

**ATLEC****Assistive Technology Learning Through A Unified Curriculum****Job profile(s) of ICT-AT trainer**

Ivan TRAINA, Department of Education Studies - University of Bologna  
Evert-Jan HOOGERWERF, AIAS Bologna Onlus

<b>WP number</b>	WP7
<b>WP title</b>	Exploitation of results
<b>Status</b>	Version final (31/01/2014)
<b>Project start date</b>	01/01/2012
<b>Project duration</b>	24 months
<b>Author</b>	Ivan Traina and Evert-Jan Hoogerwerf

For further information related to the ATLEC project please visit:

The project website ([atlec-project.eu](http://atlec-project.eu))  
Facebook page ([facebook.com/ATLECproject](https://facebook.com/ATLECproject))  
Twitter page ([twitter.com/ATLEC\\_project/](https://twitter.com/ATLEC_project/))

*The ATLEC (Assistive Technology Learning Through A Unified Curriculum – 518229-LLP-1-2011-1-UK-LEONARDO-LMP) project has been partially funded under the Lifelong Learning program. This publication reflects the views only of the author(s), and the Commission cannot be held responsible for any use that may be made of the information contained therein.*



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

## Introduction

The objective of the document is to reflect on a job profile of an Information and Communication Technology-Assistive Technology trainer (“ICT-AT trainer” henceforward).

A preliminary analysis revealed that:

- A formal and specific qualification for ICT-AT trainer does not seem to exist in the partner countries and the function is in reality performed by professionals with a wider professional preparation.
- People with disabilities access/use ICT-AT in different contexts, e.g. education, employment, rehabilitation, leisure, etc., where they might be supported by professionals whose job description is determined by the nature of the organisation, its mission, structure, priorities and role.
- Where professionals act as ICT-AT trainers the entry requirements such as level of education, education disciplines and additional qualifications required, seem to vary from context to context and from country to country.

A job profile typically includes a list of: required competences, a role description within a given organisational context, goals, tasks and responsibilities.

Where the competences required from an ICT-AT trainer are basically the same for any work environment -due to similar type of needs across the target population-, the tasks, functions and responsibilities of an ICT-AT trainer might differ depending on the operational context, e.g. AT Centres, Health Units, Disabled People Organizations, Schools, Higher Education Institutions, Vocational Training centres, AT vendors, etc. In other words, whilst knowledge, skills and competences basically are the same, the role, goals, tasks and responsibilities may change, on the basis of the needs of the structures in which the professional will be placed. **This makes it difficult to speak about a unique job profile for ICT-AT trainer.**

The job profiles of ICT-AT trainers outlined in this document is developed in the framework of the ATLEC project. Where the ATLEC ICT-AT Competence Framework systematically describes ICT-AT competence for end users and the ATLEC Curriculum breaks the corpus of expected learning outcomes down into learning units, the ATLEC job profile describes **the requirements an individual should meet to be able to successfully deliver training in this field**. Although assisting stakeholders in better carrying out any training activity based on the ATLEC Curriculum was a trigger factor to develop this job profile, its applicability is definitely wider.

Our analysis has considered the core areas of ICT-AT knowledge, skills and competences required to perform this specialized role, as well as wider aspects related to education and experience (see chapter 2).

To reflect the variety of environments in which an ICT-AT trainer might work, we have decline five different applications of the job profiles. These are based on the experience of the partners, but may be representative for existing situations in which ICT-AT training is delivered: Formal education, AT Centres, Informal adult education in community settings, Vocational training centres (see chapter 3).

**Acknowledgements**

We would like to thank the following colleagues for their constructive comments on the first draft of this deliverable:

Paul Doyle (Hereward College)

Aidan Parr (Foundation for Assistive Technology)

Penny Standen (University of Nottingham)

Renzo Andrich (Don Gnocchi Foundation)

Claudio Bitelli (Italian Network of AT centres)

Simonetta Randi (Italia Lavoro)

Luk Zelderloo, (EASPD)

Jan Dekelver, (Thomas More)

Jan Engelen (Expert)

Jean-Marie Vanhove (Expert)

