

## ECO-Center needs analysis

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‘ECO-Center needs analysis’ represents an important intellectual output of the project, a prerequisite for establishment of the e-scheme for improving the accessibility of learning opportunities for adults. The survey have foreseen performance of desk research in each partner country conducted to gather up-do-date information and provide detailed analysis of the state of art in respect to the following main topics:

- Current status in clean environment sector with emphasis on shortcomings / risks;
- The potential of this sector in implementation of national policies for educating adults learning providers, employees, job seekers, workers at risk of losing their jobs, individuals affected by unemployment, restructuring and career transitions;
- Principles of adult education in the planning and development of programmes/courses
- Environmental education: structure, operation and contribution to career development;
- Needs for up- and re-skilling of adults educators in clean environment;
- Bridge building between EQF and ECVET validation instruments and recognition of skills and competences adopted via adult education.

The needs analysis was organized during project ‘Preparation’ phase (1<sup>st</sup> – 5<sup>th</sup> month of project commencement) and comprises 2 stages:

1<sup>st</sup> stage: Needs analysis strategy establishment and gathering of data. During this stage the strategy for performance of the needs analysis was determined; the survey methodology and algorithm for gathering of data were specified and the rules for processing of the accumulated information were arranged. The project partnership as a result of its common decision has specified the main issues to be tackled by the needs analysis and have worked out an auxiliary questionnaire in order to facilitate the survey work (*see Annex I*).

2<sup>nd</sup> stage: Needs analysis, data processing and conclusion launching. Along this stage the desk research data and those collected from questionnaire respondents were gathered and processed at national level. The national reports thus elaborated comprise country specific overview on

partners' national ecology policies, the employment prospects and programmes, the relevant training methods and curricula, and the compliance of national requirements with EU education standards (*see Annex 2*).

The summarized national results lead to the issue of a synthesis outcome statement on the current state of art in ecology development in terms of e-training of adult learning providers in compliance with the EU education standards and the concept for sustainable development.

### **What is sustainable development?**

The Brundtland Commission coined the term "sustainable development" in 1987 and proclaimed it as a model for future environmental policies of all countries in the world (Brundtland: Our Common Future). The Commission requests that sustainable development is an economic-social development in which the economic, ecological and social objectives must be reconciled. The needs of people living today will be met without compromising the needs of future generations. Economic, ecological and social developments are to be regarded as an internal unit. Thereafter, sustainable development refers to an economic, ecological and social development, which ensures the natural livelihood of present and future generations.

In the following the guiding principles of sustainable development are briefly presented: Essential criteria here are the preservation of natural diversity (biodiversity) and the safeguarding of natural resources soil, water, air, vegetation, etc.

#### ***Economic viability***

Objective of sustainable development is to slow down the ever growing material and energy flows and the efficiency in materials and energy (efficiency strategy). Here are important criteria that

- renewable resources and energy sources are used more (to the extent of regeneration),
- the use of non-renewable resources and energy will be reduced and their substitution will be increased by renewable energy,
- emissions (in orientation on the absorption capacity and the responsiveness of affected natural systems) and

- the use of risk technologies will be minimized.

### ***Social justice***

The key objective of social justice includes the justice within a society, between societies or generations. In addition, the same claims of all individuals and peoples are involved in the use of natural resources, as equal rights to development styles and models of sustainable lifestyles (sufficiency). With this guiding principle, however, it is not thought to solve the distribution and justice issues on a global scale through the concept of sustainable development.

### ***Global cooperation***

All nations and social groups carry and support sustainable development. It aims at cooperation and participation of all stakeholders in the implementation of environmental, economic and social development. Local action is considered to be a prerequisite for the solution of global environmental problems because of the global impact of local and regional decisions taken on the environment. The concept of sustainable development, therefore, is aimed at the broad participation of citizens, local associations, institutions and organizations, the government and churches as well as the businesses and companies in solving concrete local problems.

Overall, the concept of sustainable development has a high complexity and versatile interpretability. The networking of social, environmental and economic goals, and the expansion of the perspective by taking into account the global and temporal dimension of human activities characterize the concept of sustainable development. It does not provide simple instructions for action. The concept outlines rather an open-ended search and optimization process, which is led by different (environmental, social and economic) principles. It describes this objective as the introduction to a global problem solving, experimentation and dialogue society. In the long term a learning society will also be created in which people make themselves discursively - controversial understood the basic goals and values. Solutions should be sought to open questions and problems and tried out alternative and optimized solutions.

