

International Workshop

Service Delivery Systems for Assistive Technology in Europe

Copenhagen, Bella Centre, May 21-22, 2012

Organized in collaboration with

AAATE (Association for the Advancement of Assistive Technology in Europe)

EASTIN (European Assistive Technology Information Network)

Health and Rehab Scandinavia 2012

Final Agenda

The **UN Convention on the Rights of People with Disabilities** – among many other things – commits the signing States to enforce appropriate measures to facilitate access to **assistive technologies (AT)** for those who need them to improve independence in daily life and to participate in society on an equal basis with others.

In many European Countries public **AT service delivery systems** have been in place for many years, as part of their national or regional welfare systems. The various systems differ significantly from each other, in relation to each Country's disability policy, socio-economic context and history. A system may be considered more or less advanced than others; however, no system recognizes itself as "perfect".

The experience of service delivery practice suggest that **room for improvement** exists in each Country, especially in relation to the new challenges brought on by today's rapidly changing society. Within today's political climate of budget containment and accountability calling for evidence based practice, there is an increasing demand for evidence of the cost-effectiveness of any public support system to personal users' needs. Policy makers and financing agencies need such information to properly allocate resources, control how efficiently they are used, stimulate the market, identify priority areas for research, understand possible wider implications at an overall societal level; professionals working in health care and social services need to know whether their AT choices have proved effective within the intervention program, useful for the client, and efficient in using resources; users and user organizations require to be fully involved in decision making processes and bring their expertise in this discussion.

It is probably impossible to design a **"perfect" AT service delivery system** that is applicable in every country in the EU. However, the experience of each systems existing in Europe brings lessons from which any other country could learn. Sharing such experiences and views will greatly help understand to which extent "good practices" could be exported from one country to another, what are the key

principles of a today's "ideal" AT service delivery systems, and what roadmaps could be envisaged for a better future.

Thus the workshop aims at **gathering and discussing** the most important **experiences** in order to identify **recommendations for good practices** concerning an "ideal" delivery system.

The workshop is mainly addressed to **policy makers** (representatives of the Health or Welfare Ministries of the EU Countries, representatives of EU user organizations and service providers in the disability area), **scientists and experts** (researchers/academics, professionals in health, social services and education), **industrialists** (AT manufacturers and suppliers). The workshop includes invited speakers, round table and discussion sessions. It is intended to give the opportunity to all participants to learn from each other's experience, to investigate how the various service delivery systems could evolve to **best meet the user's need** and to be at the same time **sustainable on the long run**, and discuss possible **roadmaps** for all actors involved to promote advancement on this topic.

The Workshop is organized by the **Danish Ministry of Social Affairs and Integration**, in collaboration with the **AAATE** (Association for the Advancement of Assistive Technology in Europe - the interdisciplinary pan-European association devoted to all aspects of assistive technology, such as use, research, development, manufacture, supply, provision and policy), the **EASTIN** Association (the European Information Network on Assistive Technology) and **Health and Rehab Scandinavia** (the biggest exhibition of assistive products in Northern Europe, taking place on May 22-24).

It will be held in **Copenhagen** at the **Bella Center**, in the same premises where the exhibition *Health and Rehab Scandinavia* will take place. The participants will have free access to visit the exhibition soon after the workshop. **Participation is free** for the invited speakers, for the Ministry officers and for the members of the AAATE and the EASTIN.

The workshop is officially included in the calendar of events of the **Danish Presidency of the Council of the European Union 2012**.

Monday May 21st

12.00 Registration and lunch

13.00 Opening Session

- Opening address by a representative of the Danish Ministry of Social Affairs
- Opening address by an EU representative

13.30 Session 1: National Case Studies

Chair: Dušan Šimšík (The Technical University of Kosice, Slovakia)

This session will look at some examples of how the public service delivery systems works in different Countries. This brief survey will include a system mainly based on a "health" model, a system mainly based on a "social" model, a system mainly based on a "consumer" model and a system in transition stage. Although a well-defined boundary among the three models is only theoretical - most systems usually combine the three models in various ways, depending on the type of assistive technology or on the users' profile – the session will help discuss the pros and cons of the various approaches and the challenges they face in today's rapidly changing society. Each presentation (20 minutes) will include a brief overview of how the system is organized, some case studies that help understand how it works in practice, figures on the economics, and possible expected developments for the near future.