## Table of Contents

Introduction .....	2
Table of Contents .....	4
1. Sources of reference of the job profile of ICT-AT trainer .....	5
2. Job profile of an ICT-AT trainer .....	7
2.1. Education and experience required .....	7
2.2. Knowledge, skills and competences needed .....	8
2.3. Role, goals, tasks and responsibilities .....	10
2.3.1. Case A - AT Centres (AIAS Bologna onlus) .....	10
2.3.1.1. Role in the organisation .....	10
2.3.1.2. Goals .....	11
2.3.1.3. Tasks and responsibilities .....	11
2.3.2. Case B - Formal education (Oakfield School) .....	12
2.3.2.1. Role in the organisation .....	12
2.3.2.2. Goals .....	12
2.3.2.3. Tasks and responsibilities .....	12
2.3.3. Case C - Informal adult education in community settings (Greenhat Interactive) .....	13
2.3.3.1. Role in the organisation .....	13
2.3.3.2. Goals .....	13
2.3.3.3. Tasks and responsibilities .....	13
2.3.4. Case D - Vocational training centres (PhoenixKM) .....	14
2.3.4.1. Role in the organisation .....	14
2.3.4.2. Goals .....	15
2.3.4.3. Tasks and responsibilities .....	16
2.3.5. Case E - Non formal skills development in an Association (Disability Now) .....	17
2.3.5.1. Role in the organisation .....	17
2.3.5.2. Goals .....	17
2.3.5.3. Tasks and responsibilities .....	17
3. Conclusions .....	19
List of abbreviations .....	20

## 1. Sources of reference of the job profile of ICT-AT trainer

So far not much is known about existing relevant profiles, training and career pathways across Europe. Analytical and comparative studies that address the cross European level are missing.

Therefore references to start to define and situate this profile have to be found in projects and initiatives at national and EU level<sup>1</sup> and in more generic references like the European Qualifications Framework (EQF), the International Standard Industrial Classification of all economic activities (ISIC), the statistical Nomenclature of economic Activities in the European Community (NACE), International Standard Classification of Occupations (ISCO).

### EQF<sup>2</sup>

The KPT-project (Keeping pace with assistive technology)<sup>3</sup> was the first European project to try to map AT professional competence against EQF level descriptors.

The project states that AT competence at EQF level 6<sup>4</sup> should permit professionals to guide complex ICT-AT interventions, including providing training to support clients and users with complex or very complex needs. ICT-AT professionals would typically have expertise in more than one area, such as education, ICT-AT, health and social care as well as relational skills. They have the technical and methodological skills to train and support user groups with different educational and training needs.

Core competences at EQF Level 6 are:

- The confidence and ability to develop and deliver training.
- Appropriate knowledge of the strategies to provide awareness of the wide range of equipments that will benefit their users and clients.
- The skills to transfer know-how and abilities to manage assessments needs, and support to users and clients with complex needs.
- A critical evaluative analysis and perspective of equipments and strategies.
- The ability to lead teams and support professionals.
- Advanced knowledge of national legislation and funding opportunities and critical evaluation of services and agencies.

---

<sup>1</sup> DART2 project. Available at: <http://www.fastuk.org/research/projview.php?id=2048>

<sup>2</sup> Commission of the European Communities. Towards a European Qualifications Framework for Lifelong Learning [Commission Staff Working Document]. (SEC (2005) 957, July 2005), pp. 4. Available at: [http://ec.europa.eu/eqf/documentation\\_en.htm](http://ec.europa.eu/eqf/documentation_en.htm)

<sup>3</sup> Available at: <http://acecentre.org.uk/kpt-keeping-pace-with-technology>

<sup>4</sup> Available at: [http://ec.europa.eu/eqf/compare/eqf/6\\_en.htm](http://ec.europa.eu/eqf/compare/eqf/6_en.htm). (22.05.2013).

**Economic activity NACE<sup>5</sup>**

The framework of the economic activity in which the job profile ICT-AT trainer could be situated corresponds to Item n. 18 Section J.62 Information and communication - Computer programming, consultancy and related activities.

