COOPERATION MECHANISMS BETWEEN THE PROVIDERS OF VOCATIONAL EDUCATION AND TRAINING AND EMPLOYERS IN THE FIELD OF ICT

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I. Introduction & Background

The promotion of cooperation and mutual learning between the worlds of work and vocational education and training (VET) in the ICT sector, are essential to support a better labour skills match and a greater employability of people with disabilities in the open labour market.

The European economic recovery requires that skills of the population are upgraded in order to enhance human capital and employability. Yet, upgrading skills is not enough: ensuring a better match between the supply of skills and labour market demand is also necessary. Too many vacancies are not filled despite the number of job seekers. […]The growing importance of the knowledge economy, in particular with the diffusion of ICTs, represents a high potential for creating sustainable jobs. The best prospects of job creation by 2015 are expected in business services, notably in the ICT sector – EU Agenda for New Skills and Jobs.

The ICT sector is of significant importance in European economy and growth: in the EU, the ICT sector share of total business value added is 8.5 % and the ICT sector employment constitutes 3 % of total business sector employment. The most important benefits of ICT arise from its effective use. ICT investments help to raise labour productivity; the use of ICT throughout the value chain enables firms to increase their overall efficiency and be more competitive. In European statistics, ICT has only been recently classified as a sector of its own right[1]. In the NACE - Statistical Classification of Economic Activities in the European Community[2] (revision 2 in 2008), the J code refers to Information and Communication sector, as long as it involves technology. This includes notably software publishing, motion picture and sound recording activities, telecommunications activities, information technology activities, computer programming and consultancy.

In this paper, the ICT sector is understood as a labour market and economic sector. This includes mere IT jobs as well as assistive technologies and telecommunications related jobs, or audio-visual equipment jobs. Examples of such jobs are: web designer, web administrator, IT technician, information management technician, programmer, network administrator, software developer, etc.

The employers in the ICT sector include large enterprises, but more attention is given to small and medium enterprises, because they carry most of the EU economic activity. Enterprises considered in this report are those operating on the open (ordinary) labour market.

[1] Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90

[2] http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC&IntCurrentPage=1

This paper will highlight European approaches to the issue of cooperation between VET providers and labour market actors and some initiatives or practices at EU or transnational levels. Some mechanisms and practices described are mainstream, meaning that they are not specifically designed for people with disabilities - this approach was favoured to offer a broader range of case and promote mainstreamed inclusion – with appropriate supports.

The European Union counts approximately 50 million people with disabilities. In this survey a broad range of disabilities are considered: physical, sensory, intellectual (learning difficulties), mental health and psychological disorders. Disability is to be considered as the result of the interaction between the individual's impairment and the barriers in society. People with disabilities considered in this report are 14 years old and above, meaning of the age of following education and training, or in working age.

II. Mapping at European level

1. Education, training and employment of people with disabilities: the European context

- **EU legislation ensuring the right to VET and to work for people with disabilities**

In 1997, the European Union governments integrated Article 13 into the Amsterdam Treaty. This Article 13 has enabled the Council to take appropriate action to combat discrimination and it now serves as a legal basis of all the European non-discrimination legislation. Based on Art.13, the ***European Directive on Equal Treatment in Employment and Occupation***[3], adopted in 2000, prohibits any discrimination, be it direct or indirect, in the field of employment, vocational training, pay and working conditions and membership in organizations of workers or employers on several grounds, including disability. Reasonable accommodation is guaranteed by the Employment Directive, meaning the employer must take measures to adapt the working place to an employee with disabilities, such as removing physical barriers by installing ramps, facilitating access of visually impaired employees to information technologies, or altering working times to accommodate the needs of disabled workers.[4]

[3] Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation

[4] http://www.edf-feph.org/Page.asp?docid=13359&langue=EN

The mainstreaming tendency started with the ***European Action Plan: Equal opportunities for people with disabilities***[5] and following this step, the ***Treaty of Lisbon*** was signed in 2007 and introduced a horizontal clause on non-discrimination, including on the ground of disability (Art. 19, replacing Art. 13 of the Amsterdam Treaty). As a consequence, the EU should combat discrimination in the definition and implementation of all its policies and activities. This is reinforced by social clauses of general application requiring the Union, and the introduction of the ***Charter of Fundamental Rights*** into European primary law.

The United Nations Convention on the Rights of persons with disabilities *(UNCRPD),* to which the EU is a State Party, confirms the right to VET and to work for people with disabilities. Article 24 stresses that States are to ensure equal access to primary and secondary education, vocational training, adult education and lifelong learning, and an inclusive education system at all levels. Article 27 states that to ensure equal rights to work by persons with disabilities, countries must prohibit discrimination in job-related matters, promote self-employment and entrepreneurship, employ persons with disabilities in the public sector, and promote employment in the private sector.

The ***EU Disability Strategy 2010-2020***[6] builds on the UNCRPD and takes into account the experience of the EU-Disability Action Plan 2004-2010. Among its priorities are the employment of people with disabilities in open labour market as well as education and training, by promoting inclusive education and lifelong learning. It calls for an increased investment in education and training systems to reduce the high drop-out rates, the introduction of individual learning supports; effective and alternative VET options, inclusive education and the provision of adequate supports for people with disabilities.[7]

- **EU policies anticipating and matching labour market and skills needs**

Matching the supply and demand for skills is a priority of the EU Commission. The 2008 Commission Communication "New skills for new jobs" has paved the way to the ***Agenda for New Skills and Jobs***, one of the flagship initiatives of the Europe 2020 Strategy launched in 2010. This Agenda urges for a more skilled workforce, capable of contributing and adjusting to technological change with new patterns of work organisation.[8]

[5] COM/2003/0650
[6] European disability Strategy 2010-2020: a renewed commitment to a barrier-free Europe", COM(2010) 636 final
[7] European Foundation Centre, Assessing the impact of European governments' austerity plans on the rights of people with disabilities, European foundation Centre, European report, 2012, p16
[8] http://ec.europa.eu/digital-agenda/en/grand-coalition-digital-jobs-0

Considering the growing shortages of ITC professionals[9], as well as the rapidly-changing skills need, and the persistent skills mismatches in the EU labour market, the EU promotes investment in education and training systems, anticipation of skills needs, matching and guidance services. The EU is committed to improving education levels by reducing school drop-outs to 10% or less, and by increasing completion of tertiary or equivalent education to at least 40 % in 2020.