### **Role of environmental education for sustainable development**

Children, youth and adults are to be prepared by the education for sustainable, environmentally friendly development in this social design process. The required reorientation of education

towards sustainable development in Agenda 21 therefore also aims on the development of skills for the realization of sustainable development and not only on the integration of environmental and development issues as a cross-cutting issue in all levels of education.

### *Didactic Principles*

A modern education for sustainable development enables the integration of knowledge imparting, value appropriation and personality development. It is also aimed at the development of learning skills. It is determined by factual, methodological, social and personal skills. The skills are acquired through the active exploration of technical and multidisciplinary content of teaching.

DeHaan (1998) explains the key elements of the competency model as follows: "Under methodological competence is to understand the ability, to be able to work up and apply expertise purposefully. It enables the systematic handling of problems, the creative new combination of information and solutions, the identification of interdependencies between problem factors as between solution ways, to contextual and critical questioning of frameworks for problem- and solution generating and to reflect on the dangers and risks of problem solving." (Haan, 1998, Schlüsselkompetenzen).

The term social competence includes the ability to search with others for solutions to problems and to be able to cooperate constructively and critically. Among them is also understood to be able to empathize with others, to show solidarity with them and to be committed to it. The social competence is also the emphatic idea of participation and shared commitment. Under self-competence is to understand the ability, "to organize themselves, develop and design and provide new visions and a life worth living. Finally, the personal competence still includes the ability for self-reflection". (Haan, 1998, *ibid.*)

In order to promote the targeted expertise for sustainable development, education and learning processes it should be aligned with the following didactic principles:

#### • Situation orientation

The concept of sustainable development concerns and calls each one in different areas of life. Situation orientation of learning, therefore, means to take the experience of life environments into consideration. In their own life situation dismay may be experienced, conflicts of interest can be analyzed, environment protection and sustainable planning be tested and the impact of their own

actions be experienced.

#### • Action orientation

Expert knowledge about the environment and environmental problems is not enough to acquire willingness and competence to act in terms of sustainable development. Action orientation of learning, therefore, aims at promoting practical and problem-solving related skills and abilities. Action-oriented learning processes should be linked to concrete results of the real acting, to make the commitment to the environment visible. They represent a way to change one's life and environment.

Action orientation of the learning processes not only includes the acting engagement with the environment but also the participating decision on the actions. Increasing participation in setting the targets for action and actively shaping the learning processes requires skills that are not much acquired in the accustomed teaching. This is about learning competence as the ability to plan and organize learn and work processes with regard to agreed objectives and tasks, to find, record and edit information independently and in an topic adequate search. This includes the ability to prepare work results and to present and evaluate them.

#### • Problem-solving orientation

Problem-solving orientation of learning aims at the understanding of systemic relationships and their dynamics and of the wide variety of networks and interactions. In addition, it focuses on the realization that often all the important characteristics of a complex system cannot be observed and recorded; that the individual features are more or less highly interrelated and cannot be changed isolated from one another; that effects of changes in complex systems are not always predictable and can lead to unwanted side effects.

Problem-solving orientation of learning should be a central principle of education for sustainable development in order to promote the ability to deal with complex systems. Dealing with biogeochemical cycles and other cyclic processes could be the focal point of problem-solving oriented learning.

#### • Interdisciplinarity

Interdisciplinary learning is aimed at the multidisciplinary treatment of complex issues and the

understanding of their complexity. Interdisciplinary learning, therefore, can be seen as an opportunity, to overcome the one-dimensionality, i.e. the narrowness and one-sidedness of specialized thinking and perspectives in assessing complex situations and problems and to promote a more holistic view.

#### • Cooperation orientation

Cooperation-based learning is aimed at the cooperation of workers among themselves but also on the cooperation with external cooperation partners such as environmental agencies, nature and environmental protection organizations etc. Cooperation orientation promotes, on the one hand the development of team skills, ie the willingness and ability to share task-related cooperation, and secondly, the ability to learn in networks, ie the ability of including different places of learning, information and experience sources and of establishing a network of informal contacts and to use it. It also opens the chance to learn solidarity and togetherness, which is difficult to endure without long term commitment. (Haan, 1998)

In cooperation with different cooperation partners reflexive and communication skills are acquired such as dialogue-, conflict solving skills and cooperation-oriented learning.