- **Experience of a system mainly based on a social model: Denmark**
(Anne Christensen, Socialstyrelsen, Denmark)
- **Experience of a system mainly based on a health model: Italy. Overview of the Italian Assistive Technology provisioning system**
Silvio Pagliara (GLIC, National Association of AT Assessment Centres, Italy)
- **Experience of a system in transition stage: Hungary**
Gábor Posfái (Hungarian National Office for Rehabilitation and Social Affairs)
- **The service delivery systems for assistive technology in Sweden: current system and ongoing developments**
Ulla-Britt Blomquist, Andreas Richter (Swedish Institute of Assistive Technology)

15.00 Break

15.30 Session 2: Experiences and practices

Chair: Mojca Debeljak (University Rehabilitation Institute of the Republic of Slovenia)

This session will include selected papers (15 minutes each) reporting findings from research projects, pilot studies and experimental trials where innovative models and tools have been developed and tried out to improve the effectiveness of AT service delivery systems.

- **Assistive technology public distribution system in Latvia**
Aivars Vetra (Nat. Rehabilitation Center "Vaivari", Riga Stradins University, Latvia)
- **Assistive technology services delivery system in Slovakia**
Dušan Šimšík (The Technical University of Kosice, Slovakia)
- **Communication and technology centre model in Finland**
Eija Roisko (Communication and Technology Centre Tikoteekki, Finland)
- **Networking among stakeholders: perspectives arising within the AAATE and the related networks**
Klaus Miesenberger, Evert-Jan Hoogerwerf (AAATE)
- **Information provision as a key to expertise development and user participation: the experience of the EASTIN network**
Renzo Andrich (EASTIN President)

17.00 Closure of the working day

Tuesday May 22nd

9.00 Session 3: Service delivery systems analyzed by different perspectives

Chair: Niels-Erik Mathiassen (AAATE President)

This session will look at key issues and challenges that are common to any AT service delivery system, analyzed by different perspectives. The session will begin with a presentation of the findings of a recent study that provides a thematic analysis based on the AT provision system in six Countries (Italy, Great Britain, Denmark, The Netherlands, Norway and Denmark). Presentations will follow by scientists of organizations who have carried out European studies on the structure and the impact of service delivery systems, by experts from users organizations and

service providers. It will also discuss how the provision of information should be organized in order to promote users empowerment and system effectiveness.

- **Thematic analysis based on Assistive Technology systems in 6+ countries**
Kevin Cullen (Work Research Centre, Ireland)
- **Quality indicators of service delivery systems: how to maintain quality in stressed economic circumstances?**
Luc De Witte (Technology in Care research Centre, Zyud University, The Netherlands)
- **Implications of the UN Convention on AT service delivery systems**
Bue Vester-Andersen (European Disability Forum)
- **Today's challenges in disability-related service provision**
Jan Spooren (European Platform for Rehabilitation)
- **Assistive technologies in rehabilitation: a view from the European Society of Physical Medicine and Rehabilitation**
Eero Kyllönen (Clinic of Rehabilitation Medicine, Oulu University Hospital, Finland)
- **Perspectives from the European Association of Service Providers for Persons with Disabilities**
Steve Barnard (HFT, UK, on behalf of EASPD)

11.00 Break

11.30 Session 4: Vision 2015 on AT service delivery

In this session all participants will have the opportunity to bring their views by working in three Parallel Working groups on 3 different subjects. Each working group will be led by a facilitator, while a rapporteur will take care of collecting and summarizing the findings of the discussion. The team-work will be preceded by a brief keynote concerning the issues to be discussed.

- **WG 1: Organizational models**

Research question: how should the ideal system be designed so as to promote innovation, AT market and to meet the citizens' needs?

Facilitator: Tuula Hurnasti (Finnish National Institute for Health and Welfare)

Rapporteur: Peter Cudd (Barnsley Hospital NHS Foundation Trust, UK)

- **WG 2: Expertise**

Research questions: how to ensure the user influence in selecting AT? What are the appropriate professional roles within an ideal system? What should be the appropriate educational standards?

