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## A European Project for the Education for Sustainable Development in Higher Education

**Abstract.** University Educators for Sustainable Development (UE4SD) is a 3-year project (2013-2016) with 53 partners from 33 countries across Europe supporting teaching and learning for sustainability in higher education, and providing support and resources for professional development of educators. The main results include identifying the best practice examples of professional development in education for