Supplementary Material

Questionnaire

The paper only reports the results from this questionnaire in the following areas: the availability of ICT learning technologies in the different partner countries; the availability of different types of learning technologies; and the provision of ICT learning technologies in educational institutions in the different countries. Results on the funding of ICT learning technologies in the different partner countries and additional details on the availability of different types of learning technologies are reported later in this supplementary material.

A Current Situation in your Country

Note: Question 7 deals with differences in different parts of your country, so that in questions 1-6 you should consider the situation in the largest part of your country.

1. Please list the ICT learning technologies or tools for disabled students available in your country. For each technology please:
(a) Provide a one or two sentence description
(b) Indicate whether or not the technology is available in the national language(s)
(c) Your evaluation of how easy it is to obtain this technology.
(d) If you consider it is not easy to obtain this technology, a indication of the main barriers e.g. cost, lack of information.

2. Please provide the main national legislation for your country in the following areas affecting disabled people:
(a) Anti-discrimination
(b) Access to education
(c) Access to and/or accessibility of technology
(d) Any other legislation that could affect the use of ICT learning technologies by disabled adults.

In each area please provide the following:
(i) Name of the legislation in your language and English
(ii) Date the legislation was passed
(iii) A brief summary (one paragraph) of the main measures in the legislation.
(iv) A brief description of how the legislation is enforced.
(v) Your evaluation of how effective the legislation is.

3. Provide brief information on the education system in your country, including the following:
(a) Policies and practice with regards to 'special'/segregated and mainstream education for disabled people.
(b) The main types or levels of education available with a brief explanation.
(c) How different types of education are funded and whether or not they are free to students.
(d) Decision making on curricula at the different levels e.g. is there a national curriculum for school education.
(e) What pedagogies[1], if any, are in general use in education in your country. If appropriate indicate which levels or types of education they are used in. Are you aware of pedagogical assumptions which act as barriers to learning by disabled students?
Notes:
1. Different approaches to teaching. Examples include critical, constructivist, feminist, institutional and archetypal pedagogies and there are many others.
2. funding is considered in question 5.

4. Provide information on the types of ICT learning technologies for disabled learners available in:
(a) Universities
(b) Adult learning centres
(c) Further education and vocational education colleges or centres.
(d) School education for students over 16
(e) Training centres for adults.
(f) Workplaces, if this information is available. It may be useful to provide some examples of good practice and indicate what the general situation is.
(g) Hospitals, clinics and other therapeutic centres, if this information is available. It may be useful to provide some examples of good practice and indicate what the general situation is.
(h)   Other (please specify).

5(i) Provide a brief explanation of how ICT learning technologies for individual disabled people are funded for:
(a) University students
(b) Students in further or vocational education
(c) School students over 16
(d) Learners involved in distance or adult eduction courses leading to qualifications.
(e) Other disabled learners over 16.

(ii) Provide details of any additional funding available specifically to disabled students in the above educational sectors.

6. Provide the following statistical data:
(a) Country population
(b) Percentage of disabled people in following age groups:
    (i) Under 16
    (ii) 16 - 60
    (ii) Over 60
(c) The percentage of disabled people in the following types of education
    (a) School, including the approximate distribution between mainstream and
    special/segregated education.
    (b) Further or vocational education
    (c) University
    (d) Adult and continuing education
    (e) Other
(d) If possible, please provide data under (b) and (c) for disabled people with different impairments e.g. blind people and wheelchair users.

7. If your country has any semi-autonomous regions, devolved nations or local areas with differences in legislation, education system or other factors:
(a) List these semi-autonomous areas
(b) For each area,
    (i) If relevant, provide the names of any local languages spoken by a significant
        proportion of the population
    (ii) Indicate any differences in the availability of ICT learning technologies and, if
        relevant, whether they are available in the local language(s).
    (iii) Relevant legislation which differs from the rest of the country, with details as in
        question 2.
    (iv) Details of the education system if it differs from that in the rest of the country, with
        details as in question 5
    (v) Statistical data on the involvement of disabled people in education, with details as in
        question 6.