#### *Content-thematic priorities*

The Agenda 21 includes a long list of relevant issues or problem areas, eg poverty eradication, consumption habits, protection of the atmosphere, sustainable agriculture, protection of water resources etc. The local and regional implementation of Agenda 21, or of some parts is a primary object, at which educational institutions should also take part.

From the study "Sustainable Germany" (Hoering, 2009, Compass) can be derived objective (at least for central Europe) priorities, i.e. areas that need to be reformed and changed with priority in terms of sustainable development. Accordingly, the following subjects should be weighted more:

- Energy - in particular the forms of energy production and energy consumption
- Mobility/traffic - in particular the mobility behavior in the leisure sector and the transport of goods;
- Housing and Settlement Development - particular types of housing and construction materials;
- Agriculture and food - in particular industrial processing of food, meat production and

food consumption;

- Interweaving of local and global development - in particular between the local working and living environment and the global markets and the life situations, especially in the Third World.

In addition to these five issues three strategies can properly be seen which are necessary to understand the basic concept of sustainability. This includes the following points:

- Permanence strategies - the strategies and frameworks of permanently-sustainable living and economic activity;
- Efficiency strategies - the strategies of improving efficiency in the use of resources, in economic activity and in the distribution;
- Sufficiency strategies - the reflection on the present-day lifestyles and the guiding principles of sustainable lifestyles.

These strategies represent a kind of analysis and evaluation scheme, with which the five themes can be considered. In terms of sustainability, it is therefore useful not only to look at currently dominant forms of energy, but to scrutinize them rather also regarding permanence, sufficiency and efficiency.

Finally, it should be noted that education for sustainable development not only aims at a content and didactic reorientation of learning processes but also to the greening of educational institutions: energy savings, greening, waste separation and reduction, reducing and avoiding polluting materials etc., but also the participation, i.e. the participation of groups in decision-making and development processes in the education institutions.

## **Current environmental status and sustainable development in partner countries**

### ***Basic data***

In compliance with the principles of sustainable development as an economic, ecological and social development, which ensures the natural livelihood of present and future generations all partner countries report unified economic, legislative, educational and social efforts to combat the harmful actions on the environment due to variety of reasons.

- *In Bulgaria:* the main issues are concentrated on air pollution from industrial emissions, energy sector, water quality, waste management with focus on proper industrial waste disposal,

nature conservation to preserve depleted natural forest cover and soil quality.

- *In Cyprus:* remarkable climate change that reflects on its turn the water supply (chronic shortage of water and extensive droughts) and the biodiversity, quality of air and air pollution, fast rising waste generation rate.
- *In Germany:* climate and environmental protection, resource and energy efficiency are considered as the main contributors to the economic development, to value added and to technological development. Special emphasis is given to RES and reduction of greenhouse gas emissions, growing traffic volumes and their consequences for the environment.
- *In Turkey:* the country has important environmental problems. It is ranked 92<sup>nd</sup> according to the Human Development index value. A major problem related to environmental issues and precisely education for sustainable development in Turkey is the lack of proper educational resources.

### ***Environmental policies***

- *In Bulgaria:* The established constitutional and statutory principles on environmental protection form the basis of environmental policy in Bulgaria. The principles upon which environmental protection is based are stipulated in Environment Protection Act from 2002 (last amended in 2014). These principles are implemented by the competent bodies of the executive power.
- *In Cyprus:* Environment protection is an important component of Cyprus economic and social policies. After EU entry the country environmental policy and legislation is harmonized with EU requirements covering a wide range of issues relating to the environment, including water, soil and air pollution, nature protection, waste management and noise regulation.
- *In Germany:* Modern environmental policy in Germany is controlled through a mix of instruments or strategic, verifiable targets that are tracked with the use of flexible instruments ranging from laws and regulations to contemporary approaches for climate protection and development of renewable energies.
- *In Turkey:* Turkey's environmental policy can be listed under three main headings, namely International Environmental Issues, Relations with the European Union in Environmental Issues and International and Regional Conventions. However, legislation or direct controls tools are used more than the direct use of economic tools.

