Push for the creation of curricula for people who design inclusive products and services</td>
</tr>
<tr>
<td>2</td>
<td>Push companies to position digitally-excluded people as valued ‘customers/users of services, employees and stakeholders</td>
</tr>
<tr>
<td>3</td>
<td>Engage in influencing the business culture</td>
</tr>
<tr>
<td>4</td>
<td>More funding to research projects with high potential and benefits for the wider community</td>
</tr>
<tr>
<td>5</td>
<td>One single point of contact for funding in support to digital inclusion</td>
</tr>
<tr>
<td>6</td>
<td>Scale up profile of e-Inclusion within the Commission and establish a Task Force</td>
</tr>
<tr>
<td>7</td>
<td>Raise awareness in social inclusion government departments about the key role of ICT</td>
</tr>
<tr>
<td>8</td>
<td>Push to lower license fees for software used in social inclusion initiatives</td>
</tr>
<tr>
<td>9</td>
<td>Reduce excessive bureaucracy and administrative burden on funding and PPP</td>
</tr>
<tr>
<td>10</td>
<td>Establish a Committee on e-Inclusion as a forum for NGOs and private companies</td>
</tr>
<tr>
<td>11</td>
<td>Improve communication on EU initiatives</td>
</tr>
<tr>
<td>12</td>
<td>Raise inter-institutional awareness on digital inclusion at Member States level</td>
</tr>
<tr>
<td>13</td>
<td>Push for the introduction of new technologies as part of mainstream education policy</td>
</tr>
<tr>
<td>14</td>
<td>Leverage ICT manufacturers to increase their contribution and develop more accessible, inclusive products</td>
</tr>
<tr>
<td>15</td>
<td>Encourage a culture of shared knowledge</td>
</tr>
<tr>
<td>16</td>
<td>Make EU accessibility regulation more flexible</td>
</tr>
<tr>
<td>17</td>
<td>Collect statistics</td>
</tr>
<tr>
<td>18</td>
<td>Support private organisations to test their technology</td>
</tr>
<tr>
<td>19</td>
<td>Push governments to adopt ICT strategies</td>
</tr>
<tr>
<td>20</td>
<td>Let’s not leave latecomers behind!</td>
</tr>
<tr>
<td>21</td>
<td>Push private companies to do more and collaborate with non-profit initiatives</td>
</tr>
</tbody>
</table>

Source: authors’ elaboration

In the snapshot below, an example is provided of how the policy suggestions were published and presented to voters: first a catchy title gives a general idea of what the proposal is about (i.e. More funding to research project with high potential and benefits for the wider community), secondly the short paragraph below explains in plain language what the reform would entail.
Moreover policy recommendations were grouped under three categories (these can be observed in the top left-side corner in the figure below):

- **Things to improve** (12 items), if the recommendation concerned existing measures or policies promoted by the Commission but suggested an improvement of the status quo;
- **Funding opportunities** (3 items), if the recommendation concerned reforms to the application process for subsidies dedicated to e-Inclusion initiatives;
- **New tools** (6 items), if the recommendation suggested introducing new mechanisms to the EC’s toolkit for the collaboration within the Commission itself and different stakeholders (i.e. practitioners, European Parliament, national governments).

**Figure 5: Platform screenshot**

![Platform screenshot](image)

Source: authors’ elaboration on the users’ votes

Overall, a total of 16 votes were casted through the platform by the practitioners of the 13 reviewed initiatives. It must be stressed that, although in no way is this a qualifying figure to make statistical inferences, an effort has been made to draw general conclusions on the basis of macro-observations, which have been crossed with other information to reinforce the findings obtained through the interviews and the questionnaires.

First of all, it is encouraging to note that the category of recommendations with the highest consensus was the one labelled *Things to improve* – as shown in Figure 6 below. This indicates that practitioners are generally satisfied with the level of support and intervention on behalf of the Commission, but believe that there is room for improvement, namely in the areas mentioned analysed below.
Figure 6: Consultation platform results by policy recommendation

Source: authors’ elaboration on the users’ votes

Figure 7 below plots the 21 policy recommendations against the number of votes received by each of them, thus showing which ones have won the highest consensus. For convenience, recommendations are shown in the chart through their code (from 1 to 21) as shown in Table above. Hence, as a result of the platform survey, the most popular policy recommendations appear to be:

- Code 4: More funding to research projects with high potential and benefits for the wider community (3 votes);
- Code 1: Push for the creation of curricula for people who design inclusive products and services (2 votes);
- Code 2: Push companies to position digitally-excluded people as valued customers/users of services, employees and stakeholders (2 votes);
- Code 3: Engage in influencing the business culture (2 votes);
- Code 10: Establish a Committee on e-Inclusion as a forum for NGOs and private companies (2 votes);
- Code 14: Leverage ICT manufacturers to increase their contribution and develop more accessible, inclusive products (2 votes);
- Code 15: Encourage a culture of shared knowledge (2 votes);
- Code 18: Support private organisations to test their technology (2 votes).
More generally, if we may simplify in the attempt to clarify these somewhat scattered results, two are the areas that mainly interest e-Inclusion practitioners:

- **Influencing the culture** whether it is the users and consumers, the private sector, service and product designers, policy makers, manufacturers, etc. This is no doubt confirmed by the interviews with case practitioners whose need for channels of dissemination was recurrent. This is because dissemination awakens public opinion and acts as a multiplier of results generated by the initiatives themselves, both in terms of consensus and popularity of the initiative (demand side) and in terms of financial and political support on behalf of private- and public-sector organisations (which in turn acts on the supply side);

- **Getting financial support**: this is an imperative for most organisations, especially as the e-Inclusion landscape is inhabited by a plethora of small and medium organisations whose human resources take care of all parts of the process of implementation, including fund raising. This means that most of the times organisations do not hold the appropriate skills and know-how to venture in the treacherous world of public funding schemes, thus missing great opportunities for their initiatives. Getting financial support therefore means, not only making more money available, but distributing existing resources more wisely also by breaking barriers of entry for applicants.

### 3.2. Final policy recommendations

Stemming from the results of the consultation mentioned above and from the cross-analysis of the case studies in Section 2, **Figure 8** below aims to graphically describe the interrelations between the recommendations that we are about to illustrate.
First of all, a distinction can be made between policymaking that aims at fostering and supporting initiatives promoted by private companies and NGOs, and between policymaking that aims at facilitating the action of national governments and public-sector institutions, which will eventually help private and no-profit sector organisations as well. This distinction is shown on the left-hand side of Figure 3.

With regard to the private-sector and NGO side of policymaking, practitioners are firmly hoping for a dramatic improvement in the business culture and for an increase in sensitivity towards e-Inclusion-related issues that is yet to be witnessed. For any shift in paradigm to take place in terms of accessible technologies, culture needs to change. May it be amongst manufacturers and suppliers, or within governments and public organisations, or amongst employers and employees, it is essential that people at all levels understand the relevance of these issues before they can take action. This can be achieved through a top-down approach: if people at the top of the pyramid can shift their mind, the others will follow. This would envisage achieving the following intermediary policy goals:

- Pushing companies to position digitally-excluded people as valued ‘customers/users of services, employees and stakeholders: this should encourage employers to make reasonable adjustments within the working environment either in terms of providing users with the appropriate accessible technology or in terms of training them to become part of the information society;
- Pushing for lower license fees of software and hardware equipment used in social inclusion initiatives: one of the main problems for the sustainability of social-inclusion initiatives is the high cost of software license. When providing specialised training, the
software has to be state-of-the-art, in order for the skills to be useful in the labour market. The EC could encourage industry to adopt an e-inclusion version for software licences, similar to the “education” version, maybe through a common label for e-Inclusion initiatives;

- Leveraging ICT manufacturers to increase their contribution and develop more accessible, inclusive products: there are extremely attractive business cases for the industry to become more involved in the development of technologies that meet the needs of disabled users and users with low ICT skills. It is paramount for manufacturers to learn about these business opportunities and to take action upon them.

Following the achievement of abovementioned intermediary goals, the Study Team has identified two main final goals that should stir policymaking in the immediate future. First of all, it will be vital to foster collaboration between private and non-profit initiatives: supporting and promoting synergies between cross-sectoral organisations will be key for the future of innovation. This should help organisations exchange know-how especially on user needs, break the boundaries and build new bridges. There is room for private companies to be much more incisive in their contribution to e-Inclusion; this is especially true in terms of IT donations and financial support that could be provided to initiatives that have already proved successful and impactful but need sustainability or additional resources for further development. Furthermore, work placement programme could be put in place with trainees from e-Inclusion non-profit initiatives. Additionally, the Commission should ensure that already existing synergies created through projects and studies such as this one are maintained and cultivated; for instance, that practitioners from this study have an opportunity to get in touch with each other and possibly create partnerships.

Furthermore, supporting leadership in e-Inclusion initiatives will be key for the success of e-Inclusion. This could envisage training MBA graduates on disabilities and digital exclusion, for instance, or creating strong synergies between governments and companies’ CEOs so they can work together to make a change.

With regard to the public-sector side of policymaking, on the other hand, practitioners are demanding for e-Inclusion to slide on top of governments’ agendas. This would envisage achieving the following intermediary policy goals:

- Pushing governments to adopt ICT strategies: some countries are still lagging behind and it is about time all European Member States take action at this level. It would also be appropriate, in some cases, for governments to appoint a Ministry for Information and Communication Technology;
- Raising awareness in social inclusion government departments about the key role of ICT: existing funding programmes for social inclusion are quite traditional and

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7 Obviously, the institutional setting and definition of social inclusion policies varies from country to country. We here refer to both “welfare” measures for social support, such as social assistance and support and activities under the competence of health departments, and “work-fare” related policies such as job insertion, vocational training, and activities under the competence of education departments.
struggle to appreciate the true importance of ICT as a tool for social inclusion. They expect ICT to be a topic for the “economic development” departments. They tend to fund more traditional and less added value work placement and social inclusion initiatives;

- Raise inter-institutional awareness on digital inclusion at Member States level: Commission driven dissemination activities should help spread awareness on digital inclusion across the various ministries and agency that in Member States continue to operate in Silos. The importance of ICT and its wide range of uses should be better disseminated across institutions. Many are yet to realise the positive impacts of technology on individuals and communities. Awareness could be raised by mainstreaming ICT programmes inside existing social inclusion policies.

The abovementioned should then lead the Commission to achieve a couple of final policy goals. First of all, the Commission is called to act on pushing for the introduction of new technologies as part of mainstream education policy. As a matter of fact, there is a need for the whole workforce to be comfortable with technology and have a level of competence which enables those they support to participate in any given setting. Secondly, the Commission will have to strongly encourage the creation of curricula for people who design inclusive products and services. There is a need for supporting people who work behind the development of technologies (hardware, software and online content) to learn and understand the difficulties faced by many users when dealing with ICT. Awareness-raising should then be accompanied by the creation of courses (i.e. on-the-job training, university modules) that specifically aim to increase designers’ and developers’ know-how in improving accessibility.

In conclusion, it is hoped that policymaking moves along these lines of action, it will foster the creation of a culture of shared knowledge. The Commission is called to act on helping European organisations to build on their ability and willingness to share knowledge and experience: this will essential for players not to replicate mistakes and to optimise resources.

On top of the abovementioned policy recommendations, the Study Team has identified a number of issues that have been recurrent in our conversations with practitioners. However these issues did not fall within the category of policy recommendations and have been left to provide food for thought in this final section of the report, as also shown in Figure 9 below. They concern re-organisation of processes that are internal to the Commission and that would help improve policymaking’s effectiveness and stakeholders’ relation management.
In particular, there is lack of supportive quantitative evidence on a number of issues, i.e. related to disabilities; gathering such statistical information will be vital to acknowledging people’s right to accessible equipment and to ensuring that the necessary sustainable funding and frameworks are in place to achieve this.

Furthermore, practitioners are not always reached by information on EU activities, conferences, initiatives and funding relevant for digital inclusion. Dissemination of activities seems to have been scarce, thus causing many potential beneficiaries to give up on taking part or on applying for funding opportunities. In particular, jargon and highly-technical terminology have often represented a daunting barrier to access.

In terms of relations and consultation with the private and no-profit sectors, practitioners have expressed the need for three main reforms:

- Creating one single point of contact for funding in support to digital inclusion (one-stop-shop): currently funding and support to digital inclusion are dispersed into many different programmes which make it impossible for NGOs or private initiatives to maximise their fund raising efforts;
- Establishing a Committee on e-Inclusion as a forum for NGOs and private companies: there should be new ways and channels for NGOs and private initiatives to interact and cooperate directly with the Commission without having to go through national governments. This should help break walls and build bridges across society, facilitate circulation of ideas, fasten implementation and speed up cooperation. The online consultations launched by the Commission are either unknown or considered not really useful;
- Making EU accessibility regulation more flexible: current EU regulation is too ambitious and abstract to be concretely applicable, and the roles of the different players

**Source:** authors’ elaboration
in the value chain have to be taken into account. Closer understanding of the market and of the needs of end users has to be taken into account.

Finally, with reference to funding schemes available, a number of fundamental remarks have been collected that ought to be taken into account for the revision of application mechanisms:

- Scaling up profile of e-Inclusion within the Commission and establish a Task Force: policies for e-Inclusion should receive more support within the European Commission, as it is felt that digital inclusion will be the fuel for many other areas of economic development for the EU at large. An horizontal task force coordinating all the DGs that may be concerned with digital inclusion in various ways and can provide financial support should be establish;
- Reducing excessive bureaucracy and administrative burden on funding and PPP: the bureaucracy and administrative burden characterising both the applications for EU funding and subsequently the monitoring of how funds are used is prohibitive and leads many NGOs to avoid applying for such funding. The amount of paper work is required is interpreted by many practitioners as a lack of trust from the Commission toward them. Moreover, many think that a change in this direction adopted by the Commission could also stimulate a streamlining of requirements in Member States for both funding and the realisation of PPP;
- Providing more funding to research projects with high potential and benefits for the wider community: the benefit of widening this field of research goes beyond the market interest that the industry may exploit and actually represents a public interest to improve the social inclusion of many people. A technology that is useful to improve accessibility, to enhance education and to increase social interaction cannot be left to become a business case. Action must be taken on a technology that has very high potential to respond to relevant public interests.
ANNEX I: REVISED CASE STUDIES’ ANALYSIS

1. Barclays – Reasonable Adjustment Scheme

Interviewees:
- Clare Harty, Barclays UK, Diversity and Inclusion Manager.

Abstract: Barclays implemented a fully integrated scheme that allows employees from any sector of the company to submit requests for adjustments to their work equipment and environment, in order to accommodate for any disability they may face.

Barclays’ philosophy on diversity is best summed up by Group Vice Chairman Gary Hoffman: “Diversity at Barclays is not a ‘programme of the year’, where we do our best and then move onto something else – this is a long-term commitment.”

Barclays Bank’s aim to make banking easy for everyone enabling access to product and services in any way a customer want/can. For instance, customers can get on the phone, or go online, or pop into a branch – a lot of which have been redesigned to be more accessible (i.e. power-assisted doors, level or ramped access, low-level counters, hearing induction loops at counters, portable induction loop systems – so people can discuss their finances away from the counter or in the privacy of an interview room, lifts, improved lighting, etc.). Services have also been improved to adjust for visual impairments, hearing or speech impairments, mobility or dexterity impairments, and learning disabilities.

It also the bank’s aim to make it possible for anyone to work at Barclays’, no matter what disability. Barclays have three main programmes to help disabled colleagues, which cover improving facilities at work, recruitment and development.

IMPLEMENTATION AND SELF-REPORTED RESULTS

From Barclays’s documentation and through the interviews it appears that the Bank is committed to disabled customers and employees - not simply to meet the requirements of the Disability Discrimination Act, but also to ensure both categories the same level of business/work opportunities. For this purpose a dedicated Disability Issues Unit was set up alongside the Corporate Social Responsibility department. The mission of the Unit is to change people’s views and perceptions around disability and to provide the expert advice and support required in dealing with the challenges faced by disabled people when using banking services. The team has a lot of experience both of disability matters and of banking services and they are able to provide guidance to staff and customers about Barclay’s services and the adjustments that have been introduced to make access easier.

Barclays’ Reasonable Adjustments scheme aims to make the workplace more accessible for disabled employees and to allows them to fulfil their potential. Since 2005, more than 2,500 of these adjustments have been made. They include simple but effective changes to disabled employees working environment from changes to seating and lighting, or to arranging sign
language interpreters for meetings. Furthermore, they have completed a project to provide an enhanced service for people with complex IT needs.

Barclays’ Reasonable Adjustments scheme provides an accessible and structured process so that employees and line managers know who to contact for help. Assessments are used to resolve issues by phone or personal visit. A reasonable adjustment toolkit is available on the intranet and in alternative formats. This is supported by a reasonable adjustments pack which includes full information about the scheme and a DVD illustrating how the scheme works in practice.

Both costs and timescales involved in resolving adjustments issues have been reduced significantly through this scheme. The scheme places a primary focus on ensuring that disabled employees can work to the best of their abilities whatever their location; this helps to reduce absenteeism and increase return to work rates which can have a direct impact on team and corporate performance. The expectation is also that this in turn will have a positive impact on Barclays’ responsible treatment of employees in the workplace.

For disabled employees, the scheme has enabled them to continue contributing to the business with ongoing support which has personal long-term benefits. By sharing the lessons learned with Health and Safety, IT and Facilities Management, the scheme will continue to improve elements across the bank for all colleagues in future.

Figure 10: Paul Appleyard is visually impaired and uses adaptive technology, including CCTV magnifiers and speech input and output software, to perform his role effectively.

Furthermore, Barclays now has a dedicated disability helpline and a One-Stop-Shop disability intranet portal, which brings together all the information employees need in a concise and user-friendly format.

Pos+Ability provides a confidential forum for disabled employees and employees with an interest in disability issues to raise concerns and discuss solutions. The network has organised disability awareness sessions across business and network members that helped to set up Barclays centrally-run Reasonable Adjustment programme. This programme ensures necessary adjustments are made to disabled colleagues’ working environments to enable them to do their jobs.
UK Retail Banking continued to build on the success of Recruitment That Works in 2007. The scheme provides a structured recruitment framework to employers who want to attract jobseekers in to their workforce from disadvantaged backgrounds, particularly those who are long-term unemployed and disabled. It also offers employers the opportunity to review their current recruitment practices, as well as their arrangements with organisations helping people with disabilities in to work, which may be unstructured or ad-hoc. Benefits of Recruitment That Works include:

- Demonstrates an employer’s commitment to recruiting people with disabilities, and informs the development of effective recruitment policies.
- Ensures that recruitment processes are accessible to people with disabilities, by providing an alternative to telephone interviews for people whose impairments affect the way they communicate by phone.
- Provides employers with access to a source of job applicants they may not previously have considered, or attracted.
- Makes good business sense to be seen as an employer with good recruitment practices that attract people with disabilities and other diverse groups.
- Provides the employer with a range of support and cultural awareness to help them recruit and retain people with disabilities.
- Complements the disability recruitment standards identified by the Forum
- Provides the employer with access to a disability support network that can advise on a range of recruitment and retention issues.

The scheme was run at the Manchester Contact Centre in 2007 with further sites scheduled in 2008. Barclays has overhauled the approach to recruitment across the Group from graduate recruitment to entry-level positions. In 2007, five disabled graduates were recruited at the UK Banking graduate training schemes in GRCB, and another 10 disabled undergraduates were taken on as part of the internship programme. Companies who have benefited from using the Recruitment that Works framework include Centrica, CIS, IKEA, Barclays, Granada and the Welsh Assembly.

Furthermore, the Disability Mentoring Scheme is implemented, which offers every disabled employee a trained mentor. Since 2005, approximately 25% of Barclays’ disabled colleagues have taken up this offer.

There is also Group Chief Executive John Varley’s Disability Listening Group, which meets twice a year, and the Reach employee network which helps disabled colleagues with career development and social networking.