B Situation Evaluation and Recommendations

1. Provide a brief evaluation of the situation in your country with regards to:
(a) Ease of access to education for the non-disabled population.
(b) Representation of disabled people in education (compared to the non-disabled population).
(c) Any additional difficulties or barriers faced by disabled people in accessing education.
(d) Any enablers or good practice in access to education for disabled people.
(d) The availability of ICT learning technologies for disabled people
(e) Barriers, enablers and other factors that affect access to ICT learning technologies for disabled people.
(f) Any other comments

2. In the context of ICT learning technologies for disabled people, please explain what you understand by the following terms:
(a) Good practice
(b) Satisfactory practice
(c) Poor practice
(d) Bad Practice

3. Provide a number of examples of each of the following practices in the use of ICT learning technologies for disabled people in your country.
(a) Good practice. For each example, please explain what factors make the practice 'good'.
(b) Satisfactory practice. For each example, please explain what factors make the practice 'satisfactory'.
(c) Poor practice. For each example, please explain what factors make the practice 'poor'.
(d) Bad practice. For each example, please explain what factors make the practice 'bad'.

4. Provide suggestions for recommendations to improve
(a). The access of disabled people over 16 to education
(b) The availability of ICT learning technologies for disabled people

Please indicate whether these recommendations
(i) Relate specifically to the situation in your country.
(ii) Are more general.

5. Please provide any other comments or suggestions on the use of ICT learning technologies with disabled adults.

C. Sources of Information

1. Please provide:
(a) A brief of the relevant expertise of all partners involved in answering this questionnaire.
(b) Other experts, including disabled students, consulted with a brief summary of their expertise.
(c) Full citations for the literature consulted, including journal and conference papers, web sites and books.
(d) Any other sources of information used.

Results

The availability of different types of learning technologies

General learning technologies:
1. Internet based learning management systems and multi-media learning environments: Estonia, Finland, Korea, Lithuania
2. Mainstream learning technologies which can be used by disabled people: Estonia, Greece, Korea.
3. Apps for mobile phones and other mobile devices, including speech to text conversion, screen readers and screen magnifiers and AT equipped MP3 players to read audio books and other documents: Estonia, Italy, Lithuania, Poland
4. Online reference works, such as dictionaries: Estonia, Lithuania, Poland

Subject specific learning technologies:
5. Subject specific materials (for particular disabled students): Greece, Italy, Korea, Lithuania, Poland
6. Subject specific learning materials in national sign languages: Greece, Lithuania
7. Vocational training materials (for particular groups of disabled students): Lithuania

Communication support:
8. Tools for learning national sign languages: Estonia, Greece
9. Alternative and augmentative communication systems: Poland, Slovenia

Access devices:
10. Screen readers, including JAWS and its local language versions, screen magnifiers and text to speech conversion programs: all the partner countries
11. Braille notetakers, displays and embossers (printers) for blind people: Estonia, Lithuania, Poland, Slovakia, Slovenia
12. Access devices for physically disabled people, including on-screen and large keyboards, mouse emulators and pointers: Korea, Lithuania, Poland, Slovakia, Slovenia
13. Speech to text conversion, notetaking and subtitling software for hearing impaired people: Greece, Poland

The Funding of ICT Learning Technologies in the Different Partner Countries

Access to assistive and other learning technologies by disabled people is often dependent on the availability of funding. There is considerable variation across the partner countries in the extent to which funding is available and the mechanisms used to provide it, and frequently also different mechanisms for students at different levels of education. In general, funding is targeted at students in formal full time education leading to qualifications and there is much less support for students on part time or adult and continuing education courses, and even less for those learning outside educational institutions. In many countries the funding system is complicated. For instance, in Australia it involves co-operation between the education departments of the Australian Government and the States and Territories, a plethora of allocations, grants and supplements, and specific state funding for disabled people. Most universities and larger colleges in several of the partner countries, including Australia, Korea and the UK, have a support centre for disabled students, which is responsible for providing assessments and ensuring that disabled students have the support they require, including by helping them to apply for the relevant funding for equipment or personal assistance.