At the same time, the Agenda advocates for the adoption of targeted approaches for the more vulnerable workers, and for the enhancement of stakeholders' involvement in the implementation of lifelong learning. Partnerships at national, regional and local levels between public services, education and training providers and employers, should identify training needs, improve the relevance of education and training, and facilitate individuals' access to further education and training.

The Bruges Communiqué *on enhanced European Cooperation in Vocational Education and Training for the period 2011- 2020* calls for a better and more intense communication "to involve the stakeholders: social partners, VET providers, civil society and learners" in the innovation and upgrading process of VET. In relation to this issue, one of the key strategic objectives set is to "promote partnerships between social partners, enterprises, education and training providers, employment services, public authorities, research organisations and other relevant stakeholders in order to ensure a better transfer of information on labour market needs and to provide a better match between those needs and the development of skills, knowledge and competence (…).The development of a common language aimed at bridging the world of education and training (..) and the world of work (…) should be continued (…)".[10]

- **Participation of people with disabilities in VET and employment in the EU**

The unemployment rate of people with disabilities in the EU is 2 to 3 times the general rate of the general population.[11] In 2010, the employment rate among people with severe disabilities was 44.1% and was only 19.5% for people with very severe disabilities.[12] People with learning or intellectual disabilities are even less likely to be in work than those with physical disabilities.[13]

[9] By 2020, the estimated shortage of ICT professionals could reach up to 900,000 http://ec.europa.eu/digital-agenda/en/grand-coalition-digital-jobs-0
[10] http://vetwork.eu/policy-context/
[11] European Trade Union Confederation and European Disability Forum, Joint Declaration, 2008, p 1
[12] European Commission, "Roadmap – EU disability strategy 2010-2020",2010 p 2
[13] European Agency for Development in Special Needs Education, European Partners of Successful Practice in Vocational Education and Training: Participation of Learners with SEN/Disabilities in VET, 2013, p 9

The European Commission noted in 2007 that the participation rate in education or training of young people aged 16-19 years with significant restrictions in work capacity was 63% compared to 83% for those without restrictions. More than half of the people with disabilities aged 25-64 had no qualifications beyond mandatory school leaving age, compared to one third of people with no restriction.[14]

The impact of the economic crisis has been highlighted in a study of the European Foundation Centre in 2012, which stated that, with exception of a few member states, the crisis led to increased unemployment rates for people with disabilities.[15] Cutting in public budgets for mainstream education and/or for special school education and for vocational training for young adults with disabilities has occurred in a series of Member states often -but not only- those that have suffered mostly from the crisis such as Greece, Portugal, Spain and Ireland.[16]

Chart 1: presenting the employment rates of people with disabilities in EU countries [17]

GEO/HLTH_PB	Difficulty in basic activities	No difficulty in basic activities	Limitation in work caused by a health condition or difficulty in a basic activity	No limitation in work caused by a health condition or difficulty in basic activities
European Union (28 countries)	47,3	66,9	38,1	67,7
Belgium	40,7	66,4	33,4	67,3
Bulgaria	30,7	61,8	17,8	62,1
Czech Republic	38,6	68,5	34,5	69,3
Denmark	46,7	78,1	41,4	80,0
Germany	51,5	72,1	35,8	72,4
Estonia	49,5	68,6	33,6	70,4
Ireland	29,8	60,9	21,6	62,2
Greece	35,5	58,5	29,8	58,9
Spain	44,3	60,5	33,8	62,0
France	56,2	66,1	59,6	68,0
Croatia	33,0	55,8	31,6	55,0
Italy	45,6	58,9	37,0	59,4
Cyprus	46,4	70,9	41,4	71,7
Latvia	50,8	62,6	40,7	63,1

[14] European Commission Communication, "Situation of disabled people in the European Union: The European Action Plan 2008-2009" COM (2007) 738 final, Brussels.
[15] European Foundation Centre, "Assessing the impact of European governments' austerity plans on the rights of people with disabilities", European report, 2012, p18
[16] Idem, p 32
[17] Eurostat 2014

Lithuania	40,4	63,2	32,5	63,9
Luxembourg	62,5	64,9	48,3	67,2
Hungary	23,7	61,1	18,1	60,9
Malta	34,4	59,2	29,9	60,5
Netherlands	42,7	80,1	39,4	80,4
Austria	60,3	75,6	48,2	76,4
Poland	33,9	63,9	26,2	63,9
Portugal	51,0	67,8	44,0	69,6
Romania	31,8	63,5	23,9	64,8
Slovenia	47,0	68,4	43,9	70,3
Slovakia	31,9	62,6	29,2	63,4
Finland	60,8	73,2	50,6	74,8
Sweden	66,2	75,7	61,5	76,6
United Kingdom	47,6	75,4	36,0	76,0
Iceland	66,9	84,0	66,8	85,2
Switzerland	69,0	81,6	65,0	82,5
Turkey	41,1	51,0	40,1	51,1

Chart 2: summarizing the participation rates of people with disability in education and training. [18]

GEO/HLTH_PB	Difficulty in basic activities	No difficulty in basic activities	Limitation in work caused by a health condition or difficulty in a basic activity	No limitation in work caused by a health condition or difficulty in basic activities	Total
European Union (28 countries)	2.033,375	41.280,609	1.454,6	41.161,101	43.562,75
Belgium	51,018	973,374	29,225	995,167	1.024,392
Bulgaria	:	541,687	:	542,17	544,075
Czech Republic	12,836	987,379	18,288	981,927	1.000,215
Denmark	43,53	624,738	48,609	619,253	668,268
Germany	392,017	6.356,301	135,143	6.078,569	6.922,166
Estonia	11,825	142,757	7,051	147,334	154,583
Ireland	11,834	442,793	9,869	444,492	455,303
Greece	6,41	753,47	4,309	755,112	759,88
Spain	79,421	3.048,58	95,48	3.018,042	3.131,107
France	263,457	4.564,037	141,091	4.599,922	4.845,238