The idea for the Reasonable Adjustment scheme came exactly from the Disability Listening Groups held by John Varley, Barclays CEO. It became apparent through work with organisational health suppliers that there were many staff members who could benefit from reasonable adjustments to help them return to work or to reduce levels of sickness absence. The project team brought together a range of stakeholders, both internal and external, with a range of project management, IT, communications, HR and health and safety knowledge and skills. External partners included AXA Insurance, PPP Health care provider, Amicus trade.

**Figure 11: Barclays Chief Executive Officer, John Varley**

During the **pilot phase** of the scheme, 59 cases were recorded. In the first 3 months of the scheme over 500 cases have been dealt with. People who had previously been on long-term sick leave have been able to return to work rather than risk losing their job. New products have also been developed, such as a cashier chair designed for colleagues with back problems.

Barclays has spent over £78m on making its services more accessible to disabled people, and 93% of its UK branch network accessible – the eventual target being for all UK branches to have accessible features. About 95% of Barclays and Woolwich cash machines are at a height that suits wheelchair users and they are helping people with learning disabilities get equal access, partly by funding 'It's Your Money', a booklet from **Employers' Forum on Disability** (see further in this section) which explains banking in clear terms.

In the 2005 employee opinion survey, 80% of employees agreed that 'management supports equality and diversity in the workplace' (75% in 2004). The number of people identifying themselves as disabled in the Employee Opinion Survey has gone up by 22% since 2004.

Barclays was 27th out of 80 companies in the first ever Employers Forum on Disability **benchmarking exercise**; Barclays Capital US was named Employer of the Year by the National Business and Disability Council.

**Funding**

The Reasonable Adjustment scheme has become embedded in the organisation and it has become business as usual, as well as being closely measured to ensure its effectiveness. However, budgets have remained centralised to ensure that funds continue to be available for the scheme.
A large part of the UK community budget is also administered by the regional community managers who support initiatives that meet the needs of local communities.

SUCCESS FACTORS

Strong leadership on behalf of the Group’s CEO John Varley has been vital for the creation of the scheme, its implementation and undoubtedly for its success.

Barclays is also member of the Employers’ Forum on Disability, of which John Varley is President. The Forum has been supporting the Group throughout the scheme’s implementation and measurement of results.

Finally, suppliers’ increasing co-operation has also been fundamental. In the future, key external suppliers will directly supply for a portfolio of products agreed on with Barclays; these are the products for which changes are required the most. Among the benefits: reduced cost for adjustments to technology and the products will be tested to ensure maximum accessibility.

BARRIERS

According to Ms. Harty there are still great challenges to be faced and overcome, especially in relation to accessible technology products. Barclays is hoping to encourage more manufacturers and suppliers in the future to take up on this commitment towards society and they are trying to channel effort through the Employers’ Disability Forum, of which they are members.

It emerges that the most common mistake companies make in trying to deal with accessibility is not consulting with the end users, i.e. disabled users. Barclays is hoping to make a difference in pushing for a cultural change.

According to Ms. Harty one down side of Barclays’ commitment and efforts in this area might be the scarce ability to communicate and disseminate their activities which may inspire others to do the same.

POLICY SUGGESTIONS

The policy suggestions expressed by Barclays’ team are directly related with the abovementioned barriers and mostly refer to the public authorities’ needed role in the promotion and support of similar inclusive initiatives. Furthermore, it will be paramount to push for further involvement and commitment on behalf of manufacturers and supply, and this is an area of policy where the EC can position itself for the future.
2. Budapest Cultural Centre of 11th District – Click on IT, Granma!

Interviewees:

- Gabor Kiss, Project Manager and Department leader Coordination and Development at Budapest Cultural Centre (BCC)
- Laszlo Szucs, UPC, Media Contact Manager
- One teacher and two students all members of the Ezüstnet (Silvernet) Association.

Abstract: the initiative aims to promote digital literacy among senior members of the Hungarian society through tailor-made courses.

Budapest Cultural Centres (BBC) are public bodies belonging to the Budapest Municipality and they are present in several districts of the city. The BBC of the 11th district has launched in 2002 the initiative Click on It Granma (COIG) providing digital skills to senior citizens. COIG started with an initial very limited financial support from the 11th district. From 2002 until 2006 COIG was run with this limited public funding only in Budapest. Since 2006 UPC became the main sponsors of COIG, which was scaled up nationwide and reached 20 different rural settlements across the country.

UPC Hungary is a leading television, broadband internet and telephone service provider offering services through its cable networks in several big towns and smaller settlements in their environs throughout the country. According to the figures of the company as of June 30, 2008, UPC Hungary operated over 1.4 million services through its networks reaching 1.2 million homes, for 640 thousand cable television, 48 thousand digital cable television, 173 thousand digital satellite, 305 thousand broadband internet and 214 thousand telephone subscribers. UPC Hungary is the Hungarian affiliate of UPC Broadband (UPC), the European division of Liberty Global, Inc., the world’s leading international cable operator, present in 10 European countries as well as in Asia and in South America. UPC brings television, broadband internet and telephone services to approximately 10 million customers throughout 10 European countries. As affirmed during the interview by Mr. Szucs, supporting digital inclusion is the core part of UPC Corporate Social Responsibility, which springs from Liberty Global vision to make “access, skills, opportunities widely available so that no one is left behind”. The company is driven by its vision that ‘this amazing but often complex digital world should be for everyone’. UPC’s 15,000 employees throughout Europe strive to make this happen by bringing simplicity and a real human touch to everything they do.

Ezüstnet (in English, Silvernet) can be considered in a way one important outcome of COIG, in fact, it is an association of senior citizens who have attended the training courses offered by the programme and decided to organise themselves into an association with the aim of providing senior-age group with internet support, and with the promotion and dissemination of Internet usage. In this respect, the Association is involved in a number of activities:

- They make e-literacy education available to support pensioners;
- They provide Community Internet Access Points to support the establishment and provide operation support;
- They support Senior local communities;
• They keep relationship with the local communities in promoting the initiative;
• They have created a society from older students and organise cultural programs for older students;
• They promote the positive image of the elder society;
• They cooperate with similar organisations

Moreover, Ezüstnet together with BCC successfully applied for European Commission Long Life Learning funding and exported COIG to Slovakia and Romania within the Hungarian speaking communities residing in those countries.

COIG is a basic ICT course offered for elderly people. A network of training venues was set up by the BCC in Hungary. As anticipated, with the support of UPC the programme has reached 20 settlements, where local partner NGOs deliver the programme training methodology involving a total of 35 teachers. Since 2002 the network has supported the learning of 4000 senior citizens (mostly aged 62-64, of which 65% women). The course is nationally well known and appreciated. The programme has been so successful that there is always a waiting list of senior citizens who want to attend the course but have to wait due to the still insufficient funding.

Participants learn step by step about computers and internet in general including how to find relevant and useful information on the web, how to send emails and use chat, forums, discussion groups, share pictures etc. Practical courses provide solid knowledge base and skills that can be further developed by practising on the computer. For this purpose, the course venues (cultural and community centres, libraries etc) provide internet access points free of charge during and after the courses. This has directly helped the seniors to stay in touch with their families, stay up to date on health care and in general, keep in touch with the new developments at all fronts.

During the interviews we were able to hear directly the voices of two old ladies who attended the course and were now active with Ezüstnet. The old ladies explained that they felt they had to learn use the Internet to avoid being totally cut out of society (‘in every TV commercial and in newspaper they always say to check website to learn more and I was not able to do so’). They use is to find out information about health, about transportation, they use e-mail and skype to stay in contact with friends and relatives. They seemed so happy and proud of what they achieved, although they admit that they still feel uneasy at times when things become complicated and that they still do not dare buying anything online.

At COIG courses 46% of the learners have no higher education. This high number shows that lifelong learning can give a second chance. ICT usage is able to compensate primer disadvantages. Internet is a good tool of memory training and excellent for breaking isolation (especially for disabled people). Due to life-long learning senior students remain socially active and creative. Through ICT solutions for social networking people can improve the quality of life and reduce social isolation. Seniors enjoy a healthier and higher quality of daily life for a longer while, assisted by technology, while maintaining a high degree of independence, autonomy and dignity.

The idea for the project came from some background statistics, in particular:
• There are 3.2 million senior citizen in the 10 million Hungarian society;
• Senior employment is at 3-5%;
• Lack of foreign language knowledge is detrimental to internet use.

Opportunities for senior citizens to acquire technological skills are few and far between in Hungary, leading to high rates of digital exclusion amongst this group. 84% of people aged 55 to 74 have no computer skills in Hungary, in contrast to the European average of 65% (Eurostat report on e-society, June 2006). This lack of access and understanding can leave senior citizens feeling out of touch from society. It means they miss out on all of the opportunities the Internet offers, like helping them keep in touch with family and up to date with healthcare services.

The programme’s mission is to partner with a professional and experienced organisation to enable underprivileged age groups overcome the main obstacles for the enjoyment of social benefits of ICT tools by organizing widely accessible practical courses in community centers nationwide and raising the awareness especially among elderly and retired people.

Surveys show that adult learners are motivated to acquire ICT skills for a number of reasons:

• They don’t want to be left behind (“I hear everywhere www, @, but I don’t know what that is);
• To get/keep in touch (new relationship, family);
• To get information;
• Virtual tourism;
• Learning.

IMPLEMENTATION AND SELF-REPORTED RESULTS

‘Click On It Grandma’ programme relies on a computer learning course for senior citizens developed by BCC. The programme provides practice-oriented e-skills learning and training courses that have been designed for and targeted to meet the special needs of senior citizens, and are also compliant to the laws on adult education. Curricula are tailored to the interests of the seniors (i.e.: practical information to help daily routine without standing in a queue, timetables, opening hours, event databases). The participants are also provided with a professionally prepared and printed 50-page textbook with examples, exercises and additional information.
Figure 12: elderly learners at COIG seminars and events

The first course was developed as a further training for leaders of senior clubs within the BCC training courses. A short internet session was part of the training and, upon request, the 25 hour course was set up.

The mission is to ensure equal opportunities for elderly people by facilitating their access to information; to influence the image of elderly people within society; to raise the awareness of the importance of digital literacy. Specific objectives include: ensuring the chance to the older generation to learn about new ICT countrywide; offering accessible and available 25 hour course tailored to the needs of the target group; improving the course and develop further training.

One of the main goals is therefore to demonstrate to course attendants that the internet is easily learnable (in short courses), that it is a good communication tool, that there exist web content in Hungarian language for the seniors, and that the internet is an important field of the life quality.

The target groups has been identified in the seniors over 55 years.

So far, the results in terms of output have been as follows:

- Education courses are held in 20 different locations;
- Courses involve 24 hours of teaching;
- A fee of 4 EUR/head is paid by each participant;
- Maximum 10 learners for each course;
- 4,000 senior learners have been reached over the past 7 years.
COIG has developed a customised curriculum consisting of 24 hours over a period of three weeks, is conducted by qualified instructors, and prepared by the BCC. Participants receive a professionally developed 50-page textbook with examples, exercises and additional information. The learners’ book assist the self-practicing and show new ways for learning. The practice-oriented e-skills learning and training courses developed by BCC are especially designed for and targeted to meet the special needs of senior citizens. Participants learn step by step about computers and internet, how to find relevant and useful information on the web, how to send emails and use chat, forums, discussion groups, share pictures etc. Practical courses provide a solid base of knowledge and skills set that can be deepened by further practices. At the time of the courses the majority of the participants has not yet PC or internet connection at home. For this purpose, the sites of the courses (e.g. cultural and community centers, libraries, tele-houses) provide internet access points free of charge during and after the courses. Between the classes, learners practice together or alone in the public internet access points (PIAP) offered by the premises or at home.

Furthermore, COIG continues to engage with and educate programme participants well after they graduated from the 24-hour course. Unique ‘self-teaching circles’ have been formed in every city, and COIG clubs have been created, allowing current and former participants and even non-COIG participants to get together, socialise and further develop their ICT skills. The PIAP points are able to offer consulting and further training possibilities in the COIG clubs, where educated IT-mentors present new topics, like e-banking, downloading photos from camera, using e-government services in short terms. This stimulates learners to come back and use the PIAPs.

Thanks to COIG’s success, Silvernet’s mission is to build up an international and regional educational network within the Carpathian Basin and extend COIG to the Hungarian speaking regions of Romania and Slovakia.
The Budapest Cultural Centre offers a range of resources free of charge:

- Full educational package;
- Organisers’ expertise;
- Tutorial knowledge (possibility to observe as a teacher trainee);
- Printed training materials;
- Special curriculum and handouts;
- Professional consultation through the programme.

On the basis of the output produced, the initiative has also generated impactful outcome on the participants.

- **Increased participation** (see Graph below): UPC Hungary’s commitment to the BCC’s has significantly increased the number of seniors that benefit from the programme. Between 2002 and 2005, prior to UPC’s involvement, only maximum 100-200 senior citizens per year benefited from the programme. In 2006, UPC’s first year of partnership with the BCC, almost the same amount (367) of seniors could benefit again from the programme than during throughout the previous four years. In 2007, the COIG programme was further expanded, with 1,200 seniors completing the course, more than 300% increase. In 2007 UPC doubled the total amount of participants between 2002 and 2006, and in 2008 they doubled again the number of the previous year (2007). In 2008 the project will provide ICT skills for almost 2,000 seniors.

**Graph 1: Results – number of senior learners by edition**

- **Increased geographic reach** (See Graph and Figure below): Prior to UPC’s support, the COIG programme was only offered in Hungary’s capital, Budapest. With UPC’s support, the BCC extended the programme beyond Budapest and set up a nationwide educational network to launch courses franchised, administrated and supervised by BCC. COIG courses are currently offered in 20 Hungarian cities, including both urban and rural settings. The locations of the premises are quite dispersed throughout the country, not restricted to only one region. From only five premises, located exclusively in the capital city in 2005, the number of the location of the courses has been expanded...
to 23 in 2008. Moreover, the project stepped across the borders and started to be extended to other countries as well, with two new locations in Slovakia and Romania this year. This increased geographic inclusion has both improved the access and skills to use digital technologies across Hungary.

Graph 2: Results – number of education centres by edition

COIG’s teaching programme is based on the conviction that ICT-graduated seniors are not e-excluded and do not feel isolated anymore, even if they do not use internet in their daily routine. And the reason for that is that finally they manage to break through the cognitive and emotional barriers, personally experiencing and understanding what this digital/virtual world does mean and what is it for. By that they do not feel alien anymore in present society, and they are skilled to understand and even speak the language of the youngsters and they realise that they are also able to acquire and master the knowledge and ability necessary to be part of the e-world. Finally they do not think themselves lagging behind and being useless in the society anymore.

The Budapest Cultural Centre wants to cultivate the community cultural sector in Hungary to provide higher level services for the residents (especially for lower educated classes). In this aim they developed an educational package that is a convenient tool to adapt the programme and the methodology of teaching seniors to ICT use. They are now used to it as they have been running it for years so far, gradually increasing the number of premises, teachers and courses in different locations and in different type of premises. The network raises the number of the educational premises every year, and trainings for trainers are organised regularly, as new partner organisations are involved in the project.

The project coordinator joined several European programmes to share and further develop the project. Within an EC’s Life-Long Programme project the two partners started adapting the project in the Slovak Republic and Romania. There is a chance that with the help of UPC Slovakia and Romania they will be able to establish country-wide education network in those two countries, as well.
FUNDING

Since 2006 the main Funding for COIG comes from UPC, providing 50,000 euro a year. Previously and also today a variety of other funding have been secured, but all of a very limited amount, they include EU LLL programme, small contribution from the local district, charities and voluntary contributions, plus the 4 euro fee paid by participants. Over the 7 year period the total amount of funding received was 210,000 €, plus a 4 euro fee paid by each participant. However, the long term sustainability of the programme is ensured mainly by the UPC funding.

SUCCESS FACTORS

The key success factors of the programme are quality of the organisation (including complaint management), venue, trainer(s), method, duration, fee. More specifically:

- Duration of the course: 6 weeks (1 day/4 lessons/week);
- No previous experience is needed;
- Practice in the computer room;
- Providing notes and handouts that are regularly improved;
- There is a continuous effort to make the program as accessible as possible;
- The curriculum is tailored to the older learners’ needs;
- Small learning group (6, max 10 learners);
- Measurement of satisfaction and taking account of feedback / opinions;
- Developing positive and encouraging attitude;
- Ensuring a good atmosphere and creating a real community of people;
- Ensuring consultation during and after the programme;
- The course is followed by an exam, to which virtual grandchildren also participate;
- Participants get a certificate after passing the exam;
- Participants are encouraged to set up a personal homepage.

Furthermore, the COIG initiative is successful in taking account of the social context, its impact on the community, in being innovative and in embracing all users, co-operating with others, sharing the learning experience, and ensuring long-term sustainability.

BARRIERS

The main barrier has been the lack of finance (from the state and from local authorities). Therefore, despite the organisations’ intention to make the programme course as accessible as participants still have to pay a symbolic fee (EUR 3). This is in addition to the funding it receives from public authorities.

POLICY SUGGESTIONS

The interview touched on the policy dimension by asking to what extent COIG was coordinated with, supported by, national level policies. The answers, for what concerns the national level, provide a picture that was confirmed also during interviews with the other two
Hungarian initiatives. According to the interviewees, while COIG was included twice as best practice in the official Hungarian national report on e-Inclusion, they have received no funding from the national government. They affirmed that in their opinion there is currently no coordination between the national government and the private sector and third sector on matter of e-Inclusion because the current government has no focus on this area. They claimed that since the Ministry of Informatics was disbanded in 2006 and all matters related to the Information Society transferred to the Prime Minister Office, the policy related to e-Inclusion lost importance. Between 2003 and 2006 the Ministry of Informatics had an important impact and supported development in the field, which is now lost. A Parliamentary Committee on digital inclusion was set up, which is not very effective, according to the interviewees.

Both Mr. Gabor and Mr. Szucs saw as an important role for the Commission that of spreading best practices and of helping practitioners in the field learn from each other. It is interesting to note that neither of them was aware of the existence of the ePractice.eu initiative. When showed the ePractice portal, Mr. Gabor (the project manager) said it is interesting but added that in his view the Commission should also support the possibility to exchange experience directly through meetings and face-to-face interactions.

They also thought that it would be easier to have one common source of EU funding for e-Inclusion initiatives, as currently they have to follow and pursue different programmes.

The idea of an high level task force set up from the Commission was considered positive but the UPC representative was sceptical about the possibility of coordinating the CSR programmes of different private players to reach synergies, for each company wants to have its brand and is not likely to share/coordinate with competitors. He quoted the example of T-com (the Hungarian telco incumbent) which copied the COIG and launched its own initiatives instead of collaborating to the already existing COIG (so far unable to secure any form of support from T-com).
3. BT & Scope – The Wheeltop project

Interviewees:

- Adam Oliver, BT Innovate, Head Of Corporate Social Responsibility and Age & Disability Research Programmes;
- Beth Courtier, BT, Community Investment Programme Manager Corporate Responsibility Unit;
- Tamsin Baxter, Scope, Senior Corporate Executive;
- Susie Green, Scope, Senior Corporate Partnerships Executive.

Abstract: an NGO and a telecommunication corporation come together to bring tailor-made wheelchairs equipped with IT gadgets and gizmos to students with disabilities.

In 2007, Scope and BT embarked on a three-year project that aimed to improve access to communication and other technologies for disabled people with communication impairments. BT is engaged in the partnership through its Better World Campaign - a key element of BT’s Corporate Responsibility Programme that focuses on:

- The need for sustainable economic growth;
- The need for wider inclusion of all sections of society;
- The need to tackle climate change.

With reference to digital inclusion, BT is engaged in providing greater access to communications technology (Connectivity); in encouraging communication and its use for social and economic benefit (Content); in helping groups and individuals use technology (Capability).

BT and Scope have been co-operating since the early 90s on different fronts, including the employment of workers with disabilities. Currently, the partnership is rooted in both organisations’ mutual recognition that communication is a fundamental human right. The venture focuses on two interlinking projects: No Voice, No Choice campaign and the Wheeltop project.