Facilitator: Evert-Jan Hoogerwerf (AIAS Bologna Onlus, Italy)

Rapporteur: Dominique Archambault (Université Paris 8, France)

- **WG 3: System effectiveness**

Research questions: what are the appropriate outcome indicators for an ideal system? What are the appropriate cost indicators ? How should cost-control/containment methods be appropriately implemented, such as public procurement procedures, recycling processes, etc.?

Facilitator: Gert Jan Gelderblom (Zuyd University, The Netherlands)

Rapporteur: Terje Sund (NAV, Norway)

14.00 Session 5: Roadmaps for improvement and sustainability (Round Table)

Chair: Renzo Andrich (EASTIN President)

This session will be introduced by the Working Groups rapporteurs who will provide a concise report of the outcomes of each group. In the round table, representatives of national authorities and policy makers will comment and bring their views on all issues arisen in the workshop. The aim of the session is to envisage possible roadmaps for quality improvement of AT service delivery systems while considering at the same time the sustainability issues.

Closing Speech by

Anders Lynge Madsen (Deputy Permanent Secretary, Ministry of Social Affairs and Integration)

15.30 Closure of the workshop

Contact / information

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Abstracts of the presentations

Experience of a system mainly based on a health model: Italy. Overview of the Italian Assistive Technology provisioning system

Silvio Pagliara, Renzo Andrich

GLIC – Gruppo Interregionale dei Centri Ausili (Italian Network of AT Assessment Centres)

The Italian Assistive Technology provisioning system mainly stems from a medical model (as ICIDH, WHO 1980), which doesn't take into account the contextual factors (as ICF, WHO 2001).

The provision of AT and supports in different contexts (social, health, school, work) follow parallel and not coordinated routes.

These contexts do not communicate to each other and do not have market expertise.

Therefore, talking about AT, there is the strong need of a mediation agency connecting different needs and possible technological solutions.

AT centres are a resource for the entire system, revolving around the life of people with disability. We usually think in terms of health issues (as they do in other countries), but the scope of these Centres crosses through different worlds.

Experience of a system in transition stage: Hungary

Gábor Pósfai, Melinda Toth

Hungarian National Office for Rehabilitation and Social Affairs

Since 2008, 1st January, in Hungary custom-made rehabilitation plans have been determined for those clients who have suffered from health damage or are disabled and have been approved for rehabilitation. These plans contain proposals for medical, developmental, educational, social and occupational rehabilitation.

Since 2008 the institutional background of the complex rehabilitation has been provided by the National Office for Rehabilitation and Social Affairs (NRSZH), whereas beforehand, it was the task of the Office's predecessor in title. Hence, today this Bureau is the institution that has the best insight into complex rehabilitation needs. The occupational rehabilitation of those with impaired working abilities is not only society's moral responsibility, but also an increasingly obvious economical necessity.

The provision of medical aid and assisting technologies to those in need includes the designation of the aids that are the most appropriate for the client's condition, with the opportunity of rental that is more economical.

Based on the above, the NRSZH and its supervising institution, the Ministry of National Resources, have thought it to be necessary to take an active role in the distribution of medical aids. That is why the project of Medical Aids Logistical, Information Technology and Educational Centre has been launched, which is going to be realised using EU funds and in association with the Rehabilitation Centre of Disabled People (MEREK).

The service delivery systems for assistive technology in Sweden: current system and ongoing developments

Ulla-Britt Blomquist, Andreas Richter

Swedish Institute of Assistive Technology

The Swedish delivery system for assistive technology is part of the health care. In accordance with the Swedish Health and Medical Services Act (HSL), health authorities (county councils and municipalities) are obliged to provide habilitation, rehabilitation and assistive devices to persons with disabilities. Each health authority decides on how needs can be met and the assortment of assistive devices. Due to their obligation to carry out public procurement the range of devices has become smaller the last years.

It is now possible for health authorities to introduce a system, "Free Choice of assistive technology". The system gives the user increased involvement in the choice of assistive technology. As in the ordinary prescription process, the prescriber carries out a needs assessment. If the user and prescriber agree to apply Free Choice of Assistive Technology, the user receives a voucher for the allotted amount and the assistive device.