**International Standard Classification of Occupations (ISCO-88)<sup>6</sup>**

Depending on the job profile the classification of the occupation could be:

- N. 2139 - Computing professionals not elsewhere classified;
- N. 2359 – Other teaching professionals not elsewhere classified;
- N. 3340 – Other teaching associate;
- N. 5139 – Personal care and related workers not elsewhere classified.

For the national UK level worth mentioning are the standards developed by Skills for Health in the UK, which at this stage seem to be the most elaborate standard relevant to our work.<sup>7</sup>

---

<sup>5</sup> Available at: [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-015/EN/KS-RA-07-015-EN.PDF)

<sup>6</sup> Available at: <http://www.ilo.org/public/english/bureau/stat/isco/isco08/>

<sup>7</sup> UK National Occupational Standards for Assistive Technology by Skills for Health. Available at: <http://www.skillsforhealth.org.uk/about-us/competences%10national-occupational-standards/national-occupational-standards-for-assistive-technologies/>

## 2. Job profile of an ICT-AT trainer

For describing the ATLEC ICT-AT trainer job profile the following dimensions have been considered:

General:

- Education and experience required (2.1.)
- Knowledge, skills and competences needed (2.2.)

Role specific:

- Role in the organisation (2.3)
- Goals to be reached (2.3.)
- Tasks and Responsibilities (2.3.)

### 2.1. Education and experience required

- Educated to degree standard or equivalent professional qualification in ICT, AT, Education, Rehabilitation or related field.
- Proven professional experience with Assistive Technology.
- Hands on experience in supporting people with disabilities in realising their life projects.
- Demonstrated competence in IT including the main commercial and open source operating systems.
- Relevant teaching or training qualification/experience.
- Experience with working in a multidisciplinary team.

## 2.2. Knowledge, skills and competences needed

	General	Technical	Specific
Knowledge*	<ul style="list-style-type: none"> <li>• Broad theoretical and practical knowledge in the ICT and ICT-AT field.</li> <li>• Demonstrate critical awareness of knowledge issues in the ICT-AT field and at the interface between different disciplines.</li> <li>• Knowledge of the advantages of using the personal solution compared to non-using it.</li> <li>• Good understanding of national and local current legislation relevant to disabled people. Knowledge and understanding of the UN Convention on the Rights of Persons with disabilities.</li> <li>• Knowledge of the rehabilitation, educational and social services that people with disabilities typically refer to, especially those relevant in the AT implementation process.</li> <li>• Understanding of education and learning processes.</li> <li>• Knowledge of the basics of user human centered design</li> </ul>	<ul style="list-style-type: none"> <li>• Working knowledge and comprehensive understanding of ICT-AT including: hardware, software, and practices which allow persons with disabilities equal access and creates the most inclusive environment.</li> <li>• Knowledge of effective best practices and current issues in the field of accessibility and user centred approach, including adaptations and modifications that enable people to improve their quality of life.</li> <li>• Excellent knowledge of emerging mobile technology, tablet computers and social networks</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrable knowledge of the application of ICT-AT strategies pertinent to specific groups of persons with disabilities.</li> <li>• Demonstrable knowledge of assistive devices and be able to describe the personal assistive solutions in their context of use and their expected outcome.</li> <li>• Demonstrable knowledge of the AT market and ability to search and find information about ICT-AT solutions at local and national level. Awareness of international databases in this field.</li> </ul>
Skills**	<ul style="list-style-type: none"> <li>• Excellent teaching skills</li> <li>• Ability to design learning programmes that respond to training needs by integrating multidisciplinary knowledge elements from different sources.</li> <li>• Excellent interpersonal and communication skills</li> <li>• Good organisational and time management skills.</li> <li>• Elementary skills in applying the basics of user centred design.</li> <li>• Skill to perform a context analysis before implementing AT.</li> </ul>	<ul style="list-style-type: none"> <li>• Mastery of methods and tools in many areas of AT.</li> <li>• Experience in setting up and using ICT-AT.</li> <li>• Ability to transform emerging technologies (i.e. mobile applications, social networks, e-learning) in opportunities for learning.</li> </ul>	<ul style="list-style-type: none"> <li>• Experience of working with disabled people, families, professionals and HRMs.</li> <li>• Ability to adapt learning programmes to the needs and wishes of the disabled learner.</li> <li>• Ability to identify critical issues during the training related to personal training needs and the appropriateness of the solutions identified for the learner.</li> </ul>