No Voice, No Choice is Scope’s campaign which lobbies the UK government to ensure disabled people with communication impairments get the equipment, funding and support they need to have their needs and opinions heard by others.

The Wheeltop Project, on the other hand, is a technology-integration initiative, led out of Beaumont College (Scope’s fully accessible campus catering for residential and day students, aged between 19 and 25, with a broad range of physical and learning impairments), for disabled young people with communication impairments. The project provides ‘wheeltops’ – portable personalised computer systems, like laptops, which are mounted on a wheelchair and customised to the user’s needs. The wheeltop not only gives its users a voice, but also enables
them access to a wide range of applications, including e-mails, SMS, internet and college network.

In addition to the expertise and support provided by BT, Scope works with specialist manufacturers, ensuring the Wheeltop influences future design of such devices, and with schools/colleges, ensuring the project findings benefit as many disabled people as possible.

The programme aims to increase eAccessibility and people’s learning capabilities through ICT, as well as their social inclusion, their independence, autonomy and privacy, and equality of access.

Participating schools in the Wheeltop outreach programme include both specialist and mainstream schools. The project is based in North West England, but will impact across the UK and Europe.

IMPLEMENTATION AND SELF-REPORTED RESULTS

The programme started on April 1st 2007 and will come to an end on 31st March 2010. Scope has a direct rowing role with personnel directly involved in the implementation and delivery of the programme.

The vision of the project is to ensure disabled people have access to communication and other technologies and, in turn, have the same opportunities to fulfil their life ambitions as non-disabled people.

The objectives of the Wheeltop Project are:

- Using off-the-shelf equipment up to 12 Wheeltops, made at lower cost and with greater functionality and adaptability than current technology on the market;
- To address and remove barriers to disabled people getting access to communication equipment and other technologies;
- To give greater independence, autonomy and privacy to the individuals involved in the project – of the key importance to teenagers and young people;
- To challenge misconceptions around disability and bridge the digital divide for disabled people;
- To forge partnerships with leading manufacturers of communication equipment and accessible computers in order to influence the design of future products and software;
- To share expertise, ideas and best practice from the Wheeltop Project with their education establishments (such as the feeder schools for Scope’s Beaumont College) and the wider community, including those who commission, work with and use communication equipment and accessible computers.

The Wheeltop initially addressed a problem that Beaumont College student Natalie Sides identified with her communication aid. This device frequently broke down, leaving Natalie ‘voiceless’ and did not have features Natalie wanted (SMS/email/internet). Scope utilised their expertise and commercial contacts, including BT, to develop the Wheeltop prototype for Natalie. Having seen firsthand Natalie’s experiences and therefore potential benefits for all
disabled people, BT agreed to support the project and campaign by providing expertise/funding (both critical for success and sustainability).

Rohan Slaughter (Beaumont’s technology manager) first conceived the idea of a Wheeltop device – a tablet PC with installed applications that could be customised on the basis of the diverse user needs. However it took several years before the device could actually be put together. BT’s help was vital in providing the components needed to assemble the Wheeltop (i.e. data code), as well as expert support to overcome the barriers presented by technology. In fact, there was a number of limitations that the team had to deal with, namely: the heavy weight of tablet PCs available on the market, which would cause wheelchairs to lose mobility or to overturn (this would have been unacceptable as users could not be left choosing between communication or freedom of movement); installation know-how; battery life – this became especially relevant as the first Wheeltop was made available for Natalie and she liked it so much that she would use it all day long.

Rohan Slaughter’s input was again incredibly useful; he helped integrate technology with user needs thanks to his expertise and know-how in both aspects of the project: ICT and disability. Later on in 2007, after BT had become interested in the Wheeltop Project, Sensory Software - the company that produced the software - also started producing the Motion tablet PC via its sister company Smartbox. The Motion system is now being used by the college, thus removing the burden of technical support from the college. In this sense, as Tamsin Baxter from Scope declared, technology has caught up with the project and has allowed to build on the initial concept for Wheeltop. For instance, Steve – one of the students participating in the initiative – wanted his tablet PC to read out his music titles for him so he could scroll through his database and pick music to listen to. Wheeltop team consulted with the manufacturers from Smartbox and had this developed and installed on Steve’s Wheeltop!

In parallel, Beaumont College has now started developing its in-house expertise. The college has employed technologist Liz Howarth to oversee the project; Liz has worked as a communication support worker at Beaumont previously but took some time off to complete an MSc in Mathematical Logic, which proved to be very useful for her support to the project. Liz works with communication, technology and teaching staff.

A total of 6 to 10 people from Scope and Beaumont College are currently employed or collaborating at different levels on the Wheeltop project, including on management, communication and public relations, coordination, technology expertise (2 full-time experts were hired by the College specifically for the duration of the project); and, while estimates are more difficult for BT participation, at least 3 people from their team are directly involved.

To ensure the project is managed to an excellent standard, a steering group was established to oversee the project in March 2007. Representatives from BT, Scope’s Beaumont College and Scope work on the Steering Group. The purpose of the group is to report, review and evaluate activity on the Wheeltop Project and No Voice, No Choice and ensure that the project is meeting its key performance indicators, budget and timeline. As this is an innovative, experimental approach to this project, the Steering Group produces monthly a highlight report and revisits and, where necessary, refreshes the risk log and project plan on a regular basis. The Steering Group provides immediacy in problem solving and ensures that all key
stakeholders are kept informed regarding the project status at all times. Additionally, given the range of expertise and wealth of experience of the Steering Group members – additional opportunities have been identified for BT and Scope to work together including the development of a Facebook application.

The staff working with the students at Beaumont College feel they see the students become **more actively engaged with the curriculum** as a result of taking part in the project. Examples include being able to type their own work independently rather than dictating, being able to operate a video camera more independently rather than directing staff to do so, being able to access and contribute to the college blog on their own devices rather than relying on support and being able to perform choreography using specially designed, accessible grids rather than expressing ideas for transcription by staff. Unfortunately the students do not get given definitive grades for their work so it is difficult to keep track of their performance at school in a more quantitative way.
Nine students have so far been involved and three more should be reached out by the end of the project in 2010. Following are the profiles of six participants from Beaumont College:

**Natalie** was the first student in the college to use a Wheeltop, and acted as a consultant during the development process. She uses her Wheeltop to speak, but also to communicate in other ways: she is really sociable and keeps in touch with loads of friends via email and Facebook. She has used email to book a family holiday, and sent a spoof complaint to the college in order to gather evidence for the ‘Making complaints’ section of her City and Guilds in AAC (Alternative and Augmentative Communication). This had us worried until we realised that she wasn’t serious! She can use her Wheeltop to control her mobile phone to send and receive texts, and uses this to text her mum to remind her to get the dinner ready when she’s on her way home! Also, Natalie is a big Ronan Keating fan and can now access all her music independently using her Wheeltop, as well as using the internet to find gossip and pictures of him!

**Jayne** comes from the Wirral. She is a big Manchester United fan and loves motorbikes and music. She has a picture of a Lamborghini as her wallpaper on her Wheeltop, and can access all her music using the Wheeltop mp3 player, which she helped to design. She’s a keen student, and uses her Wheeltop as a word processor in sessions, for example to write articles for the college newsletter or to write up her portfolio for her Arts Award qualification. She can also use it to keep in touch by email and to access the internet. She studies dance, and is testing a new set of choreography grids on her Wheeltop. These will allow her to deliver workshops outside of college as part of her Arts Award. If she finds these grids useful, they will be made available to other students in the college.

**Steve** took part in the first year of the Wheeltop project, and has now left the college and returned to live in Barrow. While he was at college he used his Wheeltop to write a blog and articles for the college newsletter, and learned to use it to control his mobile phone. He also put together some PowerPoint presentations of photos of his time at college, which he can now watch back to relive his college memories! He now uses an email account with built-in word prediction and pre-stored phrases, including Austin Powers catchphrases (!) to keep in touch with friends and staff from college, and he uses the Wheeltop mp3 player to play his music independently.
**Uzair** comes from Preston. He is able to speak, but will find it increasingly difficult, so he’s beginning to learn to use a communication aid to help him when speaking becomes too difficult, or when people don’t understand his speech. He loves to play computer games and has a ‘Who wants to be a Millionaire’ game on his Wheeltop. He also loves to listen to dance music and can now access all his film making, and he’s keen to use his Wheeltop to control a video camera to give him more independence for his work on the course.

**Oliver** is originally from Santa Maria in the Philippines and moved with his family to Britain 4 years ago. His native language is Tagalog and he learnt to communicate in English using a communication aid after arriving in this country. Oliver loves using his Wheeltop as a computer as well as to communicate. He spends a lot of time online, using Friendster to meet and chat to friends all over the world, and watching Philippine TV shows. We know from our network reports that most weeks he uses up to 30% of the bandwidth used by the entire college of 76 students and over 300 staff! Oliver also studies web design at another local college, and has the Dreamweaver software installed on his Wheeltop to help with this. Oliver is currently undertaking a work placement on the college IT helpdesk.

**Raquel** comes from Manchester and is in her 2nd year at college. She is able to speak, but has helped to design grids for her Wheeltop to help with her communication when she meets new people, or when people find it hard to understand her speech. She’s really close to her family and friends, and has designed photo album grids for her Wheeltop so she can show and talk about pictures of her baby brother. She’s really keen to learn to use the internet and email more independently, and to be able to send and receive text messages with her Wheeltop, to allow her to keep in touch more easily with home.

All participants get to keep the systems provided for them. Scope will continue to provide on-site technical support as long as they are students at the college. With the BT funding Scope is also currently able to provide ‘outreach’ support to students who have left the college, and they are willing to continue this as long as it is financially possible. The suppliers of the hardware and software also have responsibility to provide technical support, and this will last for the life of the equipment.
BT funding also enabled Scope to research the number of communication equipment users (previously unrecorded by government). In 2007, Scope estimated that at least 1.5 million people in the UK have some form of speech, language or communication impairment and potentially as many as 600,000 of these individuals cannot communicate verbally at all without equipment. However, provision of ACC (Augmentative and Alternative Communication) is extremely patchy and depends entirely on the funding priorities of the individual local authorities and health trust – resulting in disabled people systematically having their right to freedom of expression denied. Without means to communicate disabled people feel isolated and powerless.

Services for the provision and support of ACC have been historically varied and vulnerable. Over the past eight years, since 2000, the government has made attempts to improve the situation on the ground. The most notable government initiative was The Communication Aids Project (CAP). Established in 2002, CAP provided £5 million each year for expert assessment, communication equipment and training for 4,100 school-aged children, who could not get their needs met locally. Funding for CAP 2005-06 ran out half-way through the year and approximately 180 children on the CAP waiting list were left without provision. The situation for adults remains to be particularly acute as CAP funding was not made available to them. More recently in 2007 the government commissioned John Bercow MP (member of Parliament) to produce a review on children, young people (up to age of 19 years) and speech, language and communication. Scope’s project team worked hard to influence the outcomes of the review and in December 2008, eighteen months after Scope’s No Voice No Choice campaign began, Scope was delighted at the announcement of the government’s Better Communication Action Plan, led by John Bercow MP, which promised to support all children and young people who use communication equipment. Scope worked hard to ensure that children and young people who used AAC were included in the Action Plan and the result will go a long way towards incentivising joined-up working between services, better training for professional and a much better standard of service for disabled children and young people and their families.

Although this is a great result for disabled children and young people, the needs of adults with speech, language and communication needs still remain unaddressed. The No Voice, No Choice campaign continues to call on the government to undertake a similar approach for adults who use communication equipment. This will ensure that everyone who has a speech, language and communication need gets the equipment and support they need.

**Funding**

Total funding for the project is **£265,000** – which include **£40,000 for the No Voice No Choice campaign**. The funding comes entirely from BT Better World Campaign, thus allowing Scope to offer its services and equipment to students at no cost. The cost for each Wheeltop ranges from £3,000 to £5,000 depending on the level of customisation of the applications. Remarkable savings have been generated by way of making use of off-the-shelf technology that is available on the market and assembling both the hardware and software components together.
The issue of the Wheeitop Project’s **sustainability** is addressed by Scope and BT through the No Voice, No Choice Campaign. The government has guaranteed its commitment and will co-operate with Beaumont College and Scope to deliver better support services for people with communication disabilities in the future. In particular, the government has agreed to make technology (similar to Wheeitop) available to young people with disabilities up to the age of 18 on a compulsory basis. However, people at Scope and BT feel that more can and should be done and are pushing for government to provide the same resources to adults as well. The longevity of the project has therefore been guaranteed in the sense that the extremely positive results produced and observed on the students involved in the Wheeitop project have served as case-study evidence to get the message to the government and to the wider community. Nevertheless, the question remains open on what will happen when the project is over in 2010 and the budget will no longer be available to sustain the devices that have already been distributed to the 9 students from the project (12 by 2010).

**Success factors**

Evidenced was needed and this was the **first ever project research** to produce supporting evidence. Research found insufficient funding, equipment, training and support for people who work with and use communication equipment:

- 70% of respondents who used communication equipment had been left ‘voice-less’ for more than a day if their communication aid broke down;
- Over two-thirds waited more than six months after their assessment to receive communication equipment/technology;

Scope’s achievements in successfully **influencing government policy** to overhaul services for disabled children without speech have also strongly contributed to the sustainable success of the initiative. Lobbying by Scope has ensured the government act on all of the project’s recommendations – providing £1.5 million funding and implementing frameworks for equipment provision/support; the project focus now is to ensure this is extended to disabled adults.

**Shared learning** has been an additional success factor: whilst the Wheeitop is being used as an EU case study on e-Inclusion, sharing learning and best practice across the EU, it was also featured at an international disability conference in Qatar by one of the headline presenters. The project has significantly improved independence/autonomy of Wheeitop candidates and shared best practice with schools/colleges.

Scope’s ability to **influence manufactures** through partnerships have also been vital to improve current and future design of equipment. Successes include rectifying memory faults, increasing functionality and improving music applications.

Last but not least, Wheeitop can potentially be used for other target users, such as people who suffered from strokes or neurological diseases and have partially lost their communication and/or mobility abilities as a result, as well as the elderly.
**Barriers**

Lack of technical support in partnering schools has meant that the Wheeltop project team at Beaumont College have had to provide additional expertise and support to that originally forecast.

Additionally, possible change in party in British government could change political landscape and therefore risks the success of No Choice, No Voice being overturned.

Furthermore, practitioners from the Wheeltop project have observed that there is still a considerable degree of technophobia. Discussions have highlighted that in general both the children’s and adults’ workforce had little understanding of new technologies which impacted on their confidence in using them in their day-to-day professional lives. Those professionals who do have a specific remit in ICT tend to have little support to develop their skills or be supported when necessary.

**Policy suggestions**

For teachers, educators and teaching support staff, the situation may improve with the introduction of new technologies into the curriculum and as part of mainstream education policy. Increasingly, there is a need for the whole of the workforce to be comfortable with technology and have a level of competence which enables those they support to participate in any given setting. In light of this there is a growing role for ICT co-ordinators to become integral parts of the children’s and adults’ workforce and act as a support function for professionals working in the AAC field.

The Government, and possibly the EC, should provide guidance for local agencies on the pooling of budgets to deliver high-tech assistive technology. It will also be essential for governments and for the EC to recognise the needs of disabled people with communication impairments; this will include:

- Identifying the number of people with communication impairments (currently unrecorded) through appropriate research;
- Acknowledging a right to communication equipment and ensuring the necessary sustainable funding and frameworks are in place to achieve this;
- Developing expertise and specialist services to provide this equipment and support.
4. Employers’ Forum on Disability – Business Taskforce on Accessible Technology

Interviewees:
- Susan Scott-Parker, EFD, Founder and Chief Executive of Employers’ Forum on Disability (EFD)

Abstract: an NGO brings together major industry players to push for higher accessibility in the world of technology and for higher recognition of the problem that people with disabilities may face within a technological working environment.

EFD is the world’s leading employers’ organisation focused on disability as it affects business. It works to the mutual benefit of business and people with disabilities. EFD is supported by a growing list of members from UK business, multinational corporations, SMEs and the public sector. It is widely recognised as setting the standard for disability related corporate best practice. Nearly 400 employers are members of EFD and 20% percent of all UK employees work for EFD members. The President is John Varley, Group CEO Barclays Bank.

In the early 1980s the UK government was mainly responsible for helping disabled people find employment. The quota system, dating from World War 2, requiring 3% of employees in an organisation to be registered disabled, was ineffective and government schemes to help disabled people into work took very little account of employer needs.

EFD was therefore originally created because a small group of companies got together wanting to make it easier for employers to recruit and retain disabled employees. EFD quickly launched its first guide to Welcoming Disabled Customers in 1993 because the business case for providing high quality services to millions of customers and their families was so compelling. Therefore companies pooled funds to put in place enablers such as telephone help lines, standards for best practices, guidelines, etc. In June 1986, with the backing of Business in the Community (BiTC), Employers’ Forum on Disability was formed under the auspices of the Prince of Wales’ Advisory Group on Disability with Susan Scott-Parker as its Director. It consisted of five companies: the BBC, Pearl Assurance, Prudential Assurance, Shell International and Shell UK.

In one sense, EFD is a self-help organisation as EFD members joint fund an organisation which makes it easier for the members to benefit from contribution of people with disabilities to business success. It does not help individuals directly. However EFD does help where possible to build the capacity of disabled social and wealth creating entrepreneurs, who in turn build EFD’s capacity to influence leaders in the business community.

In 1999 EFD’s first website was launched (www.employers-forum.co.uk); this was then relaunched in 2008 as wwwefd.org.uk. In 2004 EFD also launched the Disability Standard, the world’s first disability performance measurement tool and in 2005 and 2007 Disability Standard results and benchmark reports were published. The results of the 3rd benchmark will be available in autumn 2009.
Throughout its history EFD members have formed alliances and worked together to share best practice and create change in their specialist fields or areas of common interest. Some of these networks and special interest groups are:

- Broadcasting & Creative Industries Disability Network (BCIDN): this brings together the UK’s major broadcasters and others in the creative industries to explore and address disability as it relates to the media industry.
- Police & Law Enforcement Network (PLEN): this spreads best practice throughout its members and acts as a conduit between law enforcement bodies and other agencies within the public sector and beyond.
- Regional forums: these enable members to network and share best practice, while also highlighting how to make the best use of the support EFD membership provides.
- Business Taskforce on Accessible Technology (BTAT): this brings together Senior Executives with responsibility for IT and procurement from a diverse selection of EFD member organisations.

**IMPLEMENTATION AND SELF-REPORTED RESULTS**

EFD mobilises employers to enable the economic and social inclusion of disabled people and to this aim it intends to offer support in any way in which technology can help people with disabilities. This may be to access online government services, employment opportunities, or just to live their lives smarter and faster. They key concept is to **reposition disability in the mind of the employer** and society more widely so that it is seen as an issue to do with **investment in human potential**. This is especially true if we consider that 70% of people become disabled during their working lives; and 1 in 3 Europeans aged 50-64 will have a disability.

One of EFD’s fundamental activities is to collect the **quantitative and qualitative evidence** that demonstrates that getting it right on disability is key for the success of our society. The graph below illustrates, for instance, that disability increases with age, making us all - as Susan Scott-Parker quoted to us - “only temporarily-able people”. The demographics of the marketplace are changing fast as is the demand for consumers for flexible products and services which need to be carefully designed with the user in mind. This should represent a valuable business case for companies. (see www.realisingpotential.org for further data)The **50-plus generation will grow by more than 6 million in the next 25 years** and **annual consumer spending of the UK’s 50 to 69 year-olds already runs at £300bn**.
The intelligent employer response to this is to understand and manage disability alongside other components of increasingly varied working lives:

- Attraction: adjustments are needed to overcome disadvantage and it is essential not to make assumptions regarding what people can do on the basis of a label;
- Inclusion: create an inclusive workplace where everyone can contribute and ensure disabled people’s career development is not stuck in low level positions, **1 in 8 of all employees in the UK have a disability** and 3 million workers are caring for disabled people;
- Retention: incidence of disability increases – flexibility and reasonable adjustments are needed to retain corporate intelligence and maintain productivity. On average **2% of people of working age become disabled in the UK each year**;
- Enhancing Productivity **33% of workers aged 50-64 are disabled**. Older workers would like more flexible working options to replace the ‘retirement cliff’ and often benefit from disability related adjustments which enhance productivity given the impact of age related impairments

EFD wants to make it easier for members to recruit and retain disabled employees. At present, millions of disabled people are being prevented from applying for jobs –because so may employers use inaccessible on line recruitment processes i.e. forms and tests must be completed online and websites are not accessible for a whole range of disabilities (dyslexia, sight impairment, etc).