### ***The obstacles and constraints in environment protection***

- *In Bulgaria:* There are bottleneck steps and potential risks at the level of both regulation and implementation of the Environment Protection Act. Potential problems: a multidirectional and long-lasting process of evaluation from environmental point of view of the major infrastructure projects; necessity for environmental impact evaluation of large development, such as energy and chemical industry; difficulties in the implementation of effective environmental management plans due to plausible duplication of activities related to permissions, monitoring, controlling and sanctions by different institutions.
- *In Cyprus:* The country is still developing a comprehensive and coherent environmental policy, which entirely to meet EU obligations: ministerial responsibilities must be integrated, more information efforts must be invested and administrative coordination must be improved. The major constraints that face Cyprus in the realization of the environment protection are focused on climate change, water deficiency, forest protection, and biodiversity policy.
- *In Germany:* The clean air and water protection are the most important success fields in Germany. On the other side are environmental problems associated with the land use, species loss, soil or groundwater contamination.
- *In Turkey:* Factors such as rapid population growth, irregular urbanization, industrialization and tourism cause environmental problems and failure to protect the natural resources in a healthy way. The main problems are related to legislation, lack of central/local organization, problems encountered in public participation in environmental management, in the regulations on environmental education, environmental costs, error analysis of the implementations specified in environmental planning.

### ***Green production policies***

- *In Bulgaria:* Bulgarian state policy on green production in the context of environmental protection comprises bidirectional actions: integration into respective sector policies - transport, industry, agriculture, tourism, construction, etc. and integration into the policies for economic and social development at regional level.
- *In Cyprus:* The main policy priorities pursued by Cyprus in making greener products and greening the production processes include: establishment and expansion of the environmental

infrastructure for sustainable management of resources and waste; protection, preservation and management of coastal areas; promotion of energy saving and renewable energy sources; reduction of greenhouse gas emissions and internalization of environmental costs.

- *In Germany:* The Nature Conservation is stated as a national objective in Article 20a of the German Constitution since 1994. Therefore the efforts are concentrated on greener production and greening processes associated with protection of water bodies and marine environments, control of air and noise pollution, nature and soil conservation, application of environmental management systems

- *In Turkey:* Turkey's weaknesses in Environmental and Sustainable Development area connected with green production are linked with the lack of organized, adequate, and reliable data regarding pollution prevention, control, and disposal as well as for the country natural resources and values. The legal infrastructure has not been harmonized with the international obligations. Environmental knowledge and the importance of environment have not been understood adequately in all sections of society including decision-makers.

### **Focus on environmental adult education: good practices in partner countries**

#### ***Brief historical overview of environmental education (EE)***

- *In Bulgaria:* Three main periods in EE advancement can be outlined: before 1972, characterized mainly by EE at school level; 1972 – 1992, comprises elaboration of new curricula and textbooks in science education and implementation of EE at University level; 1992 – at present: state educational standards, including EE standards were created, curricula were updated and restructured, educational technologies for trainee-centered interactive learning were incorporated. EE research has started there too. Nowadays, the education for sustainable development is a government policy implemented through the integrated activities of the Ministry of Education and Science, the Ministry of Environment and Water, the Ministry of Labour and Social Policy.

- *In Cyprus:* The first steps towards **sustainable development education** with special attention payed to EE were made in the 1990s. The approaches for integrating the environmental education into the strategic goals of the country have been quite recently adopted. Cyprus prepared a **National Strategic Plan for the “Environmental Education with Focus on**

**Sustainable Development”** in 2007. To implement this strategy in real practice 7 Centres for Environmental Education were established. Thus the potential advantages of the involvement of local NGOs for sustainable development in researching and developing practices and tools for EE were used.

- *In Germany:* The federal government approved in 1971 a programme that founded the first educational measures to protect the environment. Thus, EE is an educational approach incurred in the 1970's, which aims to convey a responsible use of the environment and natural resources. In the 1980s, there have been numerous concepts with very different orientations and objectives. Environmental education is now obsolete without the vision of sustainable development. This principle applies now under almost all participants of the former EE, in all fields of education, science and politics.

- *In Turkey:* EE was officially implemented in Turkey during academic 1992-93 after the approval of environment, health, traffic and reading courses programme by the Board of Education and Discipline. However, EE as a special environmental issue has begun to be discussed only in recent years. At present EE consists of the following sections: EE in formal education (from preschool to higher education) and EE in non-formal education.