A further development of the free choice of assistive technology with a personal budget is proposed in a recent committee report from the Ministry of Health and Social affairs. In a pre-pilot study, the conditions for experimental purposes with personal budget for assistive technology have been developed. A pilot project involving personal budget will probably start this year.

Another development of the traditional system is to the possibility to prescribe consumer products. Seven county councils are running projects providing mainstream technology to individuals who cannot use ordinary phones. Among applications used are Skype and chat services. Up until now, it has been uncommon for county councils to provide support in using these technologies.

The presentation will include a description of the system in Sweden and summarise results and ongoing work in the projects concerning mainstream technology, the system "Free choice" and the conditions for personal budget for assistive technology.

Assistive technology public distribution system in Latvia

Aivars Vetra*, Ligita Nelsone, Aldis Dudins*****

**National Rehabilitation Center „Vaivari”, Riga Stradins University, Latvia*

*** National Rehabilitation Center „Vaivari”*

**** Ministry of Welfare of Latvia*

Following independence, the 90-ies in Latvian was the reform of state-paid assistive technology in the distribution system, a public company, which ranked in the Latvian monopoly and took the place of manufacture of assistive technologies such as Latvian, wheelchairs, prostheses, orthoses u.t.m.l. instead of this function was taken over by the Social Assistance Fund, which this procurement was divided between different public and private companies, which turned to patients with their needs in this area. In the 1999th this system with the Danish government support was reformed and re-establishing a single state agency, Technical Aid Centre, which took the entire assistive technology distribution to the population. Since 2009 the agency has been eliminated and these tasks delegated to the state enterprise- the National Rehabilitation Centre "Vaivari".

Assistive technology service and the payment basis issued by a medical prescription, which is specified functional disorders and the types of assistive technology required. In these more than 10 years has lead to several problems:

- The assistive system independent problem is "chronic" lack of funding and the planned 4 000 000 lats (5 700 000 EUR) in the amount not been able to achieve a time over the years as rehabilitation and functional limitations are still not compensate for the government priority list can be due to insufficient public-information about this technology options that may contribute by the lack of research activity in this area; Funding for 2012 is planned around 0.70 euros / capita, in 2011 it reached 1.5 EUR / capita, but it is not Latvian never exceeded 2.0 euros / capita; In addition, as shown by the survey, almost a third of technical aids for people receive elsewhere - buying their own, turning local government, church, Red cross etc.
- Medical professional immaturity of the field of assistive technology does not allow them to issue adequate findings of the patients required technical aids. some areas the introduction of a mandatory addition to the evaluation of patients unprofessional and inconsistent findings were found in 10-15% of all the technical aids center patients seen, indicating that the rows of the cues in some categories than even a year, could be exaggerated;
- The third major deficiencies can be mentioned too small Latvian market for assistive technology, low total amount does not attract large manufacturers and do not expect a reasonable price. At the same time Latvian procurement law very hard on the requirements established in the company should be allowed to use the directives of the possibilities to buy medical products, to a certain amount to 200 000 EUR, which includes assistive technology, without direct invitation to tender for lowest prices on the organization of the search, such a system exists in Germany, which allows hospitals and social services procurement organization to cooperate and conduct direct negotiations with manufacturers.

Currently, the country on behalf of assistive technology for distributed three organizations-the National Rehabilitation Centre "Vaivari" and the Blind and Deaf Societys. National Rehabilitation Centre instead simple assistive technologydelivery service offered to patients additional functioning evaluation and selection of assistive technology in the context of a rehabilitation plan- a number of group-mandatory (prostheses, orthoses, electric wheelchairs, etc.) and to ensure that throughout the Latvian has plans for a closer co-operation with other municipalities and the organizations working in the field. Also need greater international cooperation to further reform the system to promote market development and competition, while retaining some regulation of this system from the state.