EFD also makes it easier for business and public sector organisations to serve disabled customers and become disability confident. Businesses need to focus on the ‘**walk-away financial loss**’ generated every time a potential customer simply turns away when confronted by unwelcoming service and inaccessible facilities. EFD asked 400 disabled users if they had ever taken their business away from anywhere because they found it too hard to access products and/or services, or because they did not feel comfortable with the way in which they were being treated. 82% had taken their business to a more welcoming enterprise while more than 50% of disabled customers were excluded by inaccessible premises. In comparison disability-confident service was the main factor in choosing where to shop for 37% of disabled people and 67% had sought out a business because they had heard they treated disabled people well. Increasing numbers of disabled people use the internet to shop, yet many sites
remain inaccessible – recent research found 81% of FTSE 100 websites\(^9\) do not meet basic accessible standards.

EFD positions its strategy at the overlap between the needs of organisations and the talents and spending power of disabled people. In fact, the incentives for the companies are all self-motivational: for instance, they might want to hire better workers or they might want to reach a higher share of customers.

- At least 1 in 3 customers in the UK is disabled or is close to someone who has a disability;
- Disability is not always visible. Many impairments such as epilepsy, dyslexia and diabetes are hidden;
- Disabled people in the UK alone have a minimum annual spending power of around £80 billion.

Finally, EFD wants to set the standard by which best practice on disability for applicants, employees and customers is measured. EFD are against ‘quotas’ for disabled employees: companies should not employ disabled people because they are forced by law, they should hire disabled people on the basis of their capability and potential to contribute to the business. If goods and services are easy for disabled customers to find and use they will be more accessible for all customers, thus creating a **business case for accessibility**. EFD’s role is to provide vital support for employers, helping them to understand the impact of disability on their business, while equipping them to remove the barriers which exclude groups of disabled people while making adjustments for individuals.

Naturally, companies were not ready to set standards for themselves 15 years ago when EFD was set up, but they have come to realise that this is necessary today and they are taking action towards designing and adopting new ways of doing things. In 2007 116 organisations **paid to take part in a benchmarking exercise** with EFD These organisations employ circa 2 million people; **80 organisations benchmarked** during the first edition in 2005 and **41 have benchmarked on both occasions**.

EFD developed the Disability Standard to establish a common understanding in the private and public sector of what constitutes best practice on disability. It is the only business-led benchmark that measures an organisation’s performance on every aspect of disability as it affects a business. The Disability Standard measures the extent to which policies, practices and business areas are disability confident, including in IT, eCommerce and eRecruitment. The Disability Standard survey breaks down into three areas: Motivate, Act and Impact.

Technology is growing too fast for industry and governments to be able to create standards to incorporate in their products and services. As part of its involvement in creating guidance for specific topics relating to the employment of disabled people, EFD published A practical guide to adjustments in employment. More than a million copies of this document have been sold. Making reasonable adjustment can be a complex process that involves several stakeholders.

\(^9\) [http://www.ftse.com/]
With support from EFD, Lloyds TSB Bank was able to write a 7 Step guide to making reasonable adjustment, to provide greater clarity for line managers and staff on accountabilities and the order of events.

EFD’s vision is to make accessibility and usability as fundamental to IT as security is now. Members believe that the time is right to define best practice around accessibility so that internal systems and external services enable rather than exclude disabled people.

For this reason, the Business Task Force on Accessible Technology (BTAT) was created in January 2008, in response to feedback from member organisations concerned about their ability to deliver accessible technology solutions to their employees and customers. There is legal, reputational and efficiency risk involved in not meeting the needs of disabled customers and employees.

Task force representatives are drawn from EFD’s gold group of members. Membership includes both the public and private sectors, to reflect a broad range of organisational needs and experience. BTAT has a growing core membership with input from EFD’s wider gold membership. As its remit is to address the business need for accessible technology, membership is limited to senior corporate purchasers of technology. The task force is chaired by Steve Lamey, chief operating officer, HMRC while Susan Scott-Parker, CEO leads for EFD.

Through BTAT, EFD members are exploring the opportunities and addressing the challenges of providing accessible technology for disabled employees and customers. The initiative specifically aims to help EFD members and their ICT suppliers to understand the business benefits of accessibility and to strategically improve the accessibility of their systems, products and services.

Where common issues are identified, EFD will facilitate discussion with taskforce members, IT suppliers and accessibility experts to help find solutions. Accessibility is a global issue and the taskforce will develop knowledge and guidance within current EU accessibility standards and in association with disabled people.

**Priorities** for BTAT include:

- Define the business case for accessible technology
- Help members measure and strategically improve accessibility performance
- Share information on national, European and global accessibility standards
- Partner with technology suppliers to deliver more accessible goods and services

Members of BTAT have worked on a number of initiatives in 2008. A focus group developed a framework to help members understand and strategically improve their accessibility performance. The result is an Accessibility Maturity Model, which has proved successful during testing. The model will move to stage 2 of development in 2009 and is expected to be launched in early 2010.

EFD’s aim is that all members worldwide will pledge to sign up to a 10 point agenda on accessible ICT. This includes a commitment to use the Accessibility Maturity Model (a 5 level
measurement tool) to improve organisational performance on ICT to a level 4. This will ensure easier access for customers and increased productivity and well-being of staff, while reducing legal and reputation risk.

The BTAT agenda developed in 2008 will be shared with all EFD gold members in 2009 in the following ways:

- The business case for accessible technology: EFD believes that there is an additional need for a business case that shows why embracing accessible ICT solutions makes sound business sense. For example, web accessibility can reduce maintenance time.
- Networking opportunities: In 2007, EFD held the first event to engage some of the biggest ICT suppliers in the UK with the initiative. Attendees including BT, Accenture, Cisco and Oracle were very receptive to working with BTAT members to improve the accessibility of technology for disabled customers and employees;
- Setting common corporate standards to be used worldwide when buying ICT related products and standards.

**BTAT member case studies**

BT Case study on reasonable adjustments for visual impairments: Trevor Peart, a business and continuity manager in procurement, experienced a detached retina in February 2006, which led to his vision impairment. Since then his line managers, right up to vice president level, have been very supportive.

“BT kept in touch while I was off, and arranged a gradual return to work plan for me to ease me back into work gently. The support I’ve had from BT has been second to none,” says Trevor, whose line manager also assisted him with a flexible working solution.

“I now work from home, which cuts down on unnecessary travel, and adjustments have been made which enabled me to remain in my role. I have a large monitor, a task lamp and I use Zoomtext magnification screen reading software”.

Lloyds TSB Case study on reasonable adjustments on website accessibility: When Lloyds TSB’s corporate banking business unit decided to develop a secure electronic authentication device for all customers to sign on to internet banking, it recognised that this needed to be accessible to customers with visual and motor neurological impairments. Consequently, it developed and patented a new authentication card and reader in consultation with disabled users. The new card and reader are fully accessible and enable disabled customers to enjoy secure internet banking.

Lloyds TSB records details of all customer concerns on a database that captures disability-related complaints. One example was a concern about internet banking...
response times, where the service level agreement could disadvantage disabled customers who found telephone or branch use difficult.

As a result it is reviewing the internet banking service so that all customer questions are answered within 24 hours. This improvement “benefits all customers, not just those with disabilities”.

FUNDING

EFD is entirely sustained by members’ fees and sponsorship and gets no funds from either governments or charities. EFD employs 35 people and has a total income of about £1.8 million, 56% of which is generated by membership fees and the remaining through publications and training packages, seminars and events, consultancy services, etc.

Gold members are EFD partners and core funders. They are vital to sustain EFD’s reputation as an organisation that inspires and challenges, while helping employers and service providers forge productive relationships between disabled and non-disabled colleagues and stakeholders. Gold members come from the public and private sector, and a variety of industries: from investment banks to broadcasters, from government departments to restaurants and supermarkets.

SUCCESS FACTORS

A stable and growing membership with high retention rates has always been EFD’s success factor, while recruiting new gold members and seeing the President’s Group grow to 43 distinguished members.

Strong commitment on behalf of the leadership has also been fundamental for the longevity and development of the EFD as well as the creation of BTAT. Engaging senior business executives on the benefits of accessible technology benefits their organisations and leads to longer term change, and means organisations need to stay engaged with EFD/BTAT.

BARRIERS

According to Ms. Scott-Parker EFD has a long way ahead in dealing with all the remaining challenges related with disability and technology. Her main concern with EFD’s involvement in the area of e-Inclusion relates to the fact that they have no resources other than those provided by their members. While EFD’s sustainability and remarkable growth over the decades has been underpinned by its members’ annual fee, this has limited the organisation’s ability to influence the behaviour of the global ICT industry.

POLICY SUGGESTIONS

Governments and, possibly the EC, need to:

• Focus on overcoming dated assumptions and fear of disability with a particular emphasis on the education of young people,
• Position employers and disabled people as valued ‘customers’ of services which help people with disability into education, training and work;
• Improve their own ability to employ disabled people on the basis of their capability and value them as citizens and stakeholders;
• Create a benefit system that has high expectations of disabled people’s employability and provides security out of employment and incentives in employment;
• Monitor the impact of legislation on both disabled people and business.
• Replace dated quotas with legislation more in harmony with the UN Human Rights Convention.

Furthermore, despite EFD’s success and high number of members, too many ICT-producing companies still fail to meet the needs and expectations of employers who need technology to enable them to access the widest talent pool, to enhance productivity for everyone and to welcome millions of disabled and older customers. The EC therefore has a very important role in pushing manufacturers to develop adjustable/accessible products.

There is also a growing need to educate ICT professionals in the principles of ‘Design for All’ and accessible and usable ICT and this demand is starting to be addressed by education providers like Middlesex University who have developed a MSc/PG Dip Digital Inclusion. The challenge is for the big global ICT companies to set the standard by developing similar training for their own IT graduates.

Undoubtedly, EFD would like to do more in the future. One of the ambitions at EFD is to find the resources to carry out investigations on the issue of technology accessibility and barriers, to update the figures and to turn them into statistics that could be used at European level; in this EFD could be financially supported by authorities.

Creating personal synergies with CEOs should also be on the agenda. People will have to come to terms with the fact that disability is part of the human condition, therefore we must all do something about it instead of ignoring it. National governments and the EC should be engaging in influencing the business culture with respect to this, for instance through MBA graduates: students leave university without having heard the world ‘disability’ and this ought to change. EFD has been taking action in this direction: President John Varley created the president’s group to enable engagement on disability at the most senior level. It is the only senior leadership body focused on repositioning disabled people as employees, customers and valued stakeholders. Involvement at this level sends a powerful message - to government, to the marketplace, to colleagues and to competitors; the message is that business leaders have disability on their agenda. More information about the president’s group is available here: http://www.efd.org.uk/about-us/presidents-group.
5. **IBM – Liberated Learning Consortium and Net4Voice**

Interviewees:

- **Sara H. Basson**, Ph.D., Program Director of the Speech Transcription Strategy from IBM Research;
- **Keith Bain**, International Manager of the Liberated Learning Consortium at the Saint Mary’s University in Canada;
- **Daniela Tibaldi**, Ph.D., Manager of the Liberated Learning Consortium at the Università di Bologna – Alma Mater Studiorum (Italy) and Project Manager of the Net4Voice project, under the supervision of Luca Garlaschelli, CIO of the Università di Bologna. She works at the DSAW – Direction and Development of the Web Activities at the Università di Bologna, as a member of the Program Management staff;
- **Ivan Traina**, Member of the technical staff of the DSAW – Direction and Development of the Web Activities at the Università di Bologna – Alma Mater Studiorum (Italy) and he participated to the Net4Voice experimentation by contributing to the editing process of the recorded lessons;
- **Mike Wald**, Ph.D., Lecturer and Researcher in accessible technologies and a Founder Member of the Liberated Learning Consortium at the Southampton University (UK);
- **Pilar Orero**, Faculty Member and Manager of the Liberated Learning Consortium at the Universidad Autónoma de Barcelona (Spain).

Abstract: one of the major IT manufacturer and a number of universities across the world meet to develop and implement a groundbreaking technology that allows to translate speech into text, thus revolutionising the way students with or without disabilities can access lecture material.

IBM is a multinational computer technology and IT consulting corporation headquartered in the United States. IBM manufactures and sells computer hardware and software, and offers infrastructure services, hosting services, and consulting services in areas ranging from mainframe computers to nanotechnology. IBM has been well known through most of its recent history as the world’s largest computer company and systems integrator. With over 388,000 employees worldwide, IBM is one of the largest and most profitable information technology employers in the world.

The Liberated Learning Consortium (henceforth the LL Consortium) is dedicated to advancing speech recognition (henceforth SR) technology and techniques to create and foster barrier-free learning environments to improve access to information. The Liberated Learning concept is based on two interrelated applications:

- Using SR to automatically caption spoken language and display it as readable text;
- Using SR to transcribe speech to produce accessible, multimedia transcripts.

The Liberated Learning concept undergoes continuous development and refinement by members of the Liberated Learning Consortium, a group of international university, not for
profit, and industry partners working to improve information accessibility through speech recognition technology. The Consortium focuses on two overall goals:

- Making the Liberated Learning concept a standard for supporting diverse learning needs in various educational environments, and
- Making the Liberated Learning model widely available as a means of improving access to information for persons with disabilities.

The Liberated Learning concept is advanced through the work of consortium members who form an interdisciplinary team to implement a portfolio of Strategic Initiatives. The Consortium designs and implements formal projects; each project typically requires the resources of multiple consortium partners who fill different roles as lead organization or collaborator depending on the focus of the research activity. Resulting innovations, best practices, and new technologies are subsequently tested and evaluated in the classrooms of partner universities and implemented in corporate and community access projects. Each Liberated Learning project is the source of feedback and input for an iterative software development cycle. Each year the consortium meets to confirm core partnership goals, identify new research directions, and outline new projects.

The current Consortium partners in Europe are:

- Universitat Autònoma de Barcelona, Spain
- University of Bologna, Italy
- University of Southampton, UK
- University of Ulm, Germany

Within the LL Consortium, the Net4Voice project aims to increase the quality of learning opportunities promoting the adoption of barrier-free learning environments and the development of innovative methodologies which use speech recognition (SR) technologies. SR technologies can automatically transform a lecturer’s speech into digital text in real-time, generating an electronic transcription of the lesson or conference ready to be printed or delivered through different devices and channels. The speech-recognition technology runs on a statistical model that is fed with data; these data and models are different for each language and must therefore be developed in a highly case-specific manner. Unfortunately, collecting data and building models is costly and time consuming (especially for non-phonetic languages such as English) and very few models are currently available to run the technology.

Net4Voice started in December 2007 and ends in May 2010. Three European universities (University of Bologna, Italy; University of Southampton, Great Britain; University of Ulm, Germany) and two high schools (Iris Versari High School, Italy; Totton College, Great Britain) are partners in the Net4Voice project, which consists of testing voice recognition techniques and methods within a variety of learning contexts. The need for these organisations to support the learning process with non-traditional technologies derives from the fact that teaching material is not easily accessible to users with disabilities in different learning contexts. The
exploitation of interactive technologies helps students to learn by doing, receiving feedback, and continually refining their understanding. This facilitates participation in lifelong learning by people with various needs.

IMPLEMENTATION AND SELF-REPORTED RESULTS

From the technology perspective, IBM began developing speech recognition technologies 35+ years ago. However it was Saint Mary’s University in Halifax, Canada that approached IBM in 1998 to start implementing it as a captioning/transcription solution. When the initiative was launched it was aimed at deaf people and people who were hard of hearing. However, as the project developed, researchers realised it was useful for a number of other groups: i.e. non-native speakers, people with physical and learning disabilities, etc.

IBM provides numerous research grade SR technologies and technical support to the Consortium as an in-kind contribution. The Consortium operates on the basis of membership fees and research/project grants. Saint Mary’s University hosts the Consortium’s infrastructure and support services. As such, it appears to be a private and public partnership.

The main strategic objectives, research directions, and R&D initiatives are chosen at the university level by each of the participants, usually in collaboration with other members. IBM provides leadership for core SR system development, and Saint Mary’s supports implementation. Other partners, such as Southampton, design technology extensions that work with core SR systems, enhancing overall usability and transferability. Some members are permanent (i.e. the above-listed European universities), whereas some institutions are only temporary members (i.e. Istituto Professionale di Cesena of the Net4Voice project. Full members participate at an overall governance level, and contribute to setting Consortium parameters, priorities, and strategic direction. IBM remains available for assistance on any technological aspect of the implementation, as well as to collect feedback, to adjust the technology, and to develop improvements.

Figure 14: LL technology being used during lectures

The University of Bologna - Alma Mater Studiorum, Italy is the first Italian university to join the Consortium.: the Direzione e Sviluppo delle Attività Web (DSAW) is the department responsible for the implementation of the LL initiative within the Bologna University; the office belongs to the Administration and Management Team and generally deals with all the technology and web services internal to the University.

The DSAW had therefore been in touch with IBM for many years as one of its suppliers and, in 2006, joined the LL Consortium after learning about their experience in order to introduce
technology in the educational curriculum of the University. The DSAW therefore aims to integrate technology in the teaching, rather than just use it as a communication tool.

Since 2006, Università di Bologna - Alma Mater Studiorum has been involved in the preparatory activities to join the Consortium and to adjust the teaching for the introduction of the speech-recognition technology, after which the University was ready to launch its initial experiments involving the students. The leadership role of the Direttore Generale of the university has been very strong since the beginning, while synergies have been created since the very early days of the projects with the top management and with external stakeholders (i.e. disabled students’ families).

In particular, two lecturers have been experimenting with the technology within their courses to support students with disabilities and with language-skill deficiencies. For this purpose the DSAW has been co-operating with the Disability Office of the University, which provides disabled students with printouts from the lectures (also in Braille if needed).

In April 2007, the option to apply for EU funding arose within the Lifelong Learning Programme – Key Activity 3 (Development of Innovative ICT-based Content, Services, Pedagogies and Practices for Lifelong Learning) together with a number of partners. This has covered about 70% of the Net4Voice project costs (about 500,000 euros to finance 2/3 course per partner for 2 years plus a six-month extension from 2008 to 2010), while the remaining 30% has come from each of the partners (about 700,000). In fact, the Net4Voice partnership was set up especially to apply for the funding scheme.

More intense activities and research are carried out on how to enrich traditional ways of teaching and learning, while more general objectives aim to support not only disabled students but also foreign students and anyone who may face learning difficulties. The project therefore develops a multi-channel learning method:

- Written notes are posted online after each lecture;
- Lectures are subtitled in real time.

The technology provides added value in the sense that the students can now take advantage of:

- Digitalised text from their lectures, as well as from any other lecture they may want to read about;
- Real-time projected text;
- Lecture re-elaborations made available on the web (there is scope to add video and audio content to the written notes, as well as the possibility to provide students with the possibility to interact on the text through web 2.0 collaboration tools).

Lecturers have welcomed the initiative and have benefited from the opportunity to revise and improve their teaching methods – i.e. by adjusting their presentation styles such as their tone of voice, accent, jargon and terminology, etc. It is probably worth remembering however that only two lecturers are participating in this experiment on a voluntary basis.
It should be stressed that the technology does not represent a threat for interpreters and/or support workers who work with disabled students. Their job remains absolutely essential for the students, either when they leave the lecture room or during lectures; as for the latter, two are the main reasons: students may face other disabilities beyond their hearing loss and, most importantly, students may need to interact with the class (i.e. when working in teams) thus needing an interpreter to step in where the technology cannot help. Furthermore, other students with differing disabilities who do not require interpreters benefit from their presence.