*Formal/non-formal environmental education:*

*Bulgaria*

<i>Legal basis</i>	<i>Responsible organizations</i>	<i>Training settings &amp; systems</i>	<i>Tendencies and problems</i>
<ul style="list-style-type: none"> <li>· The Constitution of the Republic of Bulgaria (1991)</li> <li>· Law of National Education;</li> <li>· other Laws, Acts and Government Ordinances (1997 – at present)</li> </ul>	<ul style="list-style-type: none"> <li>· National Assembly</li> <li>· Council of Ministers</li> <li>· Ministry of Labour and Social Policy</li> <li>· Ministry of Education and Science</li> <li>· National Evaluation and Accreditation Agency (NEAA),</li> <li>· National Employment Agency (EA)</li> <li>· National Agency for Vocational Education and Training (NAVET)</li> </ul>	<ul style="list-style-type: none"> <li>· <b>Initial VET (IVET)</b> for persons over 16 in VET centers, vocational colleges, schools, gymnasiums, art and sport schools.</li> <li>· <b>Continuing VET (CVET)</b> for persons over 16 (employed or unemployed), no longer in the formal education system, organized in vocational gymnasiums, art and sport schools, VET centers and vocational colleges.</li> <li>· <b>Formal education level EE</b> is organized in compliance with the Higher Education Law and the state requirements for accreditation of the speciality ‘Ecology and Environmental Protection’ through BSc &amp; MSc programmes. EE is also offered in Universities’ open-education/CVET centres.</li> <li>· <b>The non government sector</b> offer distance courses for EE.</li> </ul>	<ul style="list-style-type: none"> <li>· Establishment of the national system for adult education in cooperation with social partners</li> <li>· The motto ‘<i>The education is for every person</i>’</li> <li>· Development of adult training as an element of LLL and promotion of effective functioning of adult vocational training system.</li> </ul>

Cyprus

<i>Legal basis</i>	<i>Responsible organizations</i>	<i>Training settings &amp; systems</i>	<i>Tendencies and problems</i>
<ul style="list-style-type: none"> <li>· Legislative authority is exercised by the House of Representatives.</li> <li>· All activities are legitimized by decisions of the Council of Ministers and/or Acts passed by the House of Representatives.</li> <li>· No comprehensive legislative framework for Adult and Continuing Education</li> </ul>	<ul style="list-style-type: none"> <li>· Planning Bureau (PB)</li> <li>· Ministry of Education and Culture (MoEC)</li> <li>· Ministry of Labour and Social Insurance (MLSI)</li> <li>· Human Resource Development Authority (HRDA)</li> </ul>	<ul style="list-style-type: none"> <li>· <b>Institutions offering formal adult education:</b> Evening Gymnasia and Evening Technical Schools; Post-Secondary VET Institutes; the Open University of Cyprus; Mediterranean Institute of Management; Higher Education Institutions.</li> <li>- <b>Institutions offering non-formal adult education:</b> Adult Education Centres; State Institutes of Further Education; Pedagogical Institute; Private Institutes registered with the Ministry of Education.</li> <li>- <b>Institutions offering (continuing) VET:</b> Adult Education Centres; State Institutes of Further Education; Pedagogical Institute; registered Private Institutes.</li> <li>- Civil society institutions/NGOs and ministries, social partners provide wide range of formal or non-formal adult education activities, both job- and non-job related.</li> </ul>	<ul style="list-style-type: none"> <li>- Promoting continuing training and strengthening the employability;</li> <li>- Modernizing teaching methods and curricula;</li> <li>- Expanding the opportunities offered to young people;</li> <li>- Improving teachers' skills;</li> <li>- Conducting feasibility studies for the operation of public vocational lifelong learning schools;</li> <li>- Encouraging the private sector to get involved in VET development;</li> <li>- Encouraging cooperation between relevant stakeholders for LLL.</li> </ul>