Assistive technology services delivery system in Slovakia

Dušan Šimšík, Alena Galajdova, Daniel Siman

Technical University of Kosice, Slovakia

The paper will shortly describe the AT services delivery system in Slovakia, including web information about list of approved AT for delivery systems - health and social too. Then experience from the last years implementation of ICT services for seniors in Slovakia will be described based on the state of the art analysis done during work on the 6FP MonAMI (Mainstreaming on Ambient Intelligence) project. There have been established several emergency call social services for seniors that are running independently, mostly in a little regional sites. On the other side there are also centers in bigger cities supported by municipalities. Application procedure for individuals will be described. After some experience some initiatives try to centralise the 24-hours running centres in the whole Slovakia. The paper will describe AT and functionalities of current services and plans for close future.

Communication and technology centre model in Finland

Eija Roisko

Communication and Technology Centre Tikoteekki / FAIDD, Finland

Tikoteekki, national communication and technology centre started in 1995. During 1996-2006 it has established ten regional Tikoteekki centres in various parts of Finland together with central hospitals. National Tikoteekki Centre coordinates a network of regional Tikoteekki centres. Tikoteekki-network works together by sharing information, consultation, education and materials (communication solutions etc.).

All regional Tikoteekki centres provide same kind of customer services based on the assessment model developed by national Tikoteekki centre. Services include assessment of communication devices and assessment of computer use and skills. Services are paid by the authority responsible for the client's rehabilitation, normally municipality.

The assessment of communication devices was developed in ten years period. The assessment is carried out at centre and the client's own environment. It is conducted by a team consisting of a speech therapist, an occupational therapist and, if necessary, an IT expert and AAC worker. The model requires resources of personnel and time to meet the client 3-6 times during six to eight months process.

Regional Tikoteekki Centres are working in different local conditions. Both the resources of the personnel and the support of the community are varying, but not so much. The successful Tikoteekki Centre activities requires prolonged establishment of the services and at the same time commitment of the community to develop the services. The central hospitals have managed to operate better and better during 1996-2011. In the beginning permanent workers were less than ten. Now there are nearly forty workers in central hospitals who are responsible of communication and computer assessment of the people who can benefit of the communication devices or personalized computers.

National Tikoteekki, located in Helsinki, is seen as recourse with its actions of support, regional consultation, training, "Tikoteekki files" and co-ordination of Tikoteekki-network. The main aim is to ensure that services are equally available and equally high quality to all citizens irrespective of place of residence. As a result of the co-operation with central hospital and Slot Machine Association Tikoteekki services are covered the whole Finland.

In this presentation I will also present two case studies how the model works in practice.

Networking among stakeholders: perspectives arising within the AAATE and the related networks

Klaus Miesenberger, Evert-Jan Hoogerwerf

AAATE

A lot is changing in the sector of Assistive Technology. Being a dynamic field, this has always been the case, but the recent economic crises and new policy drivers such as the UN Convention on the Rights of People with Disabilities, have made clear that there is a need for more collaboration at European level to address the challenges we are facing. Starting from a redefinition of Assistive Technology we will inform the audience on recent developments within AAATE and scenario's for further development, based on the dialogue between stakeholders, and as such able to contribute to more effective service delivery systems.

Information provision as a key to expertise development and user participation: the experience of the EASTIN network

Renzo Andrich

Fondazione Don Carlo Gnocchi Onlus, Italy

President, European Assistive Technology Information Network (EASTIN)

The availability of appropriate information on assistive technology products and related issues is a key factor for the effectiveness of a service delivery system. It contributes to the empowerment of people with disabilities and their families, by disseminating awareness, increasing knowledge, helping clarify needs and assisting decisions. It is required by health care professionals when helping users choose AT devices that fit their needs, when training users in their usage, when designing rehabilitation, education or social participation programmes. It is vital for AT suppliers and manufacturers to better know the market, discover opportunities, find out ideas for development, make their products known to the potential customers. It is important for policy makers and officers involved in public service delivery systems (insurances, Health Authorities etc.) to efficiently allocate resources in AT provision. Researchers and developers also need access to information that helps know what already exists, which users' needs are still unmet, what AT areas are admitting of significant developments.