IBM and the other Consortium members receive feedback from each university after they have introduced the technology. This is mainly done so they can improve the implementation techniques and the actual software, namely on:

- Usability of the technology interface;
- Language aspects;
- Accuracy: this has been a primary area of study for the Consortium and represents a complex challenge. Transcribing university lectures is extremely different than other SR tasks, such as basic dictation, given lecture style speech is linguistically and acoustically different than read or dictated speech. A full exploration of accuracy issues is beyond the scope of this study, but the Consortium has published many articles about this important aspect of Liberated Learning. Generally speaking, low accuracy can require high human intervention, which in turn is costly, time consuming and prevents scalability. In fact, it is calculated by the Università di Bologna that for every one hour of lecture it takes 4 hours to correct errors and produce a verbatim transcript. However, SR generated transcripts that are not 100% accurate, can still provide many learning benefits to various students.

To improve recognition accuracy, the first task is to ensure the right statistical models are being used for the task at hand. SR systems use a combination of statistically derived acoustic and language models to perform recognition at the algorithmic level. The current SR models being used in Net4Voice were created using either ‘dictation’ focused or broadcast news speech corpora. These corpora include large volumes of data based on samples of read, written language. To maximize captioning and transcription of university lectures, which attempts to recognize spontaneous speech, the underlying models should ideally be created using an appropriate corpus (actual, transcribed lectures). Although IBM and the Consortium are trying to improve the technology by focusing on capturing lecture transcripts, the process is very costly and they have not yet found government support for this activity. According to the Consortium partners, governments need to acknowledge that there might not be a viable market interest in improving this application. If market forces won’t underwrite this necessary development, then alternatively an interest in better accessibility and education outcomes, especially for learners with disabilities, should drive investment in this work.

Other measurements such as tracking students’ academic performance is up to each university to collect and evaluate. Some feedback results on the impact of the technology are being collected within Net4Voice; however these will not be processed and released before May, when the project ends. Nevertheless it is anticipated that the two secondary schools involved
in the pilot will provide good feedback on these aspects, i.e. on students’ improved performance (higher marks, interest, attendance, etc.).

The main beneficiaries of the project are individuals that are clearly disadvantaged in traditional and non-traditional learning environments, as deaf or hard of hearing students that cannot access spoken content without intermediary support. People with physical disabilities, that cannot take their own notes and some with various learning disabilities, struggle with auditory, visual and tactile challenges. People without disabilities besides can also experience difficulties in accessing information under certain conditions; for example, second language learners, and all students in general, can take advantage of these technologies which enable them to exploit the available multimedia transcriptions a second time, after the lesson, by reading and listening to the lesson content again – anywhere and whenever they wish. This is also true of mature and lifelong learners. This happens because, after the lesson, the software saves the speech recognition generated transcript, audio, and PowerPoint slides as streaming media files. This allows students to select lecture information that suits their individual learning preferences. In addition to text transcripts, the software creates a series of files (SMIL, XML, WAV, RT, RTF) that can easily be published on the web, creating a rich set of teaching resources for all the students (Wald M. 2006). Moreover, Net4Voice supports teachers, professors and academic staff in taking a proactive, rather than a reactive, approach to teaching students with different learning styles. It provides educators with a practical means of making their teaching accessible, and improves the quality of teaching in the process.

The experiment was planned as a cycle with three main phases:

1. Registration during lectures based on power point slides;
2. Offline correction of transcription and generation of the updated voice profile;
3. Upload of the new profile.

The equipment used during lectures consists of a lap top PC and a wireless microphone; it can be set up at the beginning of each lecture module with very little interference with the lecture itself.

For collecting feedback on the test (still in progress) and evaluation of results achieved, questionnaires were prepared and interviews were conducted, which have already revealed some important results and considerations (reported in the next chapter). The short-term expected outcomes of the experimentation are:

- Experiment with speech-recognition technology across a wide range of subjects, testing all the opportunities offered by this technology and the adoption of multi-channel learning methodologies;
- Test and validate learning methodologies that can be shared with other educational institutions in order to create a stable and broader network;
- Provide educators with a practical means of making their teaching accessible, and improving the quality of teaching in the process.
The main expected findings will be to ascertain and verify which information and communication technologies are effective means to improve the quality of educational processes, especially in terms of accessibility and effectiveness. The project also expects to validate the assumption that adoption of a universally accessible learning methodology helps to promote a better quality of education for the whole community.

In realising that some aspects of technology research do not bring direct benefits to educational institutions, Dr. Mike Wald from the Southampton University has taken a different approach and, as leader of the initiative within his institution, he has decided to use the technology exclusively for what it can do to help students. This has meant not displaying the real-time transcription option available through this technology and instead simply use speech recognition to assist in the creation of written synchronised transcripts to be posted on the website after the lecture has concluded, along with any notes.

As a matter of fact, while the technology can be over 95% accurate for dictated speech currently the technology is only about 70% - 80% accurate in transcribing live ‘lecture’ speech into text and it is highly difficult to correct notes live for the remaining 20% - 30%. Dr Wald developed a real-time editing system to try and correct notes live and with a 90% accuracy of the speech-recognition technology, this would be able to virtually guarantee complete accuracy of the text; however, because the speech-recognition’s accuracy is currently limited to about 70% -80%, the real time editing performs at much lower accuracy rates than its potential. Correcting notes after the lecture is incredibly time consuming and it has required a number of students to be involved in this activity after each lecture. During the fall semester of 2009, Dr. Wald would also like to involve more students in the note-improving activities so to make notes available for all the courses.

Additionally, the team involved on the project led by Mike Wald has developed a web-based application called SYNOTE\textsuperscript{12} to use as an add-on to the speech recognition. The application allows anyone to create synchronised bookmarks or ‘Synmarks’ that can contain notes and tags synchronised with audio or video recordings, transcripts and slides/images and can be used to find and replay parts of the recordings. While other software may allow users to bookmark, search, link to, or tag the whole of a web-based audio or video recording, SYNOTE allows users to easily find, or associate notes or resources with part of that recording.

Furthermore, the case of Southampton appears to differ from the other European cases within the Consortium, particularly with reference to ethical aspects. There is very specific ethics regulation in the UK related to research experiments, which the University of Southampton is naturally required to abide by also within its activity for LL. This applies even more strongly due to the fact that the project is being partially financed by Lifelong Learning and is therefore defined as an experimental research in education, which by definition must involve people. Students have the right to withdraw from the experiment and so Dr. Wald and his team therefore made a decision from the earliest stage of the project to do anything possible to prevent the pilot tests from potentially ‘harming’ any of the students (e.g. displaying a transcript with errors might distract students from their learning). Options were considered,

\\textsuperscript{12} www.synote.org
namely running parallel classes separately for the experiment, but this would have entailed additional unbudgeted costs to pay students and this could also have affected the validity of their feedback.

Also, concerning ethical and privacy issues, their collaboration with the Disability Office is much trickier than for their European partners as the Disability Office can never, for any reason, release personal information on specific students without their permission. Their advice has therefore always been restricted to general issues concerning the technology and different disabilities.

Furthermore, it is worth noting that disabled students in the UK are allocated a Disabled Student Allowance from the government to spend freely on anything that may support them in coping with their disability. More specifically, the money is granted directly to the students to get all the support they would not need, had they not faced their disability. Therefore, whilst in other countries universities deal directly with all their students’ disability needs (speech-recognition technologies falling within the support tools they may decide to adopt), the University of Southampton cannot expect its students to spend their allowance on using the technology for a number of reasons: the technology is not, as a matter of fact, a commercial product as yet and therefore cannot be purchased by the students; the technology is not accurate enough to provide them with the support they need without additional personal support; the technology is not “bi-directional”, meaning that it can translate lecturers’ speech but it cannot translate students’ speech (disabled students are therefore ‘lost in translation’ whenever other students ask questions or if they have to work in groups). On the other hand, interpreters who accompany students to classes may often be unable to cope with the highly-specific information and language that is dealt with during lectures.

Funding

Each university finances its Consortium membership fee (about 7,500 euros paid to Saint Mary’s University, either through internal sources, national or through EU funding schemes) Saint Mary’s University University has, in turn, a framework contract with IBM for the use and sublicense of IBM’s software, which automatically cascades onto the other Consortium members. While SR software is provided by IBM, purchase of hardware material is financed by the Consortium members.

The technology has low maintenance costs however, due to the fact that it remains with the university when students leave. It might be appropriate to investigate whether students need ongoing support after they leave university and cannot benefit from the LL technology.

Bologna University has participated in various EU-funded programmes (other than the Net4Voice); however this was mainly done to fund dissemination activities of the project, as other funding schemes have not been made available nationally (i.e. Ministry of Education) for these purposes.
**Success factors**

Other speech recognition technologies are available on the market (although these are conventional dictation systems that are costly and inefficient and, therefore, not as readily viable as IBM’s), however, according to the Università di Bologna, the Consortium presents a number of benefits: namely, it provides support with the technology; it offers a network of partners to share experiences with, both on the educational and on the implementation aspects; participation is voluntary and thus reduces people’s resistance; by changing lectures’ habits, it actually helps them improve their teaching skills.

Keith Bain stresses that real strong partnerships have been a key success factor in the positive outcome of the Consortium’s activities so far. These have made it possible for all 20 involved organisations worldwide (these also include MIT) to share responsibilities, as well as experiences and advice. All information is freely shared within the Consortium, ranging from implementation methods for new members to take as examples to information on the different groups of learners and their improvements or approach with the technology.

The speech-recognition technology has so far helped many more than the groups intended as the original targets – namely students who are deaf or hard of hearing. It has helped students with learning disabilities (i.e. dyslexic people who may face difficulties when taking notes), foreign students who are studying in a non native language, students who may simply like to make use of written notes after class, or students who are too shy to ask questions and can benefit from going through the lecture content a second time. The application of SR would seem to foster a truly universally designed learning environment.

**Barriers**

Teachers’ feedback was extremely positive about the use of speech recognition technology in their classroom. In spite of these positive opinions and great interest, it is important to underline some aspects that need particular attention during the use of this tool; in fact when using speech recognition, it is necessary to be aware that it is not always compatible with individual teaching styles used by lecturers. For example, highly interactive classes, with multiple speakers interacting, would prove challenging for current SR systems. Moreover in the presence of disabled or foreign students, the teachers should pay attention to their presentation style because it influences the quality of the transcription. Another aspect that can create resistance for teachers is related to their information technology skills and to the performance of the technical instruments used.

In Southampton, UK, there was an issue related to the fact that the government does not finance universities to support their disabled students but finances the students themselves through the Disabled Student Allowance. This means that the University of Southampton could not request students to give up support for their teachers/interpreters and spend their budget on the LL technology. However, because IBM technology is not totally accurate yet, Southampton University offered to improve the texts with SYNOTE to make the product more appealing.
Dr. Wald also pointed out that, when applying for EU funding, the Consortium had difficulties in squeezing the project in any of the available schemes. In fact, whilst the LL initiative was not ‘blue sky’ enough to qualify for the Framework Programme, it was perhaps too experimental for the Lifelong Learning Programme and the Consortium faced difficulties in trying to work their way around the restrictions specified in the tender.

According to the University of Bologna, there are also additional barriers:

- Cultural barriers related to the lecture recordings;
- Copyright issues: lecturers taking part in the implementation may have their ideas stolen or, on the other hand, may incur higher risks of litigation for not citing their sources;
- Organisational issues: there is a general lack of personnel within the universities to develop initiatives such as this one;
- Leadership: many organisation may lack a leadership role to promote similar initiatives;
- Lack of co-operation on behalf of the Disability Office within other organisations who may be willing to take up on similar initiatives.

The Consortium has also identified five key challenges that represent barriers to the Liberated Learning concept becoming more universally available as a solution for increasing information accessibility:

- **Accuracy**: ensuring the correct statistical models are being used for the lecture domain. This will reduce Word Error Rates for speech recognition generated transcription/captioning;
- **Usability**: improving overall ease of use, implementation efficiencies of utilizing speech recognition;
- **Transferability**: facilitating transfer of best practices/technologies to new applications, new environments, new language settings;
- **Scalability**: moving from small scale pilots to broader usage;
- **Sustainability**: ensuring availability of resources to support collaboration, research.

**Policy suggestions**

Keith Bain stresses that more money is needed from governments to finance applied research projects with high potential and benefits for the wider community, such as the speech-recognition software. Furthermore, he points out that the interest in widening this field of research goes beyond the industry’s market interest and actually represents the general public interest to improve the social inclusion of many people. Significant progress has been achieved where the involved organisations have the necessary resources in place, thus strengthening the primary role of funding. In particular, the LL Consortium is looking into the development of new languages to add to the model, which currently operates only on a very small set of languages and, within those, on vocabularies that do not always represent the broad vocabulary requirements of particular university lectures. This explains why there have been
considerable difficulties in improving the software so as to integrate small-community languages such as Catalan (Spain): this is not a big enough market opportunity for private companies to take up the R&D required, thus creating a vacuum in the technology application (Castellán and Catalan are in fact often mixed when spoken thus defeating the utility of the speech-recognition software which only recognises one of the two). Therefore, investments to develop “lecture” domain models and ensure that other European Union languages are supported are two immediate priorities. Otherwise, evolving standards will not be fully transferable across the entire EU community.

Additionally he maintains that, despite the market-driven efforts by private companies to invest in the field of inclusive technologies, the industry often faces heavy difficulties in testing the technology and in running pilot tests. This certainly makes room for further intervention on behalf of the European Commission for the support of private organisations.

IBM, together with the Consortium, estimates that building new language models, on the basis of existing speech corpora and know-how within the Consortium, would cost about 600,000 euro. Building models from scratch for any other research institution without the speech corpora or know-how would require at least 1 million euros. Transferring existing knowledge about how to create models from proprietary industry sources to more open, public universities is an important step.

Mike Wald from the Southampton University further highlights the need to build on European organisations’ ability and willingness to share knowledge and experience. He maintains that a technology that is useful to improve accessibility, to enhance education and to increase language interaction cannot be left to become only a business case. Action must be taken on technology that has very high potential to respond to relevant public interests.

Finally, increasing the opportunities to implement the technology and run pilot tests is vital for inventions such as the LL speech-recognition software. The Consortium wishes public authorities, including the EC, will be able to do more in the future to support this aspect of research. Having Consortium representation from all European Union states, and having full system availability in all languages, can be achieved with the right strategies, partnerships, and investments.
6. Inforum - Online Grandparent-Grandchild IT Competition

Interviewees:
- Gabor Dombi, Secretary General INFORUM;
- Judit Farago, Managing director INFORUM

Abstract: INFORUM has developed a scheme to lobby for government reforms on IT-related issues and to raise awareness on digital literacy among senior citizens.

INFORUM – the Forum of Hungarian Organisation for Information Society - is an umbrella organisation that include only NGOs and not for profit organisations (no private sector companies).

While selected for the initiative “Online Grand Parent-Granchild IT Competition” (an awareness-raising activity on the issue of digital divide among the generations), INFORUM is interesting also as an example of those network building or advocacy initiative. For this reason below we first treat INFORUM for its general activity and then we focus on the initiative.

INFORUM

Basically, the organisation pursue three goals:

1. Work as a pressure group on politics and on public administration to push the Information Society and e-Inclusion as a pillar of common speech and of civil society building in Hungary;
2. Raise awareness of generational digital divide;
3. Work as the Internet Ombudsman to protect users and consumers rights.

From their perspective their most important achievements were in lobbying and they claim that they had a very crucial role in:

- The setting up in 2003 of the Ministry of informatics, later disbanded in 2006;
- The setting up, as a remedial action to the disbanding of the above cited ministry, of a Parliamentary Committee on e-Inclusion and the issuance of a Parliamentary Declaration on e-Inclusion. The Committee is today in Hungary, according to them, the only place where e-Inclusion issue can be discussed and from where some awareness raising activity can be done.
THE INITIATIVE

According to INFORUM it is the lead entity and only player and confirmed that for the more general activity it is an umbrella organisation.

The initiative targeted the young and the elderly at national level and it has been running ever since 2003.

In 2008 they reached 150 pairs (grandchild and grandparent) so 300 individuals, which means they spent 100 euro per reached participant. However, they do not keep track of how many of those participating to the competition then continued in the use of ICT and become regular users.

A couple of film documentaries have been produced as one of the result of INFORUM activity:

- ‘People and Mice’
- Film of e-Inclusion Year in Hungary.

FUNDING

For the initiative the funding was only 30,000 Euro, generated both from public and private sources.

In general Mr. Dombi maintained that the organisation manages to survive but that the amount of funding is erratic and varies a lot year by year. They also apply to calls for interests issued at national level, and participate to consortia applying for Interreg Funds but with no success so far.

POLICY SUGGESTIONS

As of today, there is no e-Inclusion policy in Hungary. The Department of Information and Communication in the Prime Minister Office is interested only in eGovernment issues. INFORUM has communicated a lot on e-Inclusion, but the government has not done much. On the other hand, the government is focused on investing new EU-funded money on the development of the optic fibre infrastructure, but then fails to develop appropriate content and to target disadvantaged groups of users. Nevertheless, Hungary needs the diffusion of digital literacy and skills, especially among the elderly (only 6% of those aged above 65 use the Internet) in poor and isolated rural villages, much more than new pipes that will go deserted.

Mr. Dombi claims that even within the European Commission, e-Inclusion is not provided with enough funding and is incapable to shape Commission’s policymaking on overlapping issues,

He further adds that the Commission should establish a horizontal task force coordinating all the DGs that may be concerned with digital inclusion in various ways and can provide financial support.
The European Parliament should also establish a Committee on e-Inclusion and there should be new ways and channels for NGOs to interact and cooperate directly with the Commission without having to go always through the national governments.

Mr. Dombi strongly voices the need to establish an ad hoc body dealing with e-Inclusion issues in Hungary, as policymaking was much more effective when there used to be a Ministry of Informatics appointed within government, who devoted more attention and resources to e-Inclusion.
7. **Intel – Log on, Learn + Computer Clubhouse**

As a subsidiary of a multinational company with large investment in Ireland, Intel has a strong policy to reach out and engage with the local community. Its policy includes a wide range of interventions, as a funder and trusted advisor to various local bodies such as libraries and nursing homes. However, e-Inclusion is a strong topic not only in its CSR activity, but across different business units, for example in the field of tele-care. e-Inclusion is perceived as strategic for:

- building strong bonds with the local community and gain acceptance to Foreign Direct Investment,
- opening up new market opportunities in segments of the population currently not using IT; and
- building an adequate skills base in the young people.

And this is not just a corporate effort: individual employees are often involved as volunteer trusted advisor or trainers in local initiatives.

We here focus on two initiatives of specific scale, and point out to other initiatives in the conclusions.

### 7.1 LOG ON, LEARN

**Interviewees:**
- Lisa Harlow, Intel Ireland, External Relations Manager;
- Evelyn Pender, Intel Ireland, Project Manager;
- Colin Machale, Intel Ireland, Country Manager, Sales and Marketing.

**Abstract:** initiative aims at increasing IT appropriation among the elderly through one-to-one training.

The Log On, learn rationale was provided by the failure of traditional IT courses to guarantee sustained take-up of IT by elderly people. INTEL carried out primary (focus group) and secondary research and identified the need for one-to-one training that enabled people to appropriate technology in their daily life. Furthermore, training should be delivered in safe environments and at daytime.

The problem of the one-to-one training is obviously its cost.

INTEL employees came out with an innovative solution, by tapping creatively into available resources: school IT laboratories and transition years student, i.e. 15 years student who in the Irish education system are taking time off school to carry out work and other social activities.

Therefore, they designed a simple, 8-module training course where teen-agers give one-to-one training to elderly people, in their school IT laboratory, under the supervision of their teachers.
The project was launched in October 08 with a pilot in 20 schools training about 300 people. Following immediate success, word of mouth and a TV advert, the project took off virally, involving 150 schools and 3000 trained people in May 09, and 240 by September.