[18] Eurostat 2014

Croatia	:	383,966	:	383,519	384,949
Italy	76,115	4.232,423	72,705	4.209,76	4.352,797
Cyprus	1,429	71,216	1,147	71,499	72,645
Latvia	9,906	192,712	6,968	195,65	202,619
Lithuania	7,92	354,33	4,689	357,561	362,25
Luxembourg	3,438	52,561	3,178	52,198	56,098
Hungary	12,739	938,86	11,995	939,477	951,923
Malta	:	34,552	:	34,162	35,218
Netherlands	148,142	2.069,397	127,442	2.087,12	2.219,896
Austria	68,645	685,96	30,813	723,791	754,604
Poland	103,606	3.982,872	90,143	3.996,336	4.086,478
Portugal	77,791	1.042,245	81,081	1.038,714	1.120,949
Romania	17,938	1.827,373	7,139	1.838,173	1.845,311
Slovenia	10,57	263,241	18,839	254,973	273,812
Slovakia	7,485	567,041	6,427	567,844	575,473
Finland	65,165	608,231	59,164	614,001	673,683
Sweden	115,979	1.017,357	109,021	1.012,86	1.134,681
United Kingdom	430,122	4.521,155	330,395	4.601,476	4.954,137
Iceland	6,496	34,095	8,492	31,729	40,803
Switzerland	100,193	664,521	79,77	675,656	766,016
Turkey	264,83	5.941,313	213,037	5.993,105	6.206,142

2. The ICT labour market in the EU

- **The general picture**

In 2009, the ICT sector value added in the EU amounted to €470 billion. This represented a share of 4.0% of EU GDP, a share that has remained stable over the last few years. Over 6.1 million people worked in the EU ICT sector, representing 2.7% of employment in the EU.[19] Telecommunications and Computer programming, consultancy and related activities represented almost three quarters of the total value added generated by the ICT sector in 2009.[20]

The recent economic crisis has accelerated the pace of economic restructuring, displacing many workers from declining sectors to unemployment, due to a lack of the skills required by

[19] European Commission Joint Research Centre, "The 2012 Predict Report: An Analysis of ICT R&D in the EU and Beyond", 2012, p 15

[20] Idem, p 17

expanding sectors. Now the first signs of economic recovery go hand in hand with difficulties in recruiting high-skilled staff.

In 2006, the rapporteur of the EU ICT taskforce warned that innovation uptake in Europe was highly dependent on the e-skills of the workforce, be it from the perspectives of the practitioner or user, as well as ICT-related business skills. Evidence, however points to growing e-skills gaps (either a shortage of absolute numbers of ICT workers, or a mismatch between supply and demand of specific skills) and a decline in the number of students studying IT and computer science. To sum it up, Europe's educational and professional training systems do not sufficiently deliver the 21st century skills needed to ensure workforce competitiveness and economic innovation. If not addressed, e-skills gaps risk slowing Europe's productivity growth and holding back business development and the competitiveness of European companies in the global market in virtually all industry sectors.[21]

In 2013, The Pan European ICT & eBusiness Network for SMEs (Pin-SME) together with other stakeholders, pledged to enforce the existence of a European standard for e-skills. They advocated to support the adoption of the e-Competence Framework as the European standard for e-skills. While ICT is a driving force for Europe's economic and societal changes, SMEs indeed strive to recruit skilled people. The differences among the formal education systems in the various countries and among the private trainings and certifications schemes, which compete in the market, create a highly fragmented panorama of ICT competences. Such fragmentation harms the mobility of ICT practitioners in Europe and decreases the SMEs' chances to hire skilled labour.

- **Barriers to employment in the ICT labour market**

Barriers to employment of people with disabilities in the ICT sector reflect mostly the barriers encountered in other economic sectors. They can be structural barriers such as inaccessibility, lack of adapted transport, institutional barriers such as unfavourable legislation (i.e. people losing benefits when working), or high competition. Yet, barriers preventing access to the employment market are most often based on misconceptions on a person's abilities.[22]

There are indeed strong psychological or attitudinal barriers, for example:

- Lack of awareness and apprehension about disability;
- Lack of knowledge about supports available;

[21] EU Task Force, "Fostering The Competitiveness of Europe's ICT Industry", Report, November 2006. P 26
[22] http://www.edf-feph.org/Page_Generale.asp?DocID=13379

- Prejudice about sickness absence;
- Health & Safety concerns;
- Prejudice about inordinate supervision.

Next to these, one may also note the possibly poor applications and interview skills of people with disabilities, low self-esteem, insufficient skills/experience, the apprehension of carers, or the issue of disclosure of disability.

Furthermore, there are also barriers encountered by people with disabilities when trying to acquire ICT skills. These concern mainly the inaccessibility of the ICT itself, language barriers, and both the affordability and availability of the technology to users and their trainers.[23] This statement calls for the companies to invest in diversity and inclusion strategies.

- **Skills required by the future ICT labour market**

The future ICT labour market requires both technical and transversal skills from its workforce.

A survey of employers about upcoming technical skills needs was conducted by Cedefop in 2013. It found that there was greatest need for software and applications developers and analysts. Customers expect more advanced, accurate and faster programming. This includes work at the human machine interface, mobile technology apps, mobile phones/tablets and applications technology, cloud computing, software architecture, social media and networks, e-commerce, conflict resolution, moving software to the web, 3-d modelling, processing and analysing of large amounts of data, adopting and introducing standards, development of new business areas, integration of social networks with company systems and new methods of information processing.[24]

The skills categories where demand currently exceeds supply, as highlighted by the Irish Internet Association are: web and mobile developers; search engine optimization managers; social media and community managers; e-commerce managers; digital designers; and digital agency account managers (media planning and buying).[25]

The German Federal Ministry of Education and Research's 2010 initiative to pinpoint the skills and qualifications needed in the future in relation to Web 2.0[26] for medium-skilled employees in the ICT sector highlighted technical skills such as: communication in virtual environments; data

[23] EDF panel discussion 'New skills for new jobs. Challenges and opportunities for persons with disabilities',11 February 2014
[24] "Piloting a European employer survey on skills needs, illustrative findings", Cedefop research paper n°36, 2013, pp 33-36
[25] "Critical Skills Retention & Development Programme", Irish Internet Association, 14 July 2011, p 3
[26] "Web 2.0" refers to the broad spectrum of inter-active Internet applications.

privacy, legal aspects and confidentiality requirements; collaborative skills in virtual work settings; handling of information and knowledge; and multitasking. [27]