Competences***	<ul style="list-style-type: none"> <li>• Demonstrate autonomy in the direction of training and high level of understanding of education and learning processes of people with different disabilities</li> <li>• Demonstrate ability to develop individualised training programmes that are responsive to the needs identified.</li> <li>• Express a comprehensive, personalized viewpoint showing respect for the view of others.</li> <li>• Work effectively both independently and as part of a multi-disciplinary team, also during the assessment phase.</li> <li>• Demonstrate experience of operational interaction in multidisciplinary teams and within complex environments.</li> <li>• Demonstrate experience in context analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate excellent knowledge of current and evolving trends in ICT and assistive technology.</li> <li>• Apply working knowledge of specialist assistive software or hardware and skills in reaching satisfying outcomes.</li> <li>• Demonstrate ability to interact with ICT-AT technicians for expert advice and the personalisation of devices and solutions.</li> </ul>	<ul style="list-style-type: none"> <li>• Show initiative in the management of training processes to develop awareness for the benefit of using ICT-AT in personal context.</li> <li>• Demonstrate empathy, involvement and motivation in dealing with learners with disabilities.</li> <li>• Make recommendations based on the integration of social and educational issues.</li> </ul>
----------------	---	--	---

\* Knowledge<sup>8</sup>

Knowledge means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.

\*\* Skills

Skills means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).

\*\*\* Competence

Competence means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

<sup>8</sup> Available at [http://ec.europa.eu/eqf/terms\\_en.htm](http://ec.europa.eu/eqf/terms_en.htm)

### 2.3. Role, goals, tasks and responsibilities

In this section 5 examples of a job profile of an ICT-AT trainer are presented. The roles, responsibilities and goals for each profile differ and depend on the organisational and institutional context in which the trainer functions.

The contexts considered are:

- 1) Case A: example in a context of AT Centres (AIAS Bologna Onlus)
- 2) Case B: example in a context of Formal Education (Oakfield School and Sports College)
- 3) Case C: example in a context of Informal adult education in community settings (Greenhat Interactive)
- 4) Case D: example in a context of Vocational training centres (PhoenixKM)
- 5) Case E: example in a context of non-formal skills development in an association (Disability Now)

#### 2.3.1. Case A - AT Centres (AIAS Bologna onlus)

##### 2.3.1.1. Role in the organisation

The ICT-AT trainer is member of the multidisciplinary team of the AT Centre. As such his/her role is related to the design and implementation of educational strategies and activities targeting the AT user and his/her environment. His/her primary role is ensuring that the ICT-AT solutions recommended and purchased by the client are effectively used in the “real life” environment. As a consequence the ICT-AT trainer has an important function in the post assessment phase of the service, during which his/her role is characterised by frequent contact with the end user and, where necessary, with formal and informal carers. The ICT-AT trainer might be part of the assessment team, on an “as needed” basis, for example when the available pre assessment information makes the team concludes that very likely user support in the implementation of the ICT-AT solution has to be activated. Due to his/her competences in making the end users as independent as possible in using their ICT-AT solution, the trainer might also participate in training events for groups of end users or professionals. The trainer will typically work in the AT Centre or in user settings (home, school, workplace, etc.) with a relatively high level of autonomy.

In the AT Centre the ICT-AT trainer has an important role in ensuring that end users get applicable knowledge and develop functional skills in the ICT-AT domain. By developing these competences the end users will be able to overcome activity limitations and participation restrictions. As such his/her role will start early in the ICT-AT adaptation process that goes from needs identification to implementation of the ICT-AT solution. As a team member the ICT-AT trainer will have an overview of the client population of the centre and their training needs. He/she will work in close contact with the case managers and the assessment team members. Outside the centre he/she will interact with professionals in education, employment and social intervention, making sure his/her training efforts support the effective use of ICT-AT equipment by the end users. The ICT-AT trainer is further part of the Centre’s training team, integrating his/her competences with those training professionals. Towards the end users the ICT-AT trainer is a

“bridge”-person between the Centre’s research and project activities that will facilitate their participation in the very same activities.