A recent study within the EU-funded ETNA project (European Thematic Network on Assistive Information and Communication Technology) identified 30 "search profiles" describing the expectations of the above five groups of stakeholders (end users; professionals; suppliers; researchers; policy makers) in relation to an information system on assistive technology. In many Countries, national public information systems have been created to respond to this information need. In 2004 – within the "eTEN" programme of the European Commission - the Institutions that operate the major European systems started working together to harmonise the contents of the national database and to aggregate it into a joint European information system. Eventually in 2006 the EASTIN (European Assistive Technology Information Network) took wing on the initiative of four founding partner Institution; the first release of the EASTIN information system was published; a permanent working group was created to ensure continuous improvement of the joint European system, and assist each other in the improvement of the national systems.

Today, EASTIN (which is not a database itself but an aggregator of national databases) is the largest AT information system worldwide. It provides information in 23 European languages on over 70.000 products provided by eight national databases: SIVA in Italy; DLF-DATA in the UK; REHADAT in Germany; HMI-BASEN in Denmark; CATALOGO DE AYUDAS TECNICAS in Spain; HANDICAT in France; VLIBANK in Belgium, VILANS HULPMIDDELENWIJZER in the Netherlands. In Countries that have no database connected, National Contact Organisations (NCC) have been established; these are responsible for the maintenance of each language layer and for answering questions posted by users on the EASTIN website in that language. Currently, NCCs exist in Cyprus, Estonia, Finland, Hungary, Latvia, Lithuania, Slovakia and Slovenia. Recently – thanks to the EU-funded project EASTIN-CL (Crosslingual and Multimodal Search in a Portal on Independent Living) and to direct investment of the EASTIN association – a major re-engineering was carried out on the EASTIN search engine and web interface. The current 1.1 release is more user-friendly, is built upon state-of-the-art technology (which means increased performance and reliability), is ready for plug-in of advanced language technology services (query processing and machine translations) as well as for community services (expected in 2013 as a result of the ETNA and its "sister" network ATIS4All).

The presentation will illustrate how the system currently works; it will also discuss how it an AT information system can be integrated within a service delivery process.

Thematic analysis based on Assistive Technology (AT) systems in 6+ countries

Kevin Cullen

Work Research Centre, Ireland

This presentation will give a thematic analysis based on an examination of aspects of the AT systems in 6+ countries. The study was conducted for the National Disability Authority in Ireland, with a view to identifying good practice that could inform the development of the Irish AT provision system. Other countries covered included Denmark, Norway, Netherlands, Italy, UK and Germany. Topics addressed include the policy importance given to AT, universality and the public-private mix, coverage across settings and the lifecycle, quality aspects of AT systems and services, market functioning and costs, and developments in other areas that are partly related to AT such as telecare, telehealth, ambient assisted living etc.

Assistive Technology service delivery: how to maintain quality in stressed economic circumstances?

Luc P. de Witte

Technology in Care Research Centre, Zuyd University, The Netherlands

Europe has an ageing population and faces the challenge of meeting the needs of citizens who are living with disabilities in a context of stressed family and public care resources. Increasing attention is being given to the role of technology in meeting this challenge, and technological possibilities are increasing. Assistive technology (AT) is used to facilitate individuals' access to and participation in personal, work and social life domains. AT is most often provided to individuals through health and social care practitioners, but is increasingly available for direct purchase by consumers. In most countries two contrasting trends can be seen: on the one hand there is a growing need for AT and in the mean time it will be harder for many people to obtain good AT solutions. In this situation good quality of AT service delivery is becoming more and more important. How can we assure that those who need AT will have access to optimal solutions? And how can we assure that good AT solutions will stay available?

The first aim of this presentation is to discuss quality criteria for good AT service delivery, that are applicably in different service delivery systems. Starting point are the quality indicators developed in the framework of the past HEART study (1994). In a survey among experts in Europe we studied to what extent these criteria are still relevant for the present situation. The second aim of the presentation is to discuss which initiatives could be taken in Europe to stimulate and maintain AT service delivery quality.

Implications of the UN Convention on AT service delivery systems

Bue Vester- Andersen

European Disability Forum

This presentation will focus on the following points:

- Presentation of EDF

- A model putting assistive technology and accessibility in context
- Assistive technology and the UNCRPD
- AT service delivery systems
- Thematic networks on assistive technology within the EU.

Assistive technologies in rehabilitation: a view from the European Society of Physical Medicine and Rehabilitation

Kyllönen E, Giustini A, Christodoulou N, Michail X, Franceschini M, Marincek C, Parada F, Sale P, Varela E, Votava J, Zampolini M.