In regard to transversal skills, the European Commission pinpoints the tendency towards the broadening of the required skills portfolio at all occupational levels, linked to "non-routine" tasks. For example, ICT professionals have to develop skills in marketing or management. In many knowledge-intensive sectors, both managerial skills and scientific knowledge are needed. This reflects the growing demand from employers for transversal key competencies.[28]

In 2008, the Cedefop pointed out that modern organisations seem to attach more value to 'soft skills' than in the past (e.g. teamwork, creativity, entrepreneurship, leadership and management, etc).[29] A European Employer survey presented in 2013[30] highlighted the importance of the following skills in the ICT sector:

- writing instructions, guidelines, manuals and reports (*advanced writing*) is reported to be important for technicians and engineers for 84,1% of respondents;
- foreign language is important for engineers, developers, technicians, database professionals (75,9% of respondents) ;
- capacity to learn new methods and have new ideas (learning) is reported to be very important in the IT sector with almost 100 %;
- adapting to new equipment or materials (adapting);
- instructing, training or teaching others;
- determining own tasks, working methods and speed of tasks (task discretion);
- mathematical literacy;
- solving complex problems;
- making speeches or presentations, communication skills;
- and project management skills.

EU-level analyses provide an interesting overview of the skills needed by ICT labour market, and of what VET providers should consider when designing curricula. However, similar exercises need to be completed at national/regional/local levels to ensure maximal relevance of the VET provision against the local labour market.

[27] For more details see: Frequenz, The future skills needed for Web 2.0: Summary, 2013. The project "Zukünftige Qualifikationserfordernisse bei beruflichen Tätigkeiten auf mittlerer Qualifikationsebene aufgrund der Auswirkungen von Web 2.0 (web2skills)" was carried out on behalf of the German Federal Ministry of Education and Research (BMBF) from April 2009 through to May 2010.
[28] Communication form the Commission: New skills for new jobs
[29] "Skills mismatch: the role of the enterprise", Cedefop research paper n°21, , Luxembourg, Publications Office of the EU, 2012. p50
[30] "Piloting a European employer survey on skills needs, illustrative findings", Cedefop research paper n° 36, Luxembourg, 2013, pp 33-36

3. Cooperation mechanisms and structures

This section proposes an insight into existing cooperation mechanisms, structures, strategies and tools that serve the definition of skills needed by employers in the ICT sector, the development of relevant VET curricula, and the design of adequate transition supports. The actors concerned are VET providers from the specialized and mainstream fields, employers in the open labour market, employment agencies, authorities at local and national level responsible for employment and education.

The identification of skills needs in the ICT-sector is most often not specifically relevant to people with disabilities. As a consequence, many initiatives, mechanisms or structures of cooperation between VET providers and ICT employers do not adopt a specific disability-focus. However, specialized VET providers can find inspiration in these mechanisms or join mainstream initiatives in the ICT sector.

- **Adaptation of VET curricula**

ICT-sector occupational profiles are regularly reviewed, usually by national agencies or ministries in charge of overseeing the development of VET curricula. For example, the Ministry of Education in Denmark has established a procedure to systematically measure the relevance of VET courses using student employment rates upon VET completion.[31] Qualifications are assessed by working groups in which experts from VET schools, employer associations and the sectoral trade union take part.[32] In Germany, temporary working groups are set up in which the social partners and the training systems co-operate. The reviews of occupational profiles give precious indications to VET providers or to the body in charge of defining the programmes.

In the majority of the EU countries, there is progressive work towards setting up national qualification systems, including adapted vocational qualifications for learners with special educational needs. The national systems define the structure of levels based on the **European Qualifications Framework** (EQF).[33] EQF enables access to all adult education and training based on key competences within frames of reference in order to obtain an

[31] An employment rate of 75% is set as a target and programmes that do not meet this figure are required to explain the shortfalls. For more information see: European Commission, Staff Working Document *Commission staff working document, accompanying the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions New Skills for New Jobs , Anticipating and matching labour market and skills needs*, COM(2008) 868 final, p 54

[32] In Hungary, each working group is responsible for a single qualification, and not for all qualifications in a sector; and the National Training and Adult Education Institute coordinates the work of all working groups. See ECROYS and KBA, "Final report – Sector Councils on Employment and Skills: a study into their feasibility and potential impact", 2010, p 26

[33] European Commission, 2013

academic certification.[34] Linking VET to EQF is a guarantee to integrate labour market considerations in VET and many EU countries[35] have their VET programmes certified and regularly reviewed by a statutory agency following the National Framework of Qualifications based on the EQF.[36]

The European e-Skills Association (EeSA)[37] has developed the **European e-Competence Framework on ICT** as a tool to support mutual understanding through the articulation of competences required from ICT professionals in order to support decision-making in relation to the training and assessment of ICT professionals, as well as the selection and recruitment of candidates.[38]

In order to cope with labour market demands, national governments develop national VET curricula in agreement with representatives of employees, employers and professional associations from the relevant area of activity. The European Commission supports the set-up of European **Sector Skills Councils**, at both European and national level, designed to anticipate the need for skills in specific sectors more effectively and achieve a better match between skills and labour market needs. A 2010 report of the European Commission[39] found that in the ICT field, in order to improve the match on the labour market between demand and supply in quantitative (jobs) and/or qualitative (skills and competencies) terms, the current national-level Councils[40] run the following activities: analysing quantitative and qualitative trends in the labour market; developing policy proposals to bridge the quantitative gap; developing policy proposals to bridge the qualitative gap; fostering co-operation between firms and VET providers; implementing programmes/actions to bridge the gap.