In Australia, Germany, Ireland, Italy, Slovakia and the UK the full costs of equipment for disabled students can be covered, whereas in Estonia students are required to pay 10% of the costs of assistive technology and in Poland the funding provided depends on the type of equipment and family income. The available funding may also change over time. For instance disabled students in the UK are now expected to pay £200 towards the cost of a laptop, which could act as a barrier. Available funding does not always meet the need. For instance, disabled people in Slovenia are asking for additional funding for ICT and the Student II programme of the National Rehabilitation Fund in Poland only has funding to support 14 thousand disabled students. In Serbia very limited public funding is available for the assistive technology and other support needs of disabled students. Educational institutions in Serbia are largely dependent on support from non-governmental organisations through projects to provide additional equipment for disabled students and individual students are dependent on a combination of their own resources and those of such organisations.

Funding for specific technologies and support can either be provided directly to students or through institutions, either as part of their general funding or as a specific funding allocation for support for disabled students. In some countries students or their families are expected to make a contribution, though it should not be assumed that families will necessarily do this. Several countries provide both types of financial support. The types of support which are funded for individual disabled students include the following, with some of the partners countries which provide this type of support listed after the item:

Assistance provided by a person:
- Sign language interpreters: Estonia, Lithuania, Poland (in universities), UK
- Personal assistance: Australia (in schools), Estonia, Germany, Slovenia, UK
- Additional teaching assistance or teachers: Ireland, Poland, Slovenia, UK

Technology and materials
- Assistive technology: Australia, Estonia (90% of costs), Germany, Poland, Slovakia, Slovenia, UK
- Other adaptations to support the use of learning technologies: Germany
- PCs, other computing devices and learning technologies: Australia, Slovakia, Slovenia, UK
- Teaching materials, including accessible electronic books: Australia, Italy
- Production of digital or other accessible versions of learning materials: Australia, Estonia, Poland, Slovenia

Other:
- Travel to educational institution: Estonia, Lithuania, Poland, Slovenia, UK
- Accommodation: Lithuania, Poland
- Fees for weekend courses: Poland
- Rehabilitation: Lithuania, Poland
- Adaptation to premises to remove access barriers: Lithuania, Slovakia, UK

	AU	DE	EE	EL	FI	ID	IE	IT	LT	PL	RK	RS	SI	SK	UK
Assistance by a person															
Sign language interpreter			x						x	x					x
Personal assistance	x		x										x		x
Additional teacher							x			x			x		x
Technology & materials															
Assistive technology	x	X	x							x			x		x
Other adaptations		X													
Computing devices	x												x	x	x

Teaching materials	x							x							
Prod. access versions	x		x						x			x			
Other															
Travel to ed institution		x							x	x				x	x
Accommodation									x	x					
Fees for weekend courses										x					
Rehabilitation									x	x					
Adaptation to premises									x					x	x

Table 2 Availability of funding for different types of support for disabled students

A variety of different types of organisations are involved in providing funding, in some countries with differences at the different levels of education. The organisations include health services and health insurance providers and social work departments, as well as education departments.

Australia
- The central/national and/or state government provides direct funding to schools and universities for support for disabled students.
- Special programmes and rehabilitation funds such as the Disability Support Pension and Mobility Allowance are available to those aged 16 years or above.

Estonia
- The PRIMUS Programme funds regular support services, such as sign language interpreters, personal assistances and transport, and repeated one-off services such as computerisation of learning materials.
- Local government covers the cost of facilities such as transport and personal assistants.

Germany
- Assistive technology and other adaptations to use ICT for work, continued education or in primary, secondary or higher education are generally funded for disabled people.
- Common teaching and learning aids such as books and personal computers for personal use are not generally funded.
- Technical aids which are for general use by a number of students in a school rather than for individual use could be funded by the local authority the school is situated in.
- Technical aids for inclusion in work or further education are funded by the federal agency for labour.
- Health insurance providers fund technical aids for individual use.
- The German Social Accident Insurance funds technical aids for individual use in the case of impairments caused by an accident.

Ireland
- The National Council for Special Education (NCSE) funds disabled students with a diagnosis up to the age of 18.
- Funding for equipment is requested by a disabled child's special education teacher an/or the school, If approved, the cost can be reclaimed from the NCSE.
- The institution funds support for tertiary level disabled students. Applications from disabled students are overseen by the institution's disability support office, with support requirements being considered as part of the process.
- Provision for disabled students in further education depends on the course and institution.