Figure 15: elderly learners do their ‘homework’ with teenage tutors

IMPLEMENTATION AND SELF-REPORTED RESULTS

The INTEL project involves as partner Microsoft and the Irish Post. The latter has been particularly responsive and provided funding for a television campaign to raise awareness and invite people to participate, which proved instrumental to leverage participation and grow virally. Schools are involved as key stakeholders and intermediaries to organize the courses, thanks to the voluntary effort of students and teachers. One contact point is established in each school to link with INTEL. Crucially, the support of the Ministry of Education paved the way towards involving large numbers of schools and overcoming possible bureaucratic barriers.

INTEL devoted significant internal resources to the initiative, also in view of its success. One person is devoted full-time to the management of the initiative. INTEL employees built the course methodology and content, which is distributed online, so that it can be updated easily and remotely. This includes training for trainers on how to implement the course and concrete methodological details such as the positioning of the trainer and the trainee during the sessions.

FUNDING

The project is mainly run on non-monetary contributions by sponsors, and available resources such as students time and IT laboratories in schools, as well as the voluntary effort of teachers. The main real cost has been the TV ad campaign, which has been covered by the Irish Post.
Success factors

The main success of the project has been to leverage available resources and design an appropriate mix to ensure viral growth. It meets different needs:

for student, the opportunity to employ usefully the transition year, developing teaching skills, improvement of IT skills, the satisfaction of making a difference

for elderly people, the possibility to learn how to use IT services in their daily life, such as booking a flight, accessing government service, health information, as well as the social interaction with youngsters

Another key reason of the success is the one-to-one training, which makes it much easier to integrate IT in the daily life needs, rather than as a tool in itself. This one-to-one relation transforms the training in a participatory and social event. “Many participants would have attempted a computer course before, but failed to complete more than two lessons,” says Sindy Deady-Henry (quoted in an internal report), a teacher and TY Coordinator in County Galway. “Now, due to the one-to-one nature of the modules, participants are more confident to ask questions, confirm what they know, and progress with confidence. They are moving faster than we anticipated, and their friends are requesting a place in the upcoming course.”

Because of its modularity and reliance on existing resources, the project is easily scalable and has experienced viral growth. The existence of one single central point of contact, the national ministry of education, which supported the initiative, ensured easy uptake by other schools.

Graph 4: Log On, Learn increasing success

This viral take-up has been made possible by a dedicated strong communication activity, mainly through the TV ads.
**Barriers**

The economic crisis is likely to reduce companies' investment in this field, but will not strongly affect this project, which relies strongly on voluntary and available resources. So far, it has proved difficult to export in other countries, where teachers are unlikely to volunteer in support of the initiative, and there is no single central point of contact for such initiatives.

**Policy Suggestions**

The project seems to highlight the opportunity to leverage existing resources, such as e.g. the European Voluntary Service, for similar activities.

It also points out to the importance of one-to-one training, the need to raise awareness on similar initiatives, and the importance of having one single point of contact.

The modular approach adopted by the project is instrumental in ensuring its upscaling.

So far, Intel has not tried to replicate this project in any other country; however other countries are starting to show an interest.

On the other hand, the project has received the Irish industry award on CSR at http://www.ictexcellenceawards.ie. It would be reasonable to look for similar initiatives in other EU countries or at EU level.

**7.2 Computer Clubhouse**

**Interviewees:**
- Ciaran McGuinness, Computer Clubhouse Dublin, coordinator;
- Janice Feighery, Computer Clubhouse Dublin, coordinator.

**Abstract:** The clubhouse is a worldwide initiative launched by Intel to provide a creative and safe after-school learning environment for young people from under-served communities.

Young people from disadvantaged communities work with adult mentors to explore their own ideas, develop skills, and build self-confidence through the use of technology. The clubhouse does not provide basic IT skills, but teaches creative applications of IT. The model of learning was developed by Media Lab at Massachusetts Institute of Technology (MIT) and the Boston Museum of Science.
Using the "original" Clubhouse as a model, the Computer Clubhouse Network supports community-based Clubhouses around the world, providing over 25,000 youth per year with access to resources, skills, and experiences to help them succeed in their careers, contribute to their communities, and lead outstanding lives. The ongoing vision of the Intel Computer Clubhouse Network is to proliferate the highly successful Clubhouse learning approach and establish it as a replicable model for technology learning in community-based organizations around the world.

There are 2 clubhouses in Dublin, of which we visited one located in the Digital District. Its target users are between 8 and 18 years old.

IMPLEMENTATION AND SELF-REPORTED RESULTS

The project is funded by INTEL, which funds local initiatives of local NGOs for the first three years and seeks to ensure the clubhouse is sustainable after that. It is therefore a partnership between a community organisation and a large corporation.

The centre is equipped with state of the art technology in order to enable youngster to develop creative skills. The focus is not IT but creativity. Youngsters learn advanced IT skills, programming, graphic design, building games etc. This provides invaluable motivation and reward to students often at risk of school dropout. In addition, it equips them with precious IT skills, valuable in the workplace.

The Clubhouse members use industry top of the notch software such as the Adobe Creative Suite (Photoshop, Premiere, InDesign, Illustrator, Dreamweaver), Final Cut Pro, Google Sketchup, Garage Band, 3D Game Maker and Mission Maker. The Mentors offer one-to-one guidance to the members which is invaluable in building their confidence. The programmes are all based around an informal social constructivist approach which allows members the freedom to experiment and explore their own creativity, while availing of the support, experience and encouragement of Mentors. A typical volunteer is asked to commit to 2 hours per week on a designated day for six months.

The project was launched in 2003 when MediaLab Europe was set up in Dublin, in order to bridge the divide with the local community. After MLE left in 2005, a local community organisation took over the management of the Clubhouse.

The projects involved 70 youngsters in the last year, aged between 8 and 18.

Independent studies carried out by SRI International, an independent, nonprofit research institute confirmed the positive impact of Clubhouses on young users. Members who visit
more frequently the Clubhouse consistently score higher in technology skills, school engagement and problem-solving skills.

Anectodically, there is a clear visible change in the self-confidence of young people, and in their families as well. Often, after starting using the Clubhouse, they have the motivation to subscribe to broadband at home.

**FUNDING**

Current running costs are about 100K Euros, mainly devoted to the wages of people managing the initiative. Building and electricity is offered for free by local initiatives.

Computer equipments have been offered by Intel together with the Community Gain Funds, while software licenses are offered by Adobe as part of is Adobe Youth programme. The Community Gain Funds cover the running costs. All these funding were one-off and the initiative is now in a critical moment in terms of finding sustainable funding. Funding for sustainability is expected to come from public sources funding youth work programmes.
All mentors are volunteers. Majority are often university students and people working in local industries. There is a huge effort put into managing this wide network of people. The goal is to achieve one mentor for each youngster.

**Success factors**

Key to success is that these initiatives are strongly embedded in the local context, thanks to the partnership with Community Organisations.

Creativity is paramount to learning by doing, trying new things, play and creativity for learning. Digital playground is devoted to engage people not very engaged in traditional school environment, through learning-by-doing, playing and fun. Everybody is creative, not only in IT creativity terms: for example, the clubhouse offers other creative activities such as furniture and fashion design. IT is useful to introduce alternative models of learning.

The engagement of local volunteers and their willingness to teach and share is fundamental.

Another important factor is that equipment hardware and software is state-of-the-art, enabling not only creativity but also the learning of state-of-the art skills, useful on the labour market.

At the same time, this is a potential barrier as costs are higher. However thanks to additional partnerships with software houses such as Adobe, the price of software licence is already covered.

The project also benefits from being a part of a worldwide support network, which helps by providing intelligence and exchange of good practice, through regular worldwide and regional conference, as well as social networking, competitions, advice on software. It also helps, more concretely, in finding new sources of funding for innovative projects, for example in the partnership with Adobe.

**Barriers**

Financial sustainability is obviously the main challenge, but the reason is particularly interesting. The community organisation traditionally gets funding from youth work funding. However, traditional youth work funding mechanisms struggle to acknowledge this kind of activities as eligible for funding. There is a fundamental misunderstanding with funding organisations that are not able to put these kind of initiative in the appropriate policy silo (IT education, youth work). This is a paradox as this kind of initiative is probably the future of youth work, where IT is embedded into daily professional and creative activity.

Also, it is difficult to evaluate achievement as they are often intangible such as presentation skills, trust in themselves.

Finally, IT competences are not yet recognized as a policy priority, also in schools, so the Clubhouse is networking with similar initiative to raise awareness on this.

EU funding has not been looked into because of the paperwork and management burden required.
POLICY SUGGESTIONS

The main policy recommendation is to raise awareness across government on the importance and the opportunities of this kind of initiative, in order to overcome the artificial barriers to funding due to governmental structure.

Related to that, it is important to reinforce exchanges and interaction between similar organisations, in order to exchange experiences and better coordinate intervention at the local level to avoid blind spots.

There could be the possibility for large-scale agreement to reduce costs of hardware and software for e-Inclusion purposes, just as for educational purposes. As a matter of fact, through the HCI program, Intel has worked with industry, government and financial services in Ireland to make the Home Computing Initiative more affordable. This will be soon advertised on the LOL website.
8. Internet Terjeszteseert Alapítvány – WiFi Village

Interviewees:
- Matyas Nagy, ITA, Project Manager;
- Andras Nyiro, ITA, President.

Abstract: the initiative aims to provide access points and training in several rural settlements across the country.

The WiFi Village initiative (previously known as Login) is promoted by Internet Terjeszteseert Alapítvány (ITA - Foundation for the Diffusion of the Internet). Main target is the population living in poverty conditions in less developed small rural village, of which 80% happen to be Roma. The idea behind the programme is to transfer the experiences of similar programs undertaken in developing country. In this respect it is worth reporting what the President Mr. Nyiro stated “Hungary, as probably other Eastern European countries, have problems that are more similar to those of developing countries than to those of more advanced European countries: lack of basic access and skills, both of which unfortunately are not sufficiently supported by the European Commission e-Inclusion policies that are too focussed on eAccessibility and ageing well”.

ITA plays a steering role and outsources all implementation activities to other NGOs and private firms (see more infra), while to some extent the local council in the rural settlements can be considered a partner in the implementation. ITA has many supporting partners in the private sectors, among which the main ones are Intel, Microsoft, T-com, Ecunet, etc.

Within the framework of WiFi Village, ITA helps young people in rural settlements to get access to the Internet, other than supporting their education, their opportunity to find employment and to organise their community via the possibilities of the Internet. The first pilot was run in 2007 and the full roll out took place in 2008 (115 small rural village provided with PIAP, reaching out 2000 families or 6000 individuals living below the poverty line. Considering only 2008: they aimed at a total of 500 villages identified ex ante as potential target and reached 100), and the initiative is currently ongoing and in full swing.

IMPLEMENTATION AND SELF-REPORTED RESULTS

ITA built the project concept on the Bottom of the Pyramid approach; the expression refers the development of new models of doing business that deliberately target the bottom of the social pyramid – which is the largest, but poorest socio-economic group - often using new technology. In the case of WiFi village, ITA’s partners sell recycled desktop PCs under fair trade conditions, for about EUR 80.

Foundations of the participating villages purchase these computers and then resell them to local Romany people under a 4-month leasing plan. These PCs run Linux and users are trained to use Google’s web applications (Gmail, Docs & Spreadsheet). The Internet access is provided via Wi-Fi network and the entire project is based on the deployment of the latest technologies.
However, providing the network and desktop infrastructure is just the first step: on the long term ITA is planning to provide education and working possibilities. European Roma Forum has declared its full support to the programme in April 2009. Mr. Ivan Ivanov, member of the European Parliament and head of the forum, has highlighted that 10 million Romany people live in Europe, which is more than the number of inhabitants in the whole of Czech Republic, Slovakia or Switzerland. In addition Ms. Katalin Levai, member of the European Parliament, called ITA’s attention on the fact that in the Third World similar initiatives fight against social inequalities with success, while in Europe there are no programmes to assist the access of households to the Internet and PC under fair trade conditions.

The first pilot has already been launched under the WiFi Village programme: ITA installed a wireless network and leased 10 desktop PCs in Tomor village (Borsod county, Hungary). Based on the positive feedback, ITA will extend the pilot in June: in Alsószentmárton village (Baranya county, Hungary) 60 persons have already signed up to the programme. The project is just three months old but the response has been so positive that ITA is currently seeking partners and supporters to extend the programme. They are also planning to base the financing primarily on funds of the European Union, but also expect key players from the IT business to participate.

The target for 2010 is to reach 30,000 through the WiFi initiative and, within that figure, the main target is the population living in poverty conditions in less developed small rural village, of which 80% happen to be Roma. Furthermore, 92% of the end beneficiaries are unemployed, and in 72% of cases the highest level of educational attainment is elementary school diploma.

Figure 16: Romany children reached by the WiFi Village initiative

Please note that, while the end beneficiaries are the villages’ inhabitants, there is an intermediary step in that ITA publishes a call for interests to which the local municipalities have to respond by filling a very simple application form. So the input and request must ultimately come from the council of the small villages. The request is evaluated quickly and, if the village meets the requirements (poverty and unemployment level), ITA sends in the company selected as outsources to settle the infrastructure and provide training courses for the
creation of a new WiFi Village. The figure below illustrates a localisation map of existing WiFi villages throughout Hungary.

A total of 115 small rural villages have been provided with PIAPs, reaching out 2,000 families (6,000 individuals) living below the poverty line. Attempts have been made to export the project trans-border but they have not succeeded yet.

**Figure 17: localisation map of existing WiFi Villages in Hungary**

Currently, these are the partners co-operating with ITA on the project – especially on the technology (both in terms of hardware and advisory) aspects of implementation:

- **Econet** is one of the fastest growing companies of the internet scene in Central Europe. They gave place to the project office, and a stable background for operation.
- **Externet** was among the first internet service providers in Hungary, they started their business in 1996. They provide internet access and WiFi installation, and they are experts in access topics.
- **Hadrianus Computers** sells renewed PCs. In the project they offer a special price for the Netbox, they install the software, and they help the project with a lot of innovation.
- **Ipsilon Media & Marketing Consultancy** is a small and creative media & marketing consultant company, they customized the user interface of the Netbox, and they designed the homepage of the Netbox browser.
- **Port.hu** is a database company focusing mainly on program guide information. They helped set up the basics of a micro-loan fund, to finance Netbox purchases at first in Lak.
- **Balazs Faa**: Mr Faa is a well known designer, working mainly on web based project. He designed the Netbox logo.
- **Typoezis Graphic Design Studio** is known for their state of the art logos, and offline design. They created the Login logo.
- **IQSoft - John Bryce Education Centre** donated 10 PC for the project, the PCs will be used by young Romani people in Alsoszentmarton, Southern Hungary.
ITA carried out a survey to collect feedback on the outcomes of the project, which has been very well received by the end users. These were some of the results.

Why don’t you have internet at home?

- Too expensive: 80%
- Lack of skills: 22%
- Other: 17%
- Has access elsewhere: 8%
- No need: 3%
- Not useful: 2%
- Not interested: 0%

With regard to this survey question, it is interesting to observe that lack of interest is never a reason for failing to take up on technology.

Why do you participate in WiFi Village?

- Education: 46%
- Good price (affordability): 21%
- Useful: 16%
- Family reasons: 15%
- Entertainment: 1%

With reference to this, we may assume that, if given the opportunity, people tend to welcome the chance to learn and to acquire new skills, and this should serve as a driver for anyone taking action in e-Inclusion.

Have you looked for a job yet?

- WiFi Village users: 22.5%
- Control group: 7%

Again, the result shows that ICT can be a channel to increase employment or to motivate people to join the labour force.

As ITA is in the process of gathering information in the more structure fashion on the feedback results, here are a few of significant elements of success that were mentioned by Mr. Nagy:

- One guy started to use the Internet and found an old friend through whom he managed to find a 6 month jobs for himself and for other 20 residents of his village (all unemployed) in a construction site for one of the new highways that are being built in Hungary;
- Several users of PIAPs started a secondary eLearning school and were able to complete it and receive a diploma;
• One guy developed a short movie on Roma culture, put it on youtube and it has been watched so far by 90,000 people worldwide.

**FUNDING**

Total funding raised so far amounts to 1.2 mln Euro for the first year running of the project, which was provided by the following sources:

• Public funding: 1mln cash;
  o Ministry of National Development and Economics (main contributor);
  o National Development Agency;
  o Ministry of Social Affairs;
  o Prime Minister Office, Department of Information and Communication (about 30K Euro);
• Private sector:
  o € 200,000 equivalent of in IT donations from Microsoft (Windows and Office licenses, about 50,000 Euro);
  o Hungarian Telecom (WiFi infrastructure and provision of Internet connection).

Finally, it is useful to add that the PCs installed in the PIAPs are leased by the municipalities and remain the property of ITA. There are cases, however, where local municipalities provide small amount of micro-credit for those individuals who wish to buy a PC (they are renewed PC costing on average about € 100). Micro-credit is granted only to families with at least three members, of which at least one should be unemployed to qualify.

**SUCCESS FACTORS**

Managerial professionalism and approach of the 6 professionals working in ITA has been vital for the project. They all come from experience in the Private sector (IT, media and Internet, marketing and communication).

ITA is an NGO that is run exactly as a private company, with strategic planning, financial accountability, and quality control. ITA set the strategic priorities, does the fund raising and lobbying, defines a methodology and standards for implementation that are passed onto the NGOs and firms to which the implementation work is outsourced, and then they do monitoring and quality control. They also manage relations with the local council. According to Mr. Nagy such approach and professionalism is not always common in the NGO sector in Hungary.

Previous contacts of the 6 professionals with CSR executives in large private company helped securing support from partners such as Intel, Microsoft, Hungarian Telcom. Reputation and credibility of the President (he was the founder and editor in chief of the Hungarian most successful portal: ask name) was also crucial in securing public funds, despite the lack of any programme of public funding earmarked for e-Inclusion (please note: the public fund received was not devoted to e-Inclusion but were “leftover funds” that were not being not used, which Mr. Nyiro convinced the various entities to spend on WiFi Village).
Barriers

One of the main barriers is the local council, which in many cases are not keen on engaging in the initiative. There is a frightening lack of awareness as well as organisational and managerial capacity on the side of local councils, which prevents them from applying for the WiFi programme support.

Furthermore, since the disbanding of the Ministry of Informatics in Hungary e-Inclusion is a ‘bouncing ball’ that public agencies throw at each other thus leaving NGOs practitioners to hop from one office to the other and to re-package the proposed programme in different ways. Needless to say, this causes a total lack of policy framework and funds for e-Inclusion.

Possibly, according to Mr. Nyiro, the situation within the European Union and Commission is even worse. DG INFSO has recently focussed on eAccessibility and Ageing Well and there has been no money available for initiatives such as WiFi. Mr. Nyiro presented the project several times to various EC players and he was always bounced back for his initiative did not fit the policy silos structure. First, he was told that WiFi was about infrastructure and so it could not be financed. He then added the training component and asked for economic development funds, but people from that department replied that, in order to help the unemployed, the project would have to be financed within social affairs. Social affairs, on the other hand, told him this was a high-tech project. So he went for education funds, but he was told that, since his targets are not only adults, he could not apply for Life Long Learning support.

Policy Suggestions

The proposed measure to improve the intervention of the EC are straightforwardly related to the previous paragraph.

First, the Commission should remember that in Hungary and other Eastern European countries basic access and digital literacy are still a big issue and should be given more attention and funding.

Second, both for EC and for the Hungarian government there is a need to place e-Inclusion in a clear policy box or to have at least some horizontal coordination and one single clear reference point where NGOs can present their views, proposals and obtain funding.
9. Learning and Skills Network – MoLeNET and GoMobile!

Interviewees:
- Elizabeth Horne, Head of Sector of Schools and Local Authorities at LSN;
- Dr. Geoff Foot, an LSN Programme Manager for eLearning and Technology and leader of the Support and Mentoring Network within the MoLeNET Programme; and GoMobile! project manager;
- Jill Attewell, Programme Manager for MoLeNET and manager of LSN’s Technology-Enhanced Learning Research Centre;
- Danny Atwere, LSN Development Advisor for eLearning and leader of the Continuing Professional Development strand of the MoLeNET Programme.