With regards to the co-operation between firms and VET providers, the first task is the identification of emerging and changing skills needs in the sectoral labour market. The second task is the development of national level occupational standards, qualifications and curriculum outlines. The national Skills Councils included stakeholders such as: education and training actors (in two out of three cases); parental associations and associations of former students; specific sectoral representatives/interest organisations;[41] and labour market re-integration institutes. The report also outlines recommendations drawn by the national Sector Skills

[34] See Halász and Michel, *Key Competences in Europe: interpretation, policy formulation and implementation*, European Journal of Education, 2011
[35] Such as Latvia, Germany, Ireland and Spain, among others
[36] Cedefop, 2010
[37] A community of ICT-businesses such as Microsoft, Oracle, Cisco, CEPIS, EXIN, Linux Professional Institute, CIO, etc.
[38] For more information see: http://www.ecompetences.eu/
[39] "Final report – Sector Councils on Employment and Skills: A study into their feasibility and potential impact", ECORYS, Rotterdam, March 2010
[40] three in Belgium, two in Denmark, one in Estonia, one in Finland, two in UK, two in the Netherlands, two in Romania
[41] For example a Chamber of Commerce

Councils, including; focussing on broadly defined sectors instead of specific occupations; allowing sectors to define themselves; taking good account of the needs of SMEs; ensuring the participation of employers and employees and, where relevant, training providers and government in the board; encouraging Skills Councils build up partnerships with training providers; and focusing on what keeps employers attentive.[42]

Human resource policies used by enterprises in Europe inform us whether skill mismatches emerge and persist over time. Filling of vacancies is likely to improve if there is better coordination between recruitment strategies of firms, public employment services and private providers. Next to large formal platforms and initiatives, there are numerous interesting ways for VET providers and employers to cooperate, more informal and more local. The development of relevant vocational education and training curricula needs to take into account the socio-economic reality of the regions. VET programmes should be linked to skills required in the local labour market. Regional level authorities are responsible for representing the interests of their regions with regard to national policies and legislation. Subsidiarity allows for flexibility and a certain extent of freedom at local level to VET providers to act in informal way and experiment practices. It may be easier to involve hesitating businesses in this way, with no formal obligation nor framework. Employers can be encouraged to co-invest and participate in the activities of education and training institutions. These local partnerships can help develop and update skills profiles, multidisciplinary curricula and qualifications and establish a climate of trust.

At school level, flexibility is appreciable as the head teacher or the school board can decide on the in-service training possibilities for school staff. Moreover, the provision of a range of study pathways in upper secondary schools supports the learners' choices that are fundamental to consider and that are the basis of the motivation for the student to acquire the required skills and take part in education.

Individualized, person-centred learning pathways in VET are essential especially with regards to persons with disabilities. The definition of curricula at national level should not impede the implementation of individualized pathways in VET. In the case of mainstream VET, quality individualized support should remain available to accommodate all needs. On the other hand, specialized VET should provide with pathways and supports for students to integrate to mainstream. Quality VET should not only be adapted to the needs of the labour market, and should also be adapted to the need of every individual. While individualized VET practices are

[42] Final report – Sector Councils on Employment and Skills: A study into their feasibility and potential impact", ECORYS, Rotterdam, March 2010

effective, government-imposed curricula, accountability and national examinations make the implementation of this pedagogy at higher educational levels difficult.[43]

- **Cooperation mechanisms on-the-job training**

According to the European Agency for Development in Special Needs Education, the ideal extent of flexibility in a vocational system is conceptualised as a **'dual system'**, which considers both education and training and maximises the connection with local market demands and existing jobs.[44] Dual VET systems offer an alternation of in-class time and time in enterprise, be it under the form of more or less frequent alternation like apprenticeship, once-off internships during or at the end of the curriculum. In dual VET systems, the practical on-the-job experience is a formal requirement to obtain the qualification.

The Bruges Communiqué *on enhanced European Cooperation in VET for the period 2011-2020* calls for "cooperation models [between VET and] companies and professional branch organisations" and states that "work-based learning carried out in partnership with businesses and non-profit organisations should become a feature of all initial VET courses.[45]

On-the-job learning is a successful and practical form of cooperation between VET providers and employers. It helps adjust the contents of the VET curriculum with real-time and real-conditions training in the enterprise as well as helping students become familiar with the world of work and the employers and colleagues become familiar with disability.

As a general rule, companies will more readily participate in dual VET systems if they see a concrete benefit and if adequate supports are made available. This is why counselling, the possibility to test assistive aids, support in workplace adaptation and incentives are essential to help them develop and make the best use of competences in the work place. Employers should be encouraged to co-invest and participate in the activities of education and training institutions, particularly in higher education and vocational education and training; and facilitate the provision of work-based learning, from apprenticeships to industrial PhDs. In Finland for example, even though VET takes place mostly in institutions, all qualifications include at least 20 credits (6 months) of instruction in the workplace.

43 Ahl, 'Equality and the freedom to choose the "what and when" of schooling: Students with special educational needs in timetable-free settings', 2007, European Journal of Special Needs Education 22(2) *in* European Agency for Development in Special Needs Education (2012) "Vocational Education and Training: Policy and Practice in the field of Special Needs Education – Literature Review", 2012, p 33

44 (Freedman, 2008) in European Agency for Development in Special Needs Education (2012) *Vocational Education and Training: Policy and Practice in the field of Special Needs Education – Literature Review*, Denmark, p33

45 http://vetwork.eu/policy-context/

Policies are needed to increase high-quality apprenticeships and internships. Evidence shows that young people on such schemes are more likely to acquire useful skills and attitudes to find suitable work.[46] Yet, the 2009 European Company Survey (ECS), which surveyed a smaller sample of European establishments, indicated that 38% of firms provide no training, with smaller firms generally found to be less likely to offer training.[47] Experts have highlighted that government grants and subsidies for training enterprises increase the number of VET learners and enhance the chances of offering working contracts to learners with special educational needs.[48]

- **Cooperation mechanisms to support transition to employment**

In the transition to work, the aim is to reduce dropout rates during the time between school and employment. VET programmes should thus feed close links and provide supports to facilitate a smooth and sustainable transition of the graduates with disabilities to work in the mainstream environment.