### **2.3.1.2. Goals**

The educational goals of the ICT-AT trainer are the following:

- to favour the development of ICT-AT knowledge and skills, primarily among persons with disabilities.
- to support appropriate and effective use of ICT-AT equipment by end users, thus reaching higher personal outcomes in different areas.
- to help end users, carers and professionals in developing their knowledge and skills in ICT-AT on an as needs basis.
- to support activities aimed at increasing the involvement of end users in the design, implementation and evaluation of research, project and service activities of the AT Centre.

### **2.3.1.3. Tasks and responsibilities**

Tasks and responsibilities of ICT-AT trainer inside the AT Centre are:

- to design appropriate learning programmes in ICT-AT following an analysis, within the multidisciplinary team and with an ICF logic, of the compatibility between: the individual with disability – the personal and social objectives – ICT-AT equipment – the life context. This might involve the participation, when appropriate, in the interdisciplinary assessment and identification of the most appropriate ICT-AT solution.
- to create and deliver suitable individual support programmes for disabled people, taking into account their needs in terms of learning, ensuring effective use of the recommended technology. This might involve personalising the assistive solution or involving expert support where needed.
- to inform, involve and support formal and informal care givers thus ensuring the personal and social impact of the assistive technology. This involves ensuring that the end users, their families and professional carers are aware of the importance of the technology for the individual and how the solutions can be utilised in different settings and for different purposes.
- to monitor the outcome of the training (successful or critical aspects), to refer these to the case manager and to the team that has assessed the individual's needs.
- to design and deliver, on occurrence, training courses, laboratories and workshops to groups of end users (persons with disabilities).
- to use expert knowledge of relevant software packages, hardware and technological aids to deliver specialist Assistive Technology training to disabled people, families, educators and all the professionals involved in the care and support of the person.
- to produce training materials on the use of assistive technology.
- to keep up to date with developments in assistive technology as required to stay effective in this role. This might include participation in international workshops, conferences and project meetings.

- to contribute to information leaflets/website information relating to training in ICT-AT or information for end users with a particular focus on accessible language and communication.
- to facilitate the participation of end users in research and project activities of the Centre, thus feeding the Living Lab activities of the AT centre.
- to undertake any other duties as may be reasonably requested.

### **2.3.2. Case B - Formal education (Oakfield School)**

#### **2.3.2.1. Role in the organisation**

ICT trainers design and deliver training programmes in information and communication technology within the school. The trainers need also to be familiar with how to use a variety of ICT-AT, hardware and software programmes or mobile applications to support and develop student understanding and practical skills.

ICT trainers are responsible for the application of learning technologies to transfer skills in both, ICT and non-ICT subject areas. Trainers develop expertise in their specialist area/s and they must have the knowledge and skills to use a range of learning technologies in order to support students in developing communication and practical skills. It is vital that the ICT-AT trainer is well informed about the curriculum, assessment tools, progress levels and personalised learning. Trainers must also be able to develop positive relationships with students and work effectively with other colleagues within a special school such as teachers, teaching assistants, speech and language therapists, occupational therapists etc.

#### **2.3.2.2. Goals**

The goals of the ICT-AT trainer are the following:

- to ensure that the learner can access a curriculum through the use of ICT-AT.
- to promote effective communication with the learner at all times.
- to ensure that the learner has every opportunity to access the appropriate ICT-AT to allow them to communicate effectively with others.
- to provide support to parents/carers with ICT-AT throughout the learners time at school.

#### **2.3.2.3. Tasks and responsibilities**

Tasks and responsibilities of ICT-AT trainer inside the Formal education Centre are:

- to adapt communication methods to ensure they are appropriate to all learners.
- to create and/or adapt and deliver suitable individual programme of support for the learner, taking into account individual needs related to teaching and learning.
- to ensure effective use of ICT-AT and software packages.