Abstract: LSN aims to bring technology devices in support of students with disabilities to improve their learning abilities and to stimulate their interest in knowledge.

LSN is an independent not-for-profit organisation with a long history of successfully delivering government projects and programmes both in the UK and internationally.

LSN leads the Mobile Learning Network (MoLeNET) is a unique collaborative approach to encourage and support the introduction, expansion and embedding of mobile learning. MoLeNET is the UK’s, and probably Europe's, largest and most diverse implementation of mobile learning, involving to-date approximately 20,000 learners and 4,000 staff in 115 colleges and 29 schools.

LSN’s MoLeNET support and evaluation programme includes: programme management; information, expert advice and mentoring; face-to-face and on-line facilitated networking and knowledge sharing; face-to-face and on-line induction, continuing professional development and dissemination events; tools and materials; repurposed materials; action research including practitioner researcher CPD and support; programme evaluation; dissemination of research findings, good practice and lessons learned.

MoLeNET uses a broad definition of mobile learning: the exploitation of ubiquitous handheld technologies, together with wireless or mobile phones networks, to facilitate, support, enhance and extend the reach of teaching and learning.

Technologies can include PDAs, mobile phones/smartphones, MP3/MP4 players (i.e. iPods), portable multimedia players, handheld gaming devices (i.e. Sony PSP, Nintendo DS), Ultramobile PCs (UMPCs), mini notebooks/netbooks, handheld GPS and voting devices, specialist portable technologies used in science labs, engineering workshops or for environmental or agricultural study.

IMPLEMENTATION AND SELF-REPORTED RESULTS

There have been 62 projects in phases 1 and 2 of MoLeNET, each with a project manager appointed as responsible for ensuring implementation and a practitioner researcher collecting feedback on improvements.
The projects were given training by LSN before implementation was launched and they were required to draft a detailed project plan ex-ante including targets for the project and strategies. The practitioner researchers were also supported along the way through visits from LSN team members, training events, ‘knowledge cafes’ for them to share their own experience, etc. Additionally, statistical expertise was provided to the project for the running of MOSAIC, a geo-demographic analysis tool and carrying out a comparative analysis of student retention and achievement statistics as part of the evaluation of the initiative; according to LSN this has been quite costly but highly valuable to improve and to understand whether the initiative has been making a difference. It has also turned out to be useful during school and college inspections, carried out by public authorities, helping to prove that investing in technological tools has been successful in improving teaching.

College led projects have been selected by LSN through a bidding process. A communication was disseminated to English colleges to let them know that capital funding was available and proposals could be submitted to be awarded part of the funding. Colleges were able to propose projects individually or join others in a consortium and were required to make a contribution to the cost of the support and evaluation programme equivalent to 20% of the amount of capital received.

The need to use a bidding method was mainly dictated by the fact that the capital funding came from the Learning and Skills Council (LSC), a public institution and they had required that such money should be distributed equitably within the scope of the initiative. Distribution also needed to be not just to a small number of projects, not to scarcely motivated institutions, etc.).

Once selected, each college/consortia signed a ‘memorandum of understanding’ with LSN, in which they agreed to the conditions of the project.

**Case study from ‘GoMobile!’:** National Star College has been a pioneer in using technology to help learners with severe disabilities become more independent. Learners who have a range of disabilities that include speech, mobility and cognitive difficulties work on vocational and independent living skills whilst at National Star College. These impairments could make the use of handheld devices difficult. Yet, with a little ingenuity, learners and staff at the college are finding mobile and wireless technologies invaluable aids for living and learning. Learners with learning difficulties enrolled on the Preparation for Employment programme at entry level, for example, have been exploring how a range of mobile devices – including the TyTN II, Apple iPod touch and Nokia N95 – can assist them in improving their timekeeping and preparation, and in adhering to regular health and safety routines while at work.

Videos and digital images for the devices have been developed using the suite of software tools in MyLearning author for Pocket PC from Tribal. Using these resources as prompts has greatly improved learners’ independence and confidence. Those working in a market gardening enterprise, for example, can follow a video sequence to plant seeds without intervention from a workplace mentor.

Other learners have used video tutorials on a TyTN II smartphone to remind them about using personal safety equipment in the workplace, for example, putting on gloves and goggles in the
work area. These visual prompts provide just-in-time information that is an invaluable aid for learners with poor memory skills. Some have also used the GPS functionality of the TyTN II and Nokia N95 to aid them in travelling to their places of work.

**Rob’s story:** Rob is a wheelchair-based student at the National Star College who has limited mobility and memory due to a brain injury. Rob’s aim is to become more independent and rely less on his tutors to prompt him to take medication, attend lectures and eat regularly. The Nokia N95 was assessed to see whether it was suitable for Rob’s needs and then mounted onto his wheelchair.

The calendar function on the N95 can be synchronised with Microsoft Outlook so that reminders of the day’s appointments, timetable, medications and mealtimes pop up on his handset at the right times. Rob can also access the photo gallery to put a face to a name and amend his own appointments and contacts. As a result, he is able to take more responsibility for his day-to-day routine.

Rob’s use of the smartphone is also having other unexpected benefits. Rob is starting to remember regular occurrences – for example, the times for his medication – in much the same way that someone wakes up at the same time each day. And with a Bluetooth keyboard and headset, he is able to use the phone to communicate with friends and family, which has prompted greater use of his LightWRITER communication aid than he has previously achieved.

Rob’s story is one of increasing confidence and independence – the next step is to use the phone’s GPS functionality to navigate around town on his own.

You can watch Rob’s story on MoLeTV.

LSN developed and delivered a support evaluation programme. The aims of the programme were to support colleges in the introduction of mobile learning – both within the programme and in preparation for further mobile learning beyond the life of the programme; to ensure distribution of capital funding in an equitable and efficient manner that will maximised benefit to the sector. The evaluation programme seeks to develop evidence that the introduction of mobile learning can have significant and positive impact on teaching and learning.

Research carried out by LSN and by practitioner researchers, trained and supported by LSN, indicates that mobile learning can:

- Help improve students’ attendance, retention and achievement;
- Encourage and support learning at any time, in any location;
- Make learning more convenient, more accessible and more sensitive to learners’ individual needs and circumstances;
- Make learning more interesting and engaging;
- Enable teachers to maintain a supportive dialogue with learners regardless of their location, including learners who attend classes infrequently;
• Enable teachers to provide differentiated learning activities to suit different learners’ styles, preferences and ability levels;
• Encourage and support both independent and collaborative learning;
• Support revision and help learners who have missed lessons to catch up;
• Enable technological support for learning in the normal learning location;
• Help to overcome the digital divide for learners who do not have broadband access;
• Make formative assessment more enjoyable for learners;
• Support work-based learners, improving communication as well as assisting with evidence collection and assessment.

A comparison of the (mostly predicted) retention data for nearly 5,000 FE college learners (approximately half the total 2007/08 MoLeNET learners) with LSC national in-year retention rates for 2006/07 suggests an improvement in retention of 8%.

Furthermore, a comparison of the (mostly predicted) achievement data for nearly 5,000 FE college learners (approximately half the total 2007/08 MoLeNET learners) with LSC national in-year achievement rates for 2006/07 suggests an improvement in achievement of 9.7%.

In considering this information it is important to bear in mind that MoLeNET figures are based on predicted – not final, actual – Individual Learner Record (ILR) figures. It has not been possible to control for the many factors other than the introduction of mobile learning that could have affected retention and achievement. Nevertheless, the finding of the research carried out at project or institution level by practitioner researchers includes support for the quantitative findings. Nearly all (89%) of the MoLeNET learners for whom progression data was received were found to be progressing to further learning and employment.

Further reported effects of giving learners mobile technologies included:

• Improved communication between learners and tutors and between colleges and employers;
• Learners feeling more trusted and valued by their college or school;
• For some NEET (Not in Education, Training or Employment) category learners the provision of mobile technology fostered a sense of belonging.
• Work-based learners and learners with learning difficulties or disabilities feeling a stronger sense of belonging to the institution;
• Improvements in learners’ organisation and time management due to using calendars, tasks, reminders and alarms on handheld technologies.

A feedback survey was also carried with learners using text messaging and responses from 902 learners produced the following results:

*Does using mobile technology help you learn?*

• Yes: 69%
• No: 9%
• Maybe: 22%
Does mobile technologies help you learn in different places?

• Yes: 78%
• No: 22%

Does mobile technology help you learn at different times?

• Yes: 75%
• No: 25%

Does using mobile technology make learning more interesting?

• Yes: 60%
• No: 7%
• Sometimes: 33%

A MoLeNET streaming website (www.moletv.org.uk) has been developed as a video-streaming service similar to YouTube for education institutions to share educational content which can be used with mobile technologies. The platform has been organised in subject areas and can be viewed on the Internet, as well as on iPod Touch and iPhone. It also supports RSS feeds.

Several different information and media-on-demand services have been created. All MoLeNET resources and services can be found via the main website at www.molenet.org.uk.

The aim of these online resources is to facilitate sharing of learning materials and resources by education practitioners:

• To allow registered users to add learning materials for mobile devices and virtual learning environments particularly as a result of those involved with MoLeNET projects.
• To provide learning materials that can be downloaded and re-purposed by users.

The examples and tools area of MoleSHARE website shares some of the outcomes of the development and collaboration for MoLeNET Phase 1 (2007-8) and phase 2 (2008-9). Learning material can therefore be searched with keywords, it is available in various formats, i.e. video, audio, text, and it is downloadable onto any handheld device, other than ‘regular’ computers. Resources can be uploaded by the members, but they can also be edited.

Moodle, on the other hand, is an Open Source Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). In other words, it is a free web application that educators can use to create effective online learning sites.

As part of phase 2 of MoLeNET, all projects participating were expected to contribute to MoLeSHARE and upload video related content to MoLeTV. A total of 20,000 students have
been reached over MoLeNET’s first 2 years and Phase 3 starting in September 2009 will add to this number.

In activity related to the ongoing MoLeNET project, LSN (jointly with JISC TechDis) has produced a publication entitled “Go Mobile! Maximising the potential of mobile technologies for learners with disabilities” that highlights stories from the MoLeNET projects on the use of mobile technologies for learners with disabilities and learning difficulties. The results have been truly amazing and include case studies that feature lessons learnt on how everyday mobile technologies can be used for learning and teaching and, above all, on enhancing learners’ potential. A complementary DVD-ROM included with the publication enables everyone to get involved in mobile learning.

To help produce the publication LSN set up a steering group which consisted of:

- **National bodies:**
  - JISC TechDis
  - LSN MoLeNET project
- **Regional Bodies**
  - JISC RSC NW (JISC Regional Support Centre North West)
- **Education providers**
  - Aylesbury College,
  - National Star College,
  - RNIB college, Loughborough and
  - Hereward College.

The steering group’s role was to focus the project, get best value from limited funding and time scales, and to give advice and guidance to LSN and JISC TechDis throughout the project. Organisations were invited to contribute case studies and visitors with specialist knowledge visited to obtain detailed information relating to the use of mobile devices with disabled learners. An author collated and categorised the case studies so as to achieve maximum impact relating to the lessons learnt.

The DVD resource used m-learning specialists with experience of accessibility issues to derive support material that is totally inclusive.

The Case studies and DVD resource were published with the title: ‘GoMobile! maximising the potential of mobile technologies for learners with disabilities’ GoMobile! illustrates through case studies how mobile technology can enhance and transform the lives of learners with disabilities. Each case study outlines the lessons learnt and the device used so that it offers sound advice for practitioners. This exciting publication with a DVD-ROM resource offers a totally inclusive approach to teaching and learning for everyone – a toolkit for every practitioner who wishes to use mobile technologies to engage learners.

The case studies were collated with lessons learnt and 5000 copies published by LSN with a DVD ROM resource/toolkit produced by JISC TechDis. An end of project report was submitted to the funder of this project, the Learning and Skills Council. The project was disseminated at a number of national and international events:
MoLeNET dissemination event
M-Learn conference
Handheld learning conference

**Funding**

The Learning and Skills Council (LSC) and consortia led by English further education (FE) colleges have together invested over £12 million in MoLeNET during 2007 to 2009.

During the year 2007/08, approximately 10,000 learners were involved in 32 projects, each of which received between £100,000 and £500,000 of capital funding from LSC and contributed between £20,000 and £100,000 to the programme. Participating institutions also contributed a great deal of staff time, overheads, resources and enthusiasm. Colleges purchase the technology directly with money from LSC.

The second phase of MoLeNET included 30 new projects, some involving organisations from phase 1 and some introducing mobile learning for the first time. The LSC have committed a further £2.5 million of capital funding to support Phase 3 of MoLeNET.

Suggestions relating to ensuring the financial sustainability of mobile learning included:

- Enabling learners to use their own mobile devices for learning and to access college/school resources;
- Wireless networks throughout college/schools campuses;
- Taking advantage of reasonably priced data-only mobile network contracts;
- Requiring learners to purchase mini notebooks/netbooks as part of the standard equipment required for their course;
- Including the cost of mini notebooks/netbooks in course fees;
- Generally expecting learners to provide their own mobile technology and only providing it to those learners who cannot afford to buy their own;
- Enabling learners to purchase mobile technologies through their college or school and pay for these in instalments.

**Success factors**

MoLeNET has created a cultural change within the institutions that participated in the initiative. In some cases, for instance, teachers have had a chance to learn more about their students’ technical abilities to such an extent that a learning partnership has been formed where the learner takes on the technical role and the teacher the curriculum role. Facilitation, Sharing, Engaging, Supporting have been the keywords for the running of the project.

MoLeNET has helped re-design educational content and activities to include technology. In this context, they have also been working on staff development. In fact, they are collaborating
with eSkills and City & Guild to award staff with ITQ in Mobile Learning\textsuperscript{13} for staff who acquire IT skills.

Vital for the success of the project have also been the research and evaluation programme that LSN has been running alongside the project implementation; these have supported both strategies and dissemination of results.

**Barriers**

A significant Barrier to the implementation of the project has been the service received from some suppliers of hardware and network services, including delivery delays, difficulties identifying and contacting the relevant expert for to solve technical problems, service costs and lack of systems optimised for serving educational institutions rather than individual customers.

A culture of mistrust of mobile technologies in some schools together with negative attitudes and substantial training needs of some teachers has also been a barrier. The cultural and attitude problems are much less common in colleges but there is still a steep learning curve for teachers.

Most institutions participating in MoLeNET projects agreed that large-scale provision of handheld technology free of charge to learners is unlikely to be sustainable in the long term. Also in the case of mobile phones and mp3/mp4 players, many learners already own these technologies and some have expressed reluctance to carry on additional college/school provided device. Solutions are being explored and these include institutions seeking to facilitate use of learners own technologies.

The following caveats also apply:

- Mobile learning is not a single solution for delivering or supporting learning. There are many possible combinations of technology and pedagogy which may, or may not, be appropriate;
- Careful planning and preparation are required when introducing mobile technologies, particularly if large number of learners and devices are to be involved;
- Staff training, support and time to experiment, become confident with the technology and plan are critical to success;
- Production of learning materials for use on mobile devices can be time consuming and a steep learning curve is involved for teaching staff;
- The advantages of mobile learning are not fully realised if materials consist solely of existing materials simply converted to a format that fits onto a mobile device. It is necessary to start from the lesson objective, take into account the needs of the particular learners involved and establish how the capabilities of specific mobile technologies can be used to enhance delivery.

\textsuperscript{13} \url{http://itq.e-skills.com/}
In the UK several projects, most of these being MoLeNET projects, have explored the potential of mobile technologies and wireless networks for e-Inclusion.

The GoMobile! publication enabled case studies to be published from a variety of different sources and projects including MoLeNET. It gave a national overview of the benefits and lessons learnt of using mobile technology with learners with disabilities and/or learning difficulties. However, the funding was modest and the timescales tight. Further funding would allow more case studies to be collected and more active, wider dissemination to be undertaken.

The EC could improve this viable project by treating the inclusion strand of MoLeNET and GoMobile! as a feasibility study for a full 3 year project covering a number of states within the EU so as to get a broader and better insight into how mobile technology can be used to enhance people’s lives and their learning, thereby giving them e-Inclusion. An essential role that the EU could play would be in the area of effective dissemination of the lessons learnt.

Additionally, the EC could push private companies to do more, especially in terms of IT donations and financial support to initiatives that have already proved to be successful and impactful but need sustainability or additional resources for further development. They could also help to encourage private companies to think about how they can provide better, more targeted services to education.

Finally, people at LSN suspect that some other organisations are reluctant to bid for European funding because of a perception that this involves a great deal of administrative effort and they may be discouraged by unfamiliar jargon and technical terminology. This has not been LSN’s experience. However they suggest that the EC could assist by providing more tools and guides aimed at assisting potential first time bidders and new projects and by more actively promoting the benefits of taking part in European projects.
10. Mode 83

Interviewees:
• Yves Sibilaud, Mode83, director.

Abstract: Mode83 is a non-profit organisation resource centre dedicated to local development through ICT.

Mode 83 runs a range of initiatives for different kind of public, such as elderly, handicapped or unemployed, from access, to basic IT literacy, to advanced multimedia and IT skills.

This case focuses on the “job insertion” initiatives, which trains unemployed in IT in order to re-include them on the labour market. The initiative locates the training in a simulated enterprise environment where unemployed people learn to build and then create audiovisual products, which is agreed with local organisations. For example, last year they created a documentary on water cycles, requested by the local authorities. The training includes state-of-the-art technologies for audiovisual production. In this way, they re-gain confidence and become ready for the labour market.

IMPLEMENTATION AND SELF-REPORTED RESULTS

The project involves 8 unemployed people along 10 months full time training. It provides practical training on state of the art audiovisual software and tools (image-audio-video processing). It is a very demanding initiative for trainees, including class work in presence and field work (interviews and filming). Rather than a simple training, it is a production project, which ends with a fully-fledged audiovisual product. It is a highly creative activity, especially if compared to typical job insertion activities such as grass-cutting, and particularly important as it gives self-confidence to unemployed people, as well as highly spendable skills on the labour market.

Particular care is taken of the quality of training. Participants are interviewed and briefed on the heavy engagement required by the project, and only most motivated participants are selected. Teachers and tools are high quality, and the skills provided are in line with the needs of the labour market.

The project demonstrated high success: absence rates are almost zero, while they are normally quite high in other work integration projects, and around half of the trained people find a job after the training.

FUNDING

Funding is covered at 75% by public money, mostly from local government, although getting it is becoming more and more difficult, as described in the “barriers” section below.

Funding comes from job insertion programmes, rather than from IT programmes.


**Success factors**

The key factor is the valorisation of the individual that comes from direct and personal engagement. A close relation with the trainer is necessary, nearly a one-to-one relation, so that the trainees feel they are part of a project, rather than the recipients of a service. This is the very reason why technology-only initiatives such as computers available in the Job Centre to upload CVs are not working.

Compared to more traditional work integration measures such as cleaning woods, this multimedia initiatives provide better valorisation of the individual, because of the possibility to use state-of-the-art tools; the inherent creativity of the work; the visibility of the results; and the high level of skills achieved. The creative dimension of the job is also very important in ensuring self-confidence and valorisation: this is the very reason why success rate is so high.

It is therefore very important that e-Inclusion initiatives have access to state-of-the-art hardware and software, which are in line with the required skills in the labour market. Using second-hand hardware and open source software only is not a viable option.

Moreover, multimedia and IT allow for creative and visible results to be achieved in quite a short time by the trainees, working collaboratively.

**Barriers**

Funding is getting more and more difficult to get, because of two reasons.

Firstly, e-inclusion is still little understood at the policy level and in the funding mechanisms. It is not a commonly accepted theme in the context of work insertion programmes. For this reasons, the project needs specific skills for fund-raising, across different ministries and institutional levels. For example, “I cannot ask the mayor funding for handicapped people, but rather for all citizens”.