Past positive experience of cooperation with VET programmes, through the participation in VET programme with internship or apprenticeship for example, play a prominent role in building the trust, defining the engagement and the readiness of a company to hire a graduate with disability. Giving sufficient time to achieve positive experiences and build trust is essential to achieve successful work placements.[49]

The transition from education to employment needs to be backed by adequate support during the transition phase. VET professionals need to inform learners about employment possibilities, support them with job applications, inform and support employers in the administrative procedures, understanding and benefiting from possible supports, and facilitate contact between both parties. To be able to adequately support learners and employers during the transition phase it is beneficial to: maintain good connections with local employers; offer practical training and supported employment models; have staff and resources available throughout the transition and into work; adapt pedagogical methods and techniques if required and implement individual plans.[50]

[46] "Skill mismatch: more than meets the eye. Briefing Note Cedefop March 2014
[47] European Centre for the Development of Vocational Training, "Skills mismatch: The role of the enterprise", 2012, p 38
[48] European Agency for Special Needs and Inclusive Education, Vocational Education and Training: Summary of Country Information, 2014, Denmark, p 17
[49] For more information see European Agency for Development in Special Needs Education, European Partners of Successful Practice in Vocational Education and Training: Participation of Learners with SEN/Disabilities in VET, 2013, p 29
[50] Idem, p 30

Incentives for employers may include financial supports such as reduced social security expenses or tax reductions. Besides such financial incentives, a large number of local programmes have benefited from European Union grants. The European Social Fund initiatives such as EQUAL and Euroguidance centres from the Lifelong Learning programme are important tools to further promote and continue positive outcomes. European cooperation within the Leonardo da Vinci programme has had a great impact in several countries.[51]

Mentoring has been recognised as a valuable tool for professionals to use in order to meet the needs of learners and employer. The role of mentorship is typically defined as an adult acting as a guide, role model, teacher and friend, to a less experienced and often younger protégé or mentee. For the learners, the benefits of the mentoring relationship include experiencing how others live their lives, which motivates them to set themselves high aspirational goals such as being as independent as possible or pursuing educational or vocational goals.[52] For the employers, mentoring is a flexible solution to adjust skills to the needs of the enterprise.

In some cases, placement before training appears to be a successful option. For instance, for people with severe mental illness, effective implementation of Individual Placement and Support instead of vocational rehabilitation can mean an increase in work in the competitive labour market and search for appropriate employment directly, without a training phase.[53]

[51] European Agency for Special Needs and Inclusive Education, 2014, p 24
[52] Kroll, 2008; Ljungberg et al., 2011, in European Agency for Development in Special Needs Education, "Vocational Education and Training: Policy and Practice in the field of Special Needs Education: Literature Review", 2012, Denmark, p 36
[53] Scholars from Sweden have implemented a programme with a group of 65 men and women below 35 years of age with mental illnesses. After one year, 25% of the participants in the individual placement and support programme were employed and 14% were involved in educational programmesIdem p 35

III.Case-studies

Case Study 1 - European Disability Forum and Microsoft joint advocacy initiative[54]

This practice is an advocacy initiative at EU level, led by the European representative organization of people with disabilities and Microsoft. The European Disability Forum and Microsoft have committed to finding new ways to strengthen e-skills and facilitating the creation of new jobs. The cooperation between EDF and Microsoft intends to promote the dialogue among EU institutions, the private sector, and citizens in order to ensure that all existing and new employment opportunities are open to persons with disabilities. It tackles the accessibility of ICT for persons with disabilities as well as the access to ICT-related jobs, one being a precondition to the other.

EDF and Microsoft publicized their initiative by jointly organising a panel discussion "New Skills for New Jobs: Challenges and opportunities for persons with disabilities"[55] about e-skills and ICT-related jobs on 11 February 2014 at the European Parliament. The objective was to share information on what is needed and what is expected in the ICT sector from industry players, persons with disabilities and policy makers. During this event, the representatives of the ICT business as well as of persons with disabilities encouraged the e-literacy of people with disabilities to allow them to take advantage of the potential of ICTs. The necessity was stressed to mainstream accessibility requirements on the ICT field through European and national legislation and standards, and to make sure that the investment on e-skills or digital literacy takes into account the special needs of persons with disabilities. Member States were encouraged to modernise their agenda of higher education, especially for young people, taking also into account life-long education programmes.

The results of a survey were reported, outlining that 44% of the 76 countries surveyed (covering 72% of the world population) acknowledged that they do not have any policy or programmes promoting assistive technologies or accessible ICT for the workplace accommodation. The worldwide trend of "Bring Your Own Device" (BYOD) in the ICT sector, was emphasized, as it could be a real opportunity for persons with disabilities, since they can work with the hardware and software which have been adapted by them.

[54] http://www.edf-feph.org/Page_Generale.asp?DocID=22112&thebloc=33392
[55] EDF panel discussion 'New skills for new jobs. Challenges and opportunities for persons with disabilities',11 February 2014

This advocacy initiative should be saluted for it gathers policy-makers and an important actor of the ICT economic sector in Europe, and gives echo to the issue of ICT-skills of people with disabilities and needs of the labour market. Yet, the concretization of the findings on skills needs shall call for the VET service providers' involvement.

Case Study 2 - DICE project: Digital Inclusion Champions in Europe

DICE is an EU-funded project that started in October 2013 for two years, aiming to help people with disabilities build the digital literacy skills needed to transition from VET centre training to mainstream education and employment. It involved the creation of an online community based on a peer support model, promoted and sustained by Digital Inclusion Champions. DICE transfers innovation from a previous Leonardo project, Gateway, using online content on assistive technologies aimed at people with disabilities, educators and employers. It adds social media and user generated content to create a dynamic community of peer support relationships within and across stakeholder groups – people with disabilities, VET digital skills trainers, mainstream educators and employers.

The DICE project can be considered as a good practice for improving the digital literacy of people with disabilities, and as such opening the doors of ICT-sector jobs and other jobs requiring the use of ICT to people with disabilities. At the same time, DICE project connects people with disabilities, VET actors and employers within a large peer support community.

Digital Inclusion Champions of each stakeholder type will be motivated and appointed to the role of promoting the use of the DICE community to their peers, during and after the funding period. The DICE community will be spread internationally via innovative 'twinning' relationships between VET centres. The consortium involves the following partners: National Council for the Blind of Ireland[56]; PhoenixKM (Belgium)[57]; Fundacja Instytut Rozwoju Regionalnego (Poland)[58]; Interprojects (Bulgaria)[59]; Institute of Art, Design & Technology (Ireland)[60]. Every partner can implement the DICE community within their own countries and help spread it internationally.

Although the project has not delivered its outcomes yet, the initiative is promising.

[56] A provider of rehabilitation services, counselling, employment support and training notably in computer skills and the use of assistive technologies.
[57] PhoenixKM BVBA has extensive expertise in the fields of accessibility consultancy. It is focused towards the integration of people with disabilities and aims to achieve its goal by aggregating knowledge, expertise and experience in the field of education, training, and employment.
[58] Non-profit NGO providing people with disabilities with trainings in information technology and assistive technologies notably.
[59] A training provider in the field of accessibility issues, career orientation and guidance, employment.
[60] A higher education institute, coordinator of the Gateway project, to ensure transfer of the most effective aspects of Gateway.