- to ensure the trainer liaises and supports parents/carers as appropriate with the use of ICT-AT in a range of situations and environments.
- to assess learner for ICT-AT devices and software in the school setting.
- to work in an advisory capacity e.g. recommending ICT-AT hardware and software packages.
- to be aware of emerging technologies that could potentially benefit learners in the school. This might include the participation in relevant international workshops, conferences etc.
- to produce training and information materials on the use of ICT-AT and software packages.
- to be knowledgeable about UN Convention on the Rights of Persons with disabilities, national and regional laws, as well as legal decisions related to ICT-AT.
- to have the skills to develop positive relationships with students and work effectively with other colleagues within a special school such as teachers, teaching assistants, speech and language therapists, occupational therapists etc.

### **2.3.3. Case C - Informal adult education in community settings (Greenhat Interactive)**

#### **2.3.3.1. Role in the organisation**

The ICT-AT Trainer will be required to work as part of a team developing personalized programmes of individual support for learners with LDD and other disabilities, to assist in the support and inclusion of students with disabilities within the training room. They will be required to support users of ICT assistive technologies through informal assessment, training and guidance in the use of their equipment, devices, applications and software, in facilitation of the acquisition of digital, social and employability skills or other vocationally based programmes of learning.

The persons appointed will be required to have specialist knowledge of the following:

- Assistive technologies and enabling solutions for LDD
- LDD ICT Programmes.

#### **2.3.3.2. Goals**

The goals of the ICT-AT trainer are the following:

- To empower students with disabilities to become more independent.
- To develop the skills for employment and independent living skills of people with disabilities to their potential.
- To maximise their opportunities for inclusion and participation.

#### **2.3.3.3. Tasks and responsibilities**

The person appointed will be responsible to the Training Manager for the following:

- To develop an understanding of the specific needs of students with disabilities, including learning disabilities.
- To help the students to learn as effectively as possible in class, small groups and individually using some of the following methods:

- Questioning the students to check understanding of the teacher’s instructions.
  - Checking that the students are able to use their ICT-AT equipment to facilitate their inclusion and effective participation in the lesson and that they understand and can use the learning materials provided.
  - Assisting in areas where the student needs the greatest support e.g. language, reading, writing, behaviour and social skills.
  - Helping to keep the students on task.
  - Encouraging the students to attain independence in and out of their work.
  - Liaising with subject teachers about the best ways to achieve the learning intentions.
- To express concerns to the subject teacher where the work may prevent inclusion.
  - To establish a supportive relationship with the students concerned.
  - To motivate and encourage the students by recognizing achievement.
  - To help include the students in mainstream lessons and other activities.
  - To liaise with local Access Centres to attain suitable and appropriate ICT-AT devices and applications for the student and to have an input on assessment procedures.
  - To assist the student with simple ICT-AT maintenance tasks.
  - To support the student with personalization of their ICT-AT.
  - To keep daily records on students and feedback to the Training Manager.
  - To work as a member of the team.
  - To assist in the planning and implementation of individual programmes.
  - To liaise with parents and carers.
  - To help maintain an atmosphere in which vulnerable students can develop self- confidence and are able to maximize their independence and learning potential.
  - To attend relevant in- service training.
  - To be aware of the organisation’s policies and practice.
  - To be aware of the need for confidentiality, whilst complying with the organisation’s Safeguarding Policy to ensure the welfare of vulnerable young people and adults.

### **2.3.4. Case D - Vocational training centres (PhoenixKM)**

#### **2.3.4.1. Role in the organisation**

The Belgian Government-regulated Vocational Education Training system (VET) includes: the secondary compulsory education with the technical and vocational programs (full-time and part-time); adult education; higher education with vocational bachelor programs; apprenticeship and entrepreneurial training; and vocational training for adults, jobseekers, worker and students, organized by the public employment offices. The Belgian VET system actually starts at the age of 14, if the pupil follows normal progression.

Until the age of 15, only one provider is in charge of VET in compulsory education: the schools, under the responsibility of the Ministry of Education, in each Community. At the start of the 2nd secondary education stage, the scope of VET extends to new providers besides the schools.

Pupils may orient themselves towards part-time programmes, alternating work and learning, organized either by schools or by the training organizations of small and medium-sized enterprises (SMEs). Adult education may also provide courses for them or as a partner-provider for schools in some programmes.

Once the students are at the age of 18, the scope of VET gets even broader. Young people may stay in the education system and go to work or to any public or private vocational training provider, depending on their own professional career objectives, level of studies or other conditions like their social status: students, workers, jobseekers, etc.