- The Health Services Executive provides health and daily living supports free of charge. The distinction between these and educational aids is not always clear, particularly for disabled students studying away from home.

Italy
- The National Health System provides assistive technology, teaching materials and special equipment disabled children and adults free of charge.
- Students are entitled to have text books in their preferred accessible format, but there is limited information about how this is implemented in practice.

Korea
- The City Council funds assistive technology for special schools and special classes in mainstream schools.
- University centres for supporting disabled students cover the costs of new devices that the require.
- Assistive technology support centres provide assistive technology rather than funding to tertiary education institutions.

Lithuania
- Blind screen reader users are entitled to reimbursement of the cost of the screenreader JAWS.
- A Lithuanian synthetic voice and several tools for learning Lithuanian Sign Language are available free online.
- The ministry of education provides funding in vocational training.

Poland
- The Student II programme of the National Rehabilitation Fund can fund special equipment, rehabilitation, accommodation, travel to university and the fees for weekend courses for university. Funding is limited to 14 thousand students.
- Disabled learners over 16 outside formal education can apply to the Social Care Centre in their town. The funding received generally depends on the family income and the type of equipment.
- The Ministry of education offers additional teachers in integrated classes.

Serbia
- Non-governmental organisations provide most of the funding for assistive technology through projects.

Slovakia
- Equipment for disabled university students is available from European projects and a special section of the budget. Applications can be made by the student or the institution.
- Disabled students over 16 in further or vocational educational can apply to the government each year for funding for equipment and other additional needs.
- Some funding is also available from charities and firms.
- Schools have limited budgets to provide support, but can ask the Ministry of Education for additional funding.
- The Ministry of Education funds equipment and adaptations of the school environment via town councils and regional offices of the Fund for Support of Students with Disabilities at universities. This support is available to overseas students studying in Slovakia.
- Direct payment can be used to purchase devices if they are also used outside the school and support wider inclusion not just education. The student's family has to make a contribution.

Slovenia
- Part of the budget for special schools is allocated for obtaining assistive technology.
- Sometimes mainstream schools allocate part of their budget for obtaining needed assistive technology, but frequently other financial resources are used, such as donations and finance from disability or student organisations or the town council.
- The national and/or state governments provide additional funding to disabled students in upper secondary and tertiary education who receive a government scholarship and 85-100% funding for ICT for students with sensory impairments. They also directly fund the education of disabled students in public schools and universities.
- Non-governmental disability and student organisations provide additional funding for equipment in schools.

UK
- Local Authority Children's Services fund equipment and support for disabled school children.
- In addition in some areas funding is available from Children's Trusts, as well as Social Services in England and Wales, Social Work Departments in Scotland and Health and Social Services Boards or Trusts in Northern Ireland.
- Schools often receive funding for specialist equipment for a specific student, but the equipment or technology can be shared.
- The College or Skills Funding Agency (SFA) and the College fund equipment for disabled further education (FE) students.
- FE colleges in England and Wales receive government funding for the costs of providing assistive technology and additional support to disabled students.
- The levels of support and expertise in FE colleges and universities are very variable from pockets of excellent practice with high levels of support and expertise to an hoc situation.
- When colleges bring in external trainers due to needing expertise on very specialised equipment or a general lack of AT expertise, they have to pay them from the general college budget.
- Many universities have a specialised unit for supporting disabled students, but support is sometimes spread over several roles in different departments.
- Equipment, non-medical helpers and travel costs are funded by the Disabled Students Allowance. University, but not college students can retain their assistive technologies when they leave the institution. However, disabled students now have to pay £200 to the cost of a laptop.

Additional Recommendations

Legislation
1. More widely available information on legislation giving rights to disabled people and prohibiting discrimination.
2. More effective implementation of the legislation and compliance monitoring, as well as significant sanctions for non-compliance and an adequately funded organisation with real powers to oversee implementation.
3. Research to compare the impacts of different types of legislation and legislation and other mechanisms.