Case Study 3 - AHEAD - Willing Able Mentoring (WAM)[61]

AHEAD, the Association for Higher Education Access and Disability is an independent non-profit organisation in Ireland, working to promote full access to and participation in further and higher education for students with disabilities and to enhance their employment prospects on graduation. AHEAD works with graduates and employers through the GET AHEAD Graduate Forum and the WAM Mentored Work Placement Programme.

In striving to highlight the business case for diversity and improve inclusive practices in the workplace, WAM collaborates with a large number of major private and public sector employers through an Employer Network. Employer representatives indicate that this network is, for them, one of the most beneficial aspects of the programme, where they can learn much from each other.

WAM is a work placement programme which aims to promote access to the labour market for graduates with disabilities and build the capacity of employers to integrate disability into the mainstream workplace. Participating employers (WAM Leaders) collaborate with WAM to **offer mentored, paid work placements** for graduates with disabilities and building in-house staff competencies through this direct engagement with graduates with disabilities. This partnership brings graduates with disabilities and WAM's network of employers together so that both can benefit from each other – ensuring genuine learning opportunities for all. WAM is unique in that it seeks to engage and support employers in order to simultaneously develop the potential of employers and graduates with disabilities.

WAM Community members represent a larger group[62] who come together twice a year to network and build capacity for staff at seminars based on themes identified by network members. Community members are also afforded the opportunity to take WAM placements, become a WAM Leader and build on their learning whenever they are ready..

Piloted from 2005 to 2007 under the EQUAL WAM programme and established in 2008. To date, the AHEAD WAM Programme has provided over 175 placements for graduates with disabilities.

The programme has received positive comments from both employers[63] and past mentees[64]. However, the programme faces uncertainty about continuing government funding.

[61] More information here www.ahead.ie, and here http://www.ahead.ie/wam_employers
[62] Community members include Abbott, Bank of Ireland, O2, Microsoft, Dell, Deloitte, IBM, Arthur Cox, Enterprise Rent a Car, Irish Life and Permanent, CITI Bank, National Treasury Management Agency, ESB, Savills, Coviedin, Public Jobs.ie, University College Cork and Smart Solutions
[63] See: http://www.ahead.ie/wam_employers

'It gives managers the opportunity to see what graduates with disabilities can do and gives graduates with disabilities the opportunity to get work experience and confidence.'

Case Study 4 - CDI ISI Curriculum of the CRM in France[65]

CRM, a provider of ICT development training, in order to increase the number of potential students, organised[66] **special curricula which would allow people to reach the level required to enter the engineer training** which is required by most of the big ICT companies in France. This CDI ISI curriculum programme fits the needs identified by the companies of the ICT sector and allows an entry in the engineer training courses in cooperation with the CNAM. It is possible to combine the two courses, CDI[67] in one year and ISI[68] for the two next years.

During the first period, the person's status is that of a vocational trainee. During the next two years he/she must sign an Apprenticeship contract with a company and thereby gain private-law contract employees status. A four month work experience placement during the first part can be used as a trial period for the partner companies and as an integration period for the students.

Objectives

- Validating a level II grade to integrate into the engineer curricula
- Giving the ICT company a chance to hire people with disabilities at a level corresponding to their needs
- Giving our clients a good job opportunity

Actors involved from the CRM include:

Project managers and Training manager:

- Planning and funding the curriculum, planning, management of the pedagogic team
- Sourcing students, and managing relationships with the companies
- Connecting students and employers
- Steering the group of partner enterprises (meeting, reporting, cooperation)

Job-coaches: Helping students gain access to a company, as well as guidance with CV and interviews

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[64] See: http://www.ahead.ie/wam_graduate
[65] Contacts: Didier Roche, training manager didier.roche@arfp.asso.fr
[66] In partnership with EDF, BNP Paribas, Cap Gemini Sogeti and Thales. These fund the curriculum, manage work experience, and hire students in an Apprenticeship contract. Also OPCA: "Accredited collecting fund for training" funds a part of training for enterprises and ASP: "Agency for Services and Payment" pays the salary of students for the first year
[67] CDI: Designer ICT Developer, level 5
[68] ISI: Engineer in Information System, level 7

Teachers: Provide technical ICT training and pedagogic support

Multi-disciplinary team (social, medical): Support, as needed

Administrative support: Contract, invoices and payments

Features of the curriculum include:

1. On-site training in the CRM by CRM teachers
2. Validated by a French ministry of Labour degree «Concepteur Développeur Informatique» in English Designer ICT Developer (EQF level 6)
3. Accommodation and meals on site
4. Medico, psycho, social support in the CRM
5. Target public : PWD with a level IV
6. Minimum size for the group: 8 persons

How it works:

- It is necessary to have a solid ICT team with a good experience of ICT training in the level III and II.
- A project manager is present to help the training manager organise the curriculum and create new contacts with ICT partners.
- A data base for finding future students is created.
- Work experience provides a good way of creating contacts between companies and students.
- Collaboration with employers is the key.

The project is a good opportunity for companies to communicate about their diversity policy and promote internal integration of disabled persons. Companies view the project positively, but often don't want to change their recruitment habits, since the clients are in competition with university students who are younger and more attractive to managers.

All the students in this operational part of the project are happy about the opportunity provided, even if they are not always certain about the idea of signing an Apprenticeship contract to finalise their project. For some, searching for work experience and signing contracts can generate stress. Help is provided for people in most difficulty.

It is relatively easy to obtain funding, a little harder to obtain work experience but often difficult to finalise recruitment. The support of all the stakeholders is required to achieve the final objective: employment.

IV. Conclusions

This European mapping does not intend to provide a comprehensive view of practices: there are numerous and are examined in the national mappings. It rather complements the national mappings by highlighting European approaches to the issue of cooperation between VET providers and labour market actors and some initiatives or practices at EU or transnational levels. As a brief conclusion, a few remarks shall be highlighted.

Cooperation initiatives should focus on what keeps the employers attentive. Messages and actions should be clear and straight-forward, and address the lack of employees or the mismatch of workforce skills that they concretely and directly encounter.