European Society of Physical and Rehabilitation Medicine and European Union of Medical Specialists, Section of Physical and Rehabilitation Medicine

The population is aging in most of the European countries, when the great age groups born after the second world war get older. So it's challenging to control the costs of health care systems.

The UN Convention on the Rights of People with Disabilities – among many other things – commits the signing States to enforce appropriate measures to facilitate access to assistive technologies (AT) for disabled people, who need many kinds of AT to improve their independence in daily life to participate in the society on an equal basis with others and they can live at home without extra help. WHO's International Classification of Functioning (ICF) creates concrete models for measuring and classifying disability of the handicapped people.

AT refers to the technologies (devices or services) used to compensate for functional limitations, to facilitate independent living, to enable older people and people with activity limitations to realise their full potential. Some, such as the information technologies, even if not purposely designed for people with activity limitations, can be configured to provide assistance or assistive functions when needed. So the term AT covers any kind of equipment or service capable of meeting this definition.

In the past aids, limb prostheses and orthotics with physical exercises and modalities have enabled many activities of daily living. Individuals with disabilities may use AT, mobility devices such as wheelchairs, walkers, crutches, augmentative or alternative communication devices, computer access devices, and environmental modifications or control systems to maintain or augment their ability to interact with their surrounding world. For example people after a stroke or with spinal cord injury and four extremity paralysis can live independent life at home with AT controlling their daily life surroundings: remote control of the doors, windows, phone, television, bell, kitchen facilities, visiting toilet and contacting other people with wireless and mobile communication.

Future technologies create enormous possibilities for new advanced technologies and its innovative applications for rehabilitation. The new technical support offers a continuous development for these traditional tools for rehabilitation. Telerehabilitation, in which patients are at home and physiotherapists give advices from rehabilitation centres, has already been used. A continuous enlargement of their applications toward better recovery of functioning and health of any subject with disability give new possibilities to exercise and move without help and live among us for example with exoskeletons and robotics. Medical doctors, especially specialists in Physical and Rehabilitation Medicine (PRM) can work with many other professionals and different technicians as a team. They can cooperate together with the aims to show scientific evidence of usefulness and cost-effectiveness of new technology and better outcomes and quality of life of patients. Evaluation of the needs of disabled people can be centred in the AT Centres with multidisciplinary teams. There can be PRM doctors, occupational therapists and rehabilitation engineers, who are responsible for comprehensive assessment of needs, including environment and responsive to the physical, psychological and social needs of potential AT users. They can tell their opinion regarding the ease with which an AT device can be used, the comfort felt while using it, its aesthetic appeal, its usefulness and effectiveness as well as the possibilities of their managing and maintaining it by themselves. AT users become

more and more empowered and want to be seen and treated like clients, who can make their own decisions with support by the rehabilitation professionals.

The local and areal public health care authorities are responsible for the delivery of custom-fit AT for each disabled subject and to meet the user's needs within the available resources. The areal centred delivery system, for example for 4-500 000 inhabitants, gives enough possibilities for the staff to specialize and learn up-to-date modern technologies. The big scale economy and competitive delivery contracts according to the EU-directives are possible in big centres and increase cost-effectiveness. Also the technical supply and maintenance of modern more and more complex high-tech technology needs very specialized rehabilitation engineers, occupational therapists and PRM-specialist consultants. The cost-effectiveness is highly dependent of the custom-fit decisions without any expensive useless aids. AT needs home visits and tailor-made solutions according to the user's needs.

Perspectives from the European Association of Service Providers for Persons with Disabilities

Steve Barnard

HFT, UK, on behalf of EASPD (European Association of Service Providers for Persons with Disabilities)

The presentation will include a brief description of the EASPD (European Association of Service Providers for Persons with Disabilities) its understanding of Person Centred Technology (PCT) and how this technology can enhance the quality of life of people and their carer's whilst having a positive effect on resource efficiencies. The presentation will also include some of the major findings from its ESF funded project ImPaCT in Europe. The presentation will be enhanced by some video case studies that will demonstrate the benefits of PCT.