If the students leave the education system without a certificate/diploma of secondary school, they may continue to adult education. At any time, as from 18 years old it is also possible to move towards a validation certificate via a skills center to obtain a qualification certificate.

An ICT-AT trainer in this framework would need to have considerable ICT knowledge, as well as experience of working together with the target group of people with disabilities, or having a disability him/herself as well, and thus be an “experience” user. The latter is especially appreciated as it lowers the barrier for end-users when they see that the expert him/herself has immediate experience with ICT based AT as an experienced end-user.

The ICT-AT trainer in our organization has to have proven skills in having direct contact with the beneficiaries. We expect him/her to have a solid and sound understanding of the different disabilities that exist, as well as have a good insight into which assistive technologies support which disabilities. Creativity is crucial in this, as even regular consumer products might prove to be very helpful in providing support, smart phone, tablets, etc. are increasingly used in daily work using apps that support e.g. young adults with learning difficulties, dyslexia or with autism to organize their daily activities. A direct impact is measurable in their working environment.

This person needs a high level of communication skills and empathy to be able to “level” with the beneficiaries, and also to overcome potential barriers.

This person is not so much a person with managerial skills, but rather a person that gets things done, and finds practical solutions.

#### 2.3.4.2. Goals

The goals set forward are:

- Ensure that every person can participate in training, and can reach his/her highest achievement within the context of his/her abilities.
- Ensure that colleagues are well informed about what people with disabilities can do, despite one or more disabilities.
- Involve as much as possible experienced end-users in the training.
- Be communicative towards all people involved, and this includes the family, carers and teachers at other schools that are often totally unaware.

- Awareness training for regular teachers and trainers, that are increasingly faced with students with disabilities, due or rather thanks to the inclusive education approach that is implemented in Flanders.

#### 2.3.4.3. Tasks and responsibilities

The ICT-AT trainer has the following responsibilities:

- To assess a current situation in which a person is unable to either follow training lessons because of one or more disabilities, or be able to provide training to a person with a disability, by considering different settings as in a computer room, in a teaching area, or when studying/working at home.
- “Out of the box”, lateral, creative thinking is an absolute must in this field of work. A 1 to 1 ready available solution is not always there, thus creativity is a must.
- Capture the needs of the individual in need of support, be able to document this and find a matching solution.
- Be communicative towards colleagues, who will often raise issues they have noticed with certain users, and will be the first ones to raise the issue towards the ICT-AT trainer. In this respect, it is crucial that this trainer is able to pass his/her knowledge also to other trainers/teachers in various formats: a training course, an online manual/FAQ, etc.
- Be also communicative about the offered support to all potential beneficiaries in a format that all can access: online, audio, textual, pictogram supported, etc.
- Provide accessible training to all those that require it in order to use ICT-AT. This encompasses: accessible training facility, accessible training methods, etc.
- Be the contact point on AT, this person also needs to be continuously updated on novel approaches or technologies.

While the ICT-AT Trainer should have good knowledge on different solutions, s/he should be careful with suggesting certain solutions, especially towards people with disabilities. Because of the reference list principle in Flanders (Belgium), not every product or solution will be reimbursed and most of them, even if on the list, are not fully reimbursed. In this respect, s/he should be aware of and be able to consult the reference list (see <http://www.vaph.be/vlafo/view/nl/1965395-Refertelijst.html>) and the supporting organizations such as the VAPH (Het Vlaams Agentschap voor Personen met een Handicap - <http://www.vaph.be/>) and the AT resources database VLIBANK (<http://www.vlibank.be/>) where the trainer should know where and how to search for the latest up-to-date solutions, and to assist the beneficiaries and their carers/family. Linked to this, a profound knowledge of relevant accessibility legislation (including the UN Convention on the Rights of Persons with disabilities) is an absolute necessity.

The ICT-AT trainer should also be involved in new initiatives that address the needs of design for all. This might be e.g. a new classroom that should be also accessible. There s/he should know about ICT accessibility, but also have basic knowledge of the accessibility of the built environment.