More attention should be paid to supports needed by people with mental disorders. This target group, despite equal technical skills, has a lower placement rate in employment following VET, due to poorer personal skills such as sensitivity to stress and low communications skills. These are real barriers to employment and employers expect personal skills to be an integral part of the VET programmes. Psychic troubles should be paid more attention in the cooperation between employers and VET providers, because their evocation can be more frightening for some employers.

The qualification of the VET staff is crucial for quality VET provision. VET trainers need to be regularly updated in relation to technological developments in order to follow the rhythm of innovation of the ICT sector. Lifelong learning opportunities should be better promoted, or created, to VET professionals, also through the cooperation between VET teachers and ICT employers.

The learners with disabilities in VET should be fully integrated in the cooperation process of VET organizations with employers. They are the direct beneficiaries of such cooperation and play an important role to define their needs and how they can best benefit from curricula definition, dual VET systems and transition supports.

Inclusion in mainstream VET is possible, yet relevant supports may be required in to adequately meet the needs of each individual with a disability. This dimension is important to prevent drop-outs from mainstream VET and mainstream employment. Moreover, mainstream actors may require certain training on approaches and attitudes towards promoting equality and inclusion.

Wide policy and advocacy initiatives are to be continued to raise awareness and define frameworks of action, however local actions, closer to the actual individual employers and other stakeholders, are required to make things move on the ground, where people actually are.

Simple, easy-to-manage and local networking initiatives may be very efficient in leading to longer term and successful cooperation schemes between actors.

V. References

- ECORYS Nederland BV in cooperation with KBA, Final report – Sector Councils on Employment and Skills: A study into their feasibility and potential impact, Rotterdam, March 2010. Available at: http://ec.europa.eu/social/BlobServlet?docId=4763&langId=en
- European Agency for Special Needs and Inclusive Education, Vocational Education and Training: Summary of Country Information, 2014, Denmark. http://www.european-agency.org/sites/default/files/VET%20Summary%20of%20Country%20information%202014.pdf
- European Agency for Development in Special Needs Education, European Partners of Successful Practice in Vocational Education and Training: Participation of Learners with SEN/Disabilities in VET, 2013. Available at: http://www.european-agency.org/sites/default/files/european-patterns-of-successful-practice-in-vet_vet-report_en.pdf
- European Agency for Development in Special Needs Education, Vocational Education and Training: policy and practice in the field of Special Needs Education: Literature review, 2012. Available at: http://www.european-agency.org/sites/default/files/vocational-education-and-training-policy-and-practice-in-the-field-of-special-needs-education-literature-review_VET-LiteratureReview.pdf
- European Centre for the Development of Vocational Training, Piloting a European employer survey on skills needs, illustrative findings, Cedefop research paper n° 36, Luxembourg, Publications Office of the EU, 2013. Available at http://www.cedefop.europa.eu/EN/Files/5536_en.pdf
- European Centre for the Development of Vocational Training, Skills mismatch: The role of the enterprise, Cedefop research paper n°21, Luxembourg, Publications Office of the EU, 2012. Available at: http://www.cedefop.europa.eu/EN/Files/5521_en.pdf
- European Centre for the Development of Vocational Training, Piloting a European employer survey on skills needs, illustrative findings, Cedefop research paper n° 36, Luxembourg, Publications Office of the EU, 2013. Available at http://www.cedefop.europa.eu/EN/Files/5536_en.pdf
- European Disability Forum panel discussion, New skills for new jobs. Challenges and opportunities for persons with disabilities, 11 February 2014
- European Foundation Centre, Assessing the impact of European governments' austerity plans on the rights of people with disabilities, European report, 2012. Available at: http://www.enil.eu/wp-content/uploads/2012/12/Austerity-European-Report_FINAL.pdf
- EU Task Force, Fostering the Competitiveness of Europe's ICT Industry, Report, November 2006. Available at: http://ec.europa.eu/enterprise/sectors/ict/files/icttf_report_en.pdf
- European Trade Union Confederation and European Disability Forum, Joint Declaration, 2008. Available at: http://cms.horus.be/files/99909/MediaArchive/pdf/Microsoft%20Word%20-%20Projet%20de%20d%C3%83%C2%A9claration%20commune%20de%20la%20CES%20et%20du%20FEHP_EN%20FINAL.pdf

- Frequenz, The future skills needed for Web 2.0: Summary, 2013. Available at: http://www.frequenz.net/uploads/tx_freqprojerg/EN_Summary_web20_final.pdf
- Halász and Michel, Key Competences in Europe: interpretation, policy formulation and implementation, European Journal of Education, Volume 46, Issue 3, September 2011
- NACE - Statistical Classification of Economic Activities in the European Community, Revision 2 (2008). Available at:
- http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC&IntCurrentPage=1
- Irish Internet Association, Critical Skills Retention & Development Programme, 14 July 2011
- Regulation (EC) No 1893/2006 of the European Parliament and of the Council of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90
- Stančík and Desruelle, The 2012 Predict Report: An Analysis of ICT R&D in the EU and Beyond, JRC Scientific and Policy Reports, European Commission Joint Research Centre, Institute doe Prospective Technological Studies, 2012, Report EUR 25539. Available at: http://is.jrc.ec.europa.eu/pages/ISG/documents/OnlineversionFINALPredict2012withnumbersv2.pdf
- Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation
- European Commission, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - Equal opportunities for people with disabilities: A European Action Plan, COM/2003/0650 final.
- European Commission, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions New Skills for New Jobs. Anticipating and matching labour market and skills needs, COM(2008) 868/3.
- European Commission, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions - Situation of disabled people in the European Union: the European Action Plan 2008-2009, COM/2007/0738 final.
- European Commission, Staff Working Document Commission staff working document, accompanying the Communication from the Commission to the European Parliament, the Council, the European
- European Union Disability Strategy 2010-2020: a renewed commitment to a barrier-free Europe, COM(2010) 636 final.

List of websites

- Ahead website: www.ahead.ie
- European Disability Forum website: http://www.edf-feph.org
- European Commission website: http://ec.europa.eu
- European e-Competence Framework: http://www.ecompetences.eu/
- Eurostat: http://epp.eurostat.ec.europa.eu
- Vet work: http://vetwork.eu