Germany

<i>Legal basis</i>	<i>Responsible organizations</i>	<i>Training settings &amp; systems</i>	<i>Tendencies and problems</i>
<p><u>Formal environmental education:</u> since 1996, over 130 training regulations have been passed or amended to take account of environmental training requirements.</p> <p><u>Informal environmental education:</u> There is no regulation available at federal level. CET and adult education laws exist in almost all states.</p>	<p>Today there are more than 100 associations pooled under the umbrella organization of 'German Nature Protection Association' (Deutscher Naturschutzring)</p>	<p><u>Formal environmental education:</u> Universities, colleges, and research institutes; today more than 500 environmental courses at specialized institutions of higher education and universities exist.</p> <p><u>Informal environmental education</u></p> <ul style="list-style-type: none"> <li>· About 70 % of adult learning processes are performed outside educational institutions;</li> <li>· There are about 4,600 nationwide environmental education institutions: environmental schools, environmental and ecological stations; National park-, Biosphere reservation-, nature park-, environment-, nature conservation- and biology education centers; country houses used by school classes for short visits and forest youth homes; forest schools and kindergartens; school farms and field laboratories; environmental academies.</li> </ul>	<ul style="list-style-type: none"> <li>· Didactic teaching problems at university level</li> <li>· Conceptual problems,</li> <li>· Administrative problems.</li> </ul> <p>Since 1994 a federally supported research project on teacher training was begun which shall cope with some of these problems.</p>

Turkey

<i>Legal basis</i>	<i>Responsible organizations</i>	<i>Training settings &amp; systems</i>	<i>Tendencies and problems</i>
<ul style="list-style-type: none"> <li>· The 56<sup>th</sup> article of the constitution brought the principle that “Everyone has a right to live in a healthy and balanced environment.”</li> <li>· Environmental Law (1983)</li> <li>· Turkey’s National Environmental Action Plan</li> <li>· Cooperation protocol between the Ministry of Education and the Ministry of Environment and Urbanization (2014)</li> </ul>	<ul style="list-style-type: none"> <li>· Ministry of Environment and Urbanization and Provincial Directorate for Environment and Urbanization,</li> <li>· Ministry of Forestry and Water Affairs and Provincial Directorates</li> </ul>	<ul style="list-style-type: none"> <li>· Adult education for industry is carried out by the Environmental Officer, Environmental Management Unit and Environmental Consulting Firms,</li> <li>· Training is provided in trainers’ education by experts authorized by the Ministry on subject like packaging waste management, water pollution management, sludge control, principles of waste water treatment, soil pollution management, solid waste management, international transportation of dangerous substances by land (ADR), etc.</li> </ul>	<ul style="list-style-type: none"> <li>· Factors that affect the environmental condition and sustainable development are lack of awareness and environmental pollution.</li> <li>· The priorities in nation-wide environmental adult education are solid wastes, waste water, and energy efficiency.</li> <li>· Societies do not consider the environment while carry out production and consumption activities.</li> <li>· Factors leading to environmental problems: population, urbanization, industrialization.</li> </ul>

### Development of innovative solutions for education of adult training providers: EQF/NQF introduction

Partner country	NQF Development, introduction, implementation	NQF structure	Referencing to EQF	ECVET vs. national grading systems
<i>Bulgaria</i>	<ul style="list-style-type: none"> <li>· Bulgarian national qualifications framework for lifelong learning (BQF) was officially launched with Decision No 96 of 02/02/2012 of the Council of Ministers</li> <li>· BQF's implementation is coordinated by Bulgarian Ministry of Education and Science with an NCP appointed at the international and European cooperation directorate in this ministry</li> </ul>	<ul style="list-style-type: none"> <li>· The BQF comprises 8 levels with an additional preparatory level (the so called NQF level 'zero', encompassing pre-school education.</li> <li>· For description of BQF levels the EQF and QF-EHEA descriptors have been taken into consideration:               <ul style="list-style-type: none"> <li>· knowledge, both theoretical and factual;</li> <li>· skills, both cognitive and practical;</li> <li>· wider competences.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>· BQF was referenced to the EQF and self-certified against the QF-EHEA in 2013.</li> <li>· In BQF VET covers levels 2 to 5. It starts at level 2, along with the basic education certificate. Levels 3 and 4 include the 'second and third level of a VET qualification, along with general education. Level 5 comprises VET only, the 'fourth VET level' (most advanced). The adult education encompasses levels 3 and higher.</li> </ul>	<ul style="list-style-type: none"> <li>· In 2011 a new revised model of a VET-standard based on ECVET principles was set out through revision of existing VET-standards from different vocational areas.</li> <li>· The new model is applied for 20 pilot professions and is a basis for new modular training curricula and programmes for all qualifications in the IVET and CVET systems.</li> </ul>