It is difficult to define best practice in terms of funding mechanisms, but the worse is certainly European funding (e.g. Equal programme). It is very difficult to manage, with too much uncertainty about the rules and different interpretations given by different parts involved. And the delays are a big problem for such a small organisation: one needs liquidity of three years in advance to participate in EU programmes.

Secondly, the costs are high as both software and hardware need to be continuously updated, in order for the training to be useful and valuable in the labour market. In addition to this, it is costly in terms of human resources as personal and close contact with trainees is needed, and management requires experience in fundraising for sustainability.

**Policy suggestions**

It would be useful to develop a low cost software license for e-Inclusion initiatives, using a similar model to the education license but at even lower cost.
There is a need for a closer relation with the IT industry in order to promote the work integration of trainees.

Strategic reflection on e-Inclusion and exchange of good practices needs to be enhanced.

Raising awareness at policy level about the importance of integrating IT into existing social inclusion activities.
11. Virtual IT – Virtual Bus

Interviewees:
• Andreas Hadjoannou, Manager of Virtual IT, designer and concept innovator behind every little detail of the mobile unit and project manager of almost every project that the Virtual Bus is involved in. He sometimes goes with the unit to get first-hand experience of what the real e-Inclusion world is like. He also sits in the Advisory Committee which reports to the Ministry of Works and Communications on ICT-related matters.

Abstract: Virtual Bus is a mobile internet access point that brings facilities such as training and broadband across the Cyprus island when needed.

Virtual IT is an Information Technology Solutions and Services company and its project partner, the University of Nicosia, is an independent co-educational institution of higher education; the two organisations have joined forces to build a mobile ICT research lab named the Virtual Bus.

The Virtual Bus project is a research project with the overall objective of identifying and implementing long term methods and techniques to mitigate the digital gap, in particular between the rural and urban areas, eliminating barriers such as lack of ICT infrastructures, awareness, and training opportunities providing an Information Society for All. In addition, the project aims to provide researchers with a platform to experiment with the use of new, wireless and mobile ICT technologies, methods of training, Internet accessibility, data and voice communication technologies.

Research work includes the use and adoption of applications and information related to e-Government, e-Learning, e-Business, e-Health and Tele-working. Researchers will be training and assisting citizens in accessing the available facilities, monitoring their use and capturing valuable information. During the research the Virtual Bus will be used to test new wireless and mobile technologies and Internet security tools developing strategies for the exploitation of these new technologies and tools in rural and urban areas.

IMPLEMENTATION AND SELF-REPORTED RESULTS

Together with the University of Nicosia, in 2003/2004 Virtual IT collected statistics on internet usage in Cyprus and found out that internet usage in urban areas is 20%, whilst being totally absent in rural areas mostly due to lack of infrastructure.

The two organisations were determined to carry out further research and submitted a proposal to the National Fund to carry out a survey in two different villages, one in the countryside and one in the mountains. Free internet access points were therefore set up in the villages’ cafés, which represent the most common meeting points for the locals. University students helped facilitate access, especially with the elderly and other non-digitally advanced users. Internet was made attractive by providing people with free access to community content, newspapers (news were brought by a lot quicker than with the regular delivery vans!), etc.
It was discovered that there were user clusters that they had not thought of as potential targets, i.e. pregnant women. The two projects were intended to last for about 2/3 months but they were so successful that they were extended to 12 months and ended in 2004. However the projects were too costly (about 5/6,000 euros) and the success could not be replicated elsewhere nor further extended. Considering that there are about 300 villages in Cyprus with a population between 100 and 1,000 people each, setting up permanent internet access points would have far exceeded the available budget.

**From the internet cafes to the Virtual Bus:** success and restricted budget pushed Virtual IT and the University of Nicosia to come up with the idea of the Virtual Bus. This does not run regularly but it is only operated for specific purposes and projects. So each time the bus is used, a feedback report is submitted to the client, with case-specific information collected along the way, as well as observations made on the outcome of the project. The report may also be sent to other stakeholders. (i.e. a report on broadband was sent to the government which pushed the government to launch the building of a WI-FI infrastructure for 180 villages across the island).

They have also been mitigating the issue of internet reluctance connected to safety issues: a book has been released that is sponsored by Microsoft, plus a piece of software designed by the Cyprus Telecommunications Authority to help parents create customised filters for their kids so to let them navigate safely.

**Figure 18: an image of the Virtual Bus**

Old people were the original target users but youngsters turned out to be the most enthusiastic, thus ‘overusing’ the available access points. This is mainly due to the fact that young people are digital literate but lack access due to lack of infrastructure. Financial ability to purchase necessary equipment does not appear as a problem in Cyprus.

Virtual IT and the University of Nicosia therefore asked the priests, who act as social facilitators in the rural communities, to step in and help attract elder users who initially seemed reluctant. Newspapers served the purpose of attracting a lot of people, but Skype also turned out to be very powerful at making people come back to the internet cafés. This is
mainly because 78.5% of Cypriot students attend school abroad and Skype is extremely useful to keep in touch with friends and families.

Google Earth was also a great revelation: as it is known, a border runs through the Greek and Turkish sides thus dividing the island of Cyprus into two. This was built in 1974 after the Turks invaded the island and the Greeks attempted a coup, thus preventing people on each side of the island to cross the borderline ever again. Many people have since not been able to return to their homes or to visit friends and relatives and, unsurprisingly, Google Earth has provided a window on the other side of the borderline for many people. Mr. Hadjioannou tells us how sceptical older people seemed at the beginning and how driven they turned out to be all of a sudden, so that a few of them started using the mouse as if they had been using it forever!

Job opportunities were also an effective leverage for retired people who felt that they could still give their contribution to society. In fact, many of them were persuaded to invest their time in acquiring IT skills and do something related to IT (i.e. mentoring others).

Among the 20-25 projects developed through the Virtual Bus, two can be illustrated as case studies.

**Project 1:** Oracle sponsored the collection of statistics on kids and career aspirations and the survey discovered that IT-related careers are not as appealing as they used to be to Cypriot students. Virtual Bus therefore developed a computer-career workshop in a few private schools to raise kids’ awareness on IT careers. People who are successfully employed in the IT sector at different levels have been involved and a feedback report has been produced and submitted to the Ministry of Labour. However this has found scarce interest within the government and the issue does not seem to be raise concern.

**Project 2:** this was run on behalf of the Ministry of Labour and it was meant to disseminate career opportunities for a number of different target recipients (i.e. disabled citizens, unemployed, women, elderly, etc.) through the bus and its computer equipments. People could step in and receive a whole range of career information. This has been running for 2
years and, so far, it has ‘trained’ about 1,000 people. More people actually got on the bus, but the figure refers to those people who have returned and/or filled in feedback forms.

**Other projects:** Virtual Bus served a bi-communal project sponsored by the UNDP (UN Development Program) on several occasions. For instance, it was used at the Video Festival during which it was turned into a classroom for Greek and Turkish kids to develop their videos for the competition.

Virtual Bus has also developed synergies with ECDL Cyprus. People will (in the near future) be able to carry out their ECDL exams on the bus, instead of travelling to the school. This is especially interesting for people with mobility issues.

People at Virtual Bus are extremely enthusiastic and would like to replicate the experience elsewhere in Europe. Possibly this might then lead to the creation of a ‘virtual and mobile community’ that runs on wheels. So far they have been unable to identify the funding and to get in touch with interested organisations across Europe, except in Greece, which they have already helped set up their own bus through public funding. They are currently discussing cooperation with Jordan and the Spanish region of Galicia.

**Funding**

The project is mainly funded by the Cyprus Research Foundation, Virtual IT and Intercollege and supported by the Cyprus Telecommunication Authority of Cyprus (CYTA).

Nevertheless, funding is highly dependent on occasional financing organisations; about 20-25 projects have been run wince September 2004. Some of the sponsors who have been engaged with the Virtual Bus so far include: Cyprus Import Corporation, CISCO, Lenovo, Microsoft, Cooperative Credit Society of Strovolos, Kentriki insurance.

Currently, a proposal is being made to the government to set up web stations for users with sight and hearing impairments. Furthermore, a proposal has been made to turn the Virtual Bus into a mobile Government office, through which citizens can access eGovernment services such as pay taxes, applying for IDs, etc.

**Success factors**

The co-operation between an SME and a private university has worked very well for their scope.

The Virtual Bus is seen as a research infrastructure on wheels that can lend itself to a wide range of scopes and be shared (it is a solution for many problems and it provides value added to any ideas). It is flexible and versatile: it can be used for meetings, laboratories, classrooms, or even parties!

The Team has been good at managing sponsors and money so that they have accumulated funds that can be used to finance ideas with limited budget so that users never have to be charged for services.
Whilst funds have never represented a problem (especially thanks to private sponsors/clients), according to Mr. Hadjioannou authorities look at the Virtual Bus as a potential threat that might steal work from them. Many ideas have been submitted to the government over the past few years and many have been welcomed with enthusiasm; however very few have been turned into actual initiatives. For example: Microsoft had offered support to the Cyprus Youth Association (a governmental body) in financing the creation of an additional Virtual Bus. After two years of negotiations the Association has decided that they cannot accept money from a private organisation and the project has been dismantled.

Lack of co-operation has been so strongly felt that, even where Virtual Bus benefitted from private sponsorship, there have been issues in getting authorised by the local authorities to run the Virtual Bus in the streets.

Furthermore, subsidies are currently available to people who are willing to produce photovoltaic energy and the Virtual Bus wanted to apply for such funding (45% of the investment could be subsidised). However they have been told that, being a mobile vehicle, the Virtual Bus was not eligible to receiving funds as this was intended for buildings only. People at Virtual Bus feel that this is a shame, as money are available and could be invested in financing innovative ideas such as the Virtual Bus.

**Policy suggestions**

Less bureaucracy is paramount for whoever wants to co-operate and contribute with private means. Lack of co-operation on behalf of public organisations and total lack of PPP culture also calls for a cultural change that could be pushed and fastened by the EC.

Furthermore, more government budget is needed for ICT. ICT does not appear as a priority for the policymakers in Cyprus. There is no Ministry for technology, but a Director of Electronic Communications has been appointed within the Ministry of Works and Communications, with whom people at Virtual Bus have had difficulties in co-operating. Furthermore, at Virtual Bus it is felt that the Director’s position diminishes the role of ICT. On the other hand, an Advisory Committee has been set up, which reports to the Ministry of Works and Communications. Sitting in the Committee together with 11 other appointed members, Mr. Hadjioannou feels that not much has been done through the Committee as of today.


12. UK Online Centres & Telecentre Europe

Interviewees:

- **Ian Clifford**, Co-Chair at Telecentre-Europe and Business Development Manager at UK Online Centres.

Abstract: Telecentre Europe is a newly-founded network that brings together international telecentres to share experiences and know-how. UK Online Centres is a well-established network of telecentres within the United Kingdom, which offers courses and support on anything related with technology in deprived communities.

Our interview with Ian Clifford was particularly stimulating as we had the privilege to discuss with him the results of two e-Inclusion initiatives in which he has played a leading role, each with a specific aspect of interest: more specifically, whilst UK Online Centres is a consolidated national initiative that has so far produced many results, Telecentre Europe is a groundbreaking and promising start-up project that has already brought together thousands of organisations at European level.

**IMPLEMENTATION AND SELF-REPORTED RESULTS**

**Telecentre Europe**

Telecentre Europe is yet to become a legal entity, but since April 2008 it has been operating as a leaders’ forum for Telecentre practitioners. The forum was set up by a group of motivated people pulled together by Microsoft as a result of a gathering of leaders representing almost every country in the European Union that took place in Riga. The effort to bring together organisations from around the EU working on e-Inclusion programmes started in Barcelona in 2007. In the second meeting of this nascent EU telecentres’ network, organisations discussed ways to strengthen collaboration, establish venues to learn from each other, and find a common voice to promote e-Inclusion programmes among governments and the private sector. The success was undeniable: 60 people, 43 organizations representing 23 countries from the European Union, 3 from North America and 2 from Mexico – all of which agreed that it would be useful to connect in similar activities and issues to learn from one another. Ian Clifford himself committed voluntarily to lead Telecentre.

In a very short span of time, Telecentre went from having 60 members to about 250, all actively involved on the social networking website at www.telecentre.org. Member organisations may be operating at regional, local, or city level but they are all involved in running telecentres and in working with users directly.

Although the implementation process of Telecentre Europe has not yet been completed as the forum needs to acquire a legal entity to be fully operational, a number of resources are already available to members to kick start the sharing process. A programme of exchange visits has already been planned, for instance, to find out how everyone is coping with e-Inclusion-related issues and share experiences. Relations with Microsoft also remain very tight and collaboration is fostered for the organisation of future events. The forum does not plan to carry
out research activities in the future but does not rule out the possibility to provide support to other organisations who may find Telecentre’s expertise useful to their work.

As Telecentre Europe begins to take shape with high expectations from all its members and leaders on the positive results that it is going to produce, another similar initiative launched in the UK provides the promising evidence that aggregation is a synonym of multiplier.

**UK Online Centres**

UK Online Centres currently has about 6,000 affiliates – of which 3,000 are libraries, about 1,000 are represented by educational institutions and 2,000 by NGOs.

UK Online Centres offers courses and support on anything related with technology in deprived communities where users in more need tend to be. They have also developed a product called My Guide, which is distributed to all member organisations of the network. Users can register to use the material available online through My Guide, which includes several teaching modules on digital literacy. They also receive a free email account and they can search for useful information through a search engine (i.e. how to get a driving licence, restaurant listings in Oxford, etc.). My Guide website collects information from a wide range of sources and allows to search them in a very simplified way thus making it more accessible and user-friendly for beginners. Course material is organised in three main categories: 1) Starting modules (these include how to get started with computer equipment, basic English lessons, etc.); 2) Using modules (interest-based activities, such as applying for benefits, using eBay and social networks, or accessing eHealth services, etc.); and 3) Understanding modules (which include understanding online banking and UK politics, etc.). Additionally, the website features a Course of the Week (i.e. understanding family education). Basic courses for absolute beginners are designed to take no longer than 30 minutes; they focus on technology functionalities and consist of illustrative videos. Users are always told how long each module will take to complete before starting and, whilst all courses are only accessible upon registration and login, users are free to access these resources while comfortably sitting in their homes. Nevertheless Telecentre practitioners are ready to help at the nearest centre for any type of assistance.

UK Online Centres makes sure that practitioners get the appropriate training when a new centre joins the network and that they are provided with useful advertising and explanatory material (i.e. leaflets and brochures) to illustrate newcomers what the centre and My Guide can do for them.
By April 2008, a number of different functionalities was offered to Telecentre users via My Guide. More specifically, a staggering 1.3 million courses had been carried out and completed by a total of 250,000 users, across an overall supply of 30 modules. People at UK Online Centres give great attention to designing each module and making sure that user needs and interests are well interpreted. However it has been surprising in some degree to find out that interest in eGovernment services well exceeds interest in entertainment-related content, such as learning how to use social networking.

Accesses to the web platform have been accelerating beyond expectations, so that My Guide website is expected to hit an incredible two million accesses by the end of this year. Furthermore, about 15 new courses are being developed at UK Online Centres and will be launched in 2010 in addition to the 30 modules currently available.

One may think that UK Online Centres’ remarkable success owes to its large team of experts, but they would be mistaken. UK Online Centres relies on a very light organisational structure of 30 enthusiastic individuals who have so far worked well in creating synergies with local initiatives and in disseminating their work. There are in total 9 Regional Managers who are responsible for contacting local telecentres, in getting them involved and in signing them up (this is free to everyone). Using My Guide is never compulsory for telecentres but it is highly recommended by UK Online Centres as it has been developed with the very purpose of supporting new affiliates in helping their customers. An agreement of quality (not a contract) is then signed between the two parties, in which telecentres commit to offer a minimum standardised level of quality of service through a voluntary Code of Practice. Some centres may also act as facilitators, thus encouraging other centres to take part. There is also a Business Development team made of 4 people, a Product Team of 5/6 people who work on developing My Guide and teaching contents, a Network Team of about 15 people (including the abovementioned 9 Regional Managers), 5 people in Administration.

A remarkable quantity of longitudinal research and analysis is carried out by UK Online Centres in making sure that the services are always up to standard and meet users’
expectations. This is also part of its commitment to proving government that its work and activities are well received and thus deserve the public funding it receives.

Another collateral activity carried out by UK Online Centre is campaigning “to get people through the doors of centres” – to put it in Ian Clifford’s words. A number of specific clusters are targeted during campaigning activities, namely:

- Women between 45 and 55 years old, who tend to be mostly ‘offline’;
- Older people above 65 years of age.

UK Online Centres’ next campaign on the agenda is scheduled in October and will aim at a more general public. Events such as this one usually foresee the involvement of celebrities, through whom campaigns usually manage to make it to the headline in newspapers, radio and TV for wider dissemination. In fact, this sort of activities absorbs a large share of UK Online Centres’ budget but is also believed to yield high returns in terms of people’s interest and involvement with their local telecentres and/or My Guide. October campaign will engage England football team’s captain Robert Moore, who led the team to World Cup victory in 1966. His participation to the event is expected to catch a lot of people’s attention, especially as Robert Moore himself attempts to use technology for the first time!

Finally, UK Online Centres runs tailor-made consultancy projects for the government through separate funding. Two in particular deserve specific attention: the DirectGov project and the NHS Choices project. These are the two main web services facing citizens directly; they are so relevant to citizens that some telecentres have been funded for their employees to be trained to use them and to teach others how to access them.

**Funding**

UK Online Centres is totally funded by government, despite operating as an NGO. In fact, this is a case of quasi-non governmental organisation (QUANGO) - an executive agency charged with service delivery functions that operates alongside public bodies. Its budget ranges between 9 to 10 million Euros annually. Part of the funding is re-distributed to smaller organisations that work on the field; it is estimated that roughly 3-4 million pounds is invested to financially support 350 telecentres.

**Success factors**

According to Ian Clifford, the key lesson to be learned through Telecentre Europe and UK Online Centres with its My Guide platform is that putting teaching material online is not enough for users to be encouraged to take an interest in technology and to cultivate it. Online courses need to be produced alongside collateral support activities, such as telephone helpline and handouts. UK Online Centres, for instance, has managed to allocate part of its financial resources to helping telecentres use My Guide, to run marketing campaigns, to understand user needs, etc.
Barriers

Government’s changing scenario has by far been the most remarkable hindrance to UK Online Centres’ activity. The Department for University, Education & Skills that was responsible for UK Online Centres’ budget and results dissolved after the latest Gordon Brown’s government reshuffling and merged into the Department for Business, Innovation & Skills. This is a much bigger department, led by one of the most influential people in the UK at the moment – Right Honourable Lord Mandelson. People at UK Online Centres see this as both an opportunity and a threat: should they succeed in putting forward their agenda to the department, they will be most likely to be allocated more resources than in the past. However, should they not succeed in doing so, they will run the risk of disappearing amongst a plethora of other agencies that the department is accounted responsible for. Despite this possible threat appearing ahead, UK Online Centres’ relations with government have always been very constructive and collaborative and they will work to keep this unchanged in the future.

Funding structures have also been mentioned to have hold UK Online Centres’ team back, as no cross-sector funding scheme exists pulling together pensions, employment, health services, etc. For instance, in the past, they have been unsuccessful with applications for funds provided by the Department for Pensions and Employment.

Furthermore, UK Online Centres’ team recognises that there is a whole range of public authorities that they will most probably be unable to reach at any time in the future. These include about 150 different local and regional authorities that they are unable to connect with.

Policy Suggestions

Ian Clifford’s experience with Telecentre and UK Online Centres has been paramount to understand the value of umbrella cross-sector networks or agencies. Organisations such as Telecentre are incredibly powerful not only to pull smaller organisations and practitioners together to exchange experience, but also to centralise the collection of data and information. Most small and medium organisations involved in e-Inclusion do not, as a matter of fact, tend to gather a large amount of quantitative and/or qualitative data; if they do so, they are most likely to differ from other organisations’ data and would not allow for any benchmarking exercises or other comparisons to be carried out. This is an extremely powerful case for supporting cross-sector organisations such as Telecentre and UK Online Centres.