### 2.3.5. Case E - Non formal skills development in an Association (Disability Now)

#### 2.3.5.1. Role in the organisation

Being a (non-formal) AT ICT trainer in an association of persons with disabilities (PwD), is more about peer supporting on matching one's specific needs with the suitable AT equipment based on the functionality of the device and the trainee's disability. The trainer aims to stimulate increased use of digital learning material in educational or vocational training. Assistive ICT is a rapidly growing area covering devices, e.g. smart-phones (that support third party applications), net-books (i.e. small fully-featured laptop computers) and touch screen tablets.

Potential peer consultation techniques for trainees would include:

- In person (phone or via internet).
- Peer-to-peer or in group sessions.
- In ad hoc or ongoing formats.

An ICT-AT trainer has to focus on delivering feasible learning objects, tailored to suit the everyday experience of the learner rather than being provided in abstract terms. Based on the learners' disabilities, the trainer should be using an extended range of sensory channels to deliver information to them in order to help them understand: sound, podcast, video and interactive applications are considered to enhance the chance of achieving the learning goals.

The trainer's managerial and strategic requirements include:

- Effective use of AT ICT.
- Project planning and research strategies.
- Developing memory techniques.
- Flexible presentation skills.
- Exam preparation.
- Sufficient time management and self-organization.

#### 2.3.5.2. Goals

The goals set forward are:

- Trainees with disabilities must be able to choose which technology to use, based on its efficiency for use. It is important to give learners the possibility to try a range of technologies.
- When disabilities are more severe, challenges are greater. Assistive technologies may also provide a key outlet for creativity, communication and interaction.
- Independent Living: AT set PwD free of the permanent need for help. Gaining autonomy (as much as possible) is the purpose of every peer-support-oriented ICT-AT activity.

#### 2.3.5.3. Tasks and responsibilities

The ICT-AT trainer has the following responsibilities:

- Making better use of existing resources and materials available from online ICT-AT dedicated sources.
- Supporting learner's needs by taking advantage of the free, portable applications available in the market.
- Meeting the diverse needs of learners in different locations and venues with different ICT equipment.
- Create and deliver suitable individual programme of support for disabled people, taking into account their needs in term of teaching and learning, ensuring effective use of the recommended technology.
- Keep up to date with developments in assistive technology as required to stay effective in this role.

### 3. Conclusions

In this deliverable we have provided a competence grid for an “ICT-AT Trainer” able to deliver with a high level of personalisation all levels of the ATLEC curriculum. We have listed a coherent set of required competences and provided 5 examples of how this is or could be adapted to different organisations, which has led to 5 different job descriptions. This approach is coherent with a lifelong learning perspective on skills development and employment in the AT sector. In this view professionals will typically start with a certain qualification, but develop their professional competences on the field.

Basically in all job descriptions the ICT-AT trainer is responsible for facilitating access to ICT-AT solutions, mediating between the person and the assistive technology and training people to successfully use these assistive solutions. The ICT-AT trainer is often a key person in processes and interventions aiming at empowering persons with disabilities and to support their participation in education, employment and society. This requires active collaboration with various actors in the field.

In addition, the ICT-AT trainer provides information, counselling, and promotes accessibility awareness and the user centred design approach through networking, training, and collaboration. The ICT-AT trainer demonstrates commitment to equality, diversity, and to continuing professional development to inform best practice in the field.

Digital skills acquisition of persons with disabilities is definitely a priority for the inclusive society and for closing the digital divide. ICT-AT learning is an important part of digital skills development. ICT-AT trainers can fulfil an important role. As learning takes place in different contexts, jobs will probably always be different, but qualifications and competences required should be further investigated and validated in order to promote the very idea that professional intervention is needed, as well as structural investments in digital skills development of citizens at risk of digital exclusion.

## List of abbreviations

AT: Assistive Technology

EQF: European Qualification Framework

EU: European Union

ICF: International Classification of Functioning

ICT: Information Communication Technology

ISCO: International Standard Classification of Occupations

ISIC: International Standard Industrial Classification of economic activities

LDD: Learning Difficulties and Disabilities

NACE: Nomenclature of economic Activities in the European Community

UN: United Nation

VET: Vocational Education Training system