Partner country	NQF Development, introduction, implementation	NQF structure	Referencing to EQF	ECVET vs. national grading systems
<i>Cyprus</i>	<ul style="list-style-type: none"> <li>· Decision of the Council of Ministers from 2008 to create NQF.</li> <li>· The first referencing report – 06/2014; the final version of the Report – 02/2015.</li> <li>· A System of Vocational Qualifications (SVQ) as an integral but separate part of the NQF was developed; it is the first step towards NQF implementation.</li> <li>· The NQF is not yet operational; it is established as an in-service department of the Ministry of Education and Culture. The testing period of the NQF implementation is between 09/2015 05/2016.</li> </ul>	<ul style="list-style-type: none"> <li>· The EQF 8-level reference structure has been adopted, reflecting the national qualification system's main characteristics.</li> <li>· Level descriptors are described in terms of knowledge, skills and competence, formulated simultaneously for all levels to define clear progression from one level to the next.</li> <li>· VET qualifications are aligned from level 3 to 7 of the NQF.</li> </ul>	<p><b>Standards of VET Qualifications</b></p> <ul style="list-style-type: none"> <li>· During 2006-09, 5 standards of VET qualifications at level 2.</li> <li>· During 2007–15, 80 new standards are expected to be developed (67 already available).</li> </ul> <p><b>Assessment &amp; Certification of VET Qualifications</b></p> <p>3 stages: diagnosis of knowledge and competences, assessment, certification.</p>	<ul style="list-style-type: none"> <li>· The process of development and implementation of ECVET in Cyprus, as a unit-based credit system, started in September, 2011 when working committee on the subject was set up.</li> <li>· In 2013, almost all interested organisations both private and public have been contacted to promote the Europass documents and make them accessible to all citizens.</li> </ul>

Partner country	NQF Development, introduction, implementation	NQF structure	Referencing to EQF	ECVET vs. national grading systems
<i>Germany</i>	<ul style="list-style-type: none"> <li>· A final agreement on a comprehensive national qualifications framework for lifelong learning based on learning outcomes (Deutscher Qualifikationsrahmen, DQR = German NQF) was adopted in March 2011</li> <li>· The DQR was introduced on 1 May-2013</li> <li>· For the moment, qualifications from general education (for example the school leaving certificate, Abitur) are not included in the framework.</li> </ul>	<ul style="list-style-type: none"> <li>· DQR defines eight levels that can be assigned to the eight levels of the EQF. DQR takes into account the peculiarities of the German education system and contributes to the reasonable evaluation and comparability for German qualifications in Europe.</li> <li>· DQR assigns formal qualifications of general education, vocational training, and higher education.</li> </ul>	<ul style="list-style-type: none"> <li>· It is envisaged to disclose the true EQF / DQR mapping on all new qualification certificates in future. As first in the individual education sectors, the necessary administrative conditions have to be created; this will be done gradually starting in 2014.</li> <li>· The DQR has preliminary character, no regulating function.</li> <li>· The attainment of a certain DQR level does not automatically give access to each "next level".</li> </ul>	<ul style="list-style-type: none"> <li>· There is still no credit system in VET that would facilitate the recognition of non - formal and informal learning</li> <li>· Laying down standards and procedures for credits allocations and their description in the “DQR Manual”.</li> <li>· Completing allocations in the formal area.</li> <li>· Developing proposals and procedures for the inclusion of the results of non - formal and informal learning.</li> </ul>

Partner country	NQF Development, introduction, implementation	NQF structure	Referencing to EQF	ECVET vs. national grading systems
<i>Turkey</i>	<ul style="list-style-type: none"> <li>· Vocational Qualifications Authority appointed the NQF Preparatory Commission for establishment of Qualifications Framework in Turkey (QFT) designed in line with the EQF (08/10).</li> <li>· National Vocational Qualification System was developed and implemented;</li> <li>· The technical and VET standards &amp; qualifications were specified</li> <li>· Accreditation, control, authorization, evaluation and certification of qualifications following these standards them.</li> </ul>	<ul style="list-style-type: none"> <li>· QFT includes all the qualification principles gained through general, vocational and academic education and training programmes, and other learning ways besides primary, secondary and higher education.</li> <li>· QFT has a structure composed of levels and level descriptors.</li> <li>· QFT encompasses as well the national qualifications, according to VET, competencies, testing and certification regulations.</li> </ul>	<ul style="list-style-type: none"> <li>· QFT is compatible with EQF, coordinated by a National Coordination Centre, the Vocational Qualifications Authority.</li> <li>· The 8 levels in the QFT are defined through level descriptors and supported by qualification types. The qualification types are defined by the qualification type determinants.</li> <li>· Since May, 2015 Vocational Qualifications Authority have been published a total of 274 National Qualifications in 12 sectors.</li> </ul>	<ul style="list-style-type: none"> <li>· ECTS system is matched with the national grading system in Turkey.</li> </ul>

## Specific national strategies and programmes for clean environment/sustainable development

All partner countries have presented their major national/regional strategies and corresponding plans and programmes for their realization associated with countries sustainable development policies: prevention and reduction of pollution and risk to human health, public awareness, conservation, restoration and improvement of environmental quality, integration of environmental protection approaches into sectoral/regional economic and social development.

### Selection of key qualifications for adult learning providers in the field of clean environment

On the basis of the national surveys performed the following professional areas / specific competences for professionals in adult learning provision were selected:

Professional areas specific competences/green abilities			
Teachers/trainers in adult education	Adult learning providers	Career officers, Counselors, Inspectors; Head teachers / Principals	Education managers; Other management staff in adult training institutions; Non-teaching administrative staff
Professional areas			
<ul style="list-style-type: none"> <li>○ Biology</li> <li>○ Chemistry</li> <li>○ Ecology</li> <li>○ Environmental engineering</li> <li>○ Civil engineering</li> </ul>	<ul style="list-style-type: none"> <li>○ Science education</li> </ul>	<ul style="list-style-type: none"> <li>○ Environmental ethics</li> <li>○ Public health</li> <li>○ Legislation</li> </ul>	<ul style="list-style-type: none"> <li>○ Management</li> <li>○ Public relations</li> <li>○ Economics</li> </ul>

## National support evaluation in terms of innovation, success and sustainability of adult education

Country	Innovation, success and sustainability of adult education – national support
<i>Bulgaria</i>	<ul style="list-style-type: none"> <li>· Main goal of the National Development Programme Bulgaria 2020 – provision of high level of skills, opportunities for innovations, adaptability to the changes in the character of work, and full social inclusion.</li> <li>· National Strategy for LLL (2014 – 2020) establishes a strategic LLL framework on the basis of cooperative partnership among the business and various degrees and sectors of education, training, and research.</li> <li>· Equality of formal education and training, non-formal training, and informal learning through introduction of a learning outcomes-based validation system.</li> </ul>
<i>Cyprus</i>	<p>Improvement and development on Adult Education through:</p> <ul style="list-style-type: none"> <li>· Establishment of a central authority for adult education to improve the administrative/organisational structures of the system;</li> <li>· Legislation for adult education and awareness of lifelong education;</li> <li>· Continuing professional development for staff and volunteers responsible for the adult education centres' development;</li> <li>· Formal recognition of adult education as an inseparable part of the educational system.</li> </ul>
<i>Germany</i>	<p>To ensure that the States and individual learners can fully utilize the DQF advantages, three main themes must be kept in focus:</p> <ul style="list-style-type: none"> <li>· Visibility: ensuring that DQR and EQF levels appear in all new certificates, diplomas and Europass documents or Qualification databases;</li> <li>· Linkage with other policies: e.g. with respect to validation, consulting, curriculum reform and regulations for credit transfer;</li> <li>· Linkage with the labor market: the opening of DQR for external qualifications, including those from the private sector, will promote the dialogue between education and labor market.</li> </ul>

Country	Innovation, success and sustainability of adult education – national support
<i>Turkey</i>	Ministries in Turkey and universities will continue to provide national support and trainings in terms of development, success and sustainability of adult education. They are supported by institutions like The Scientific and Technological Research Council of Turkey (TUBITAK), Southern Aegean Development Agency (GEKA), and Agriculture and Rural Development Support Institution (ARDSI) that provide financial support for innovative and sustainable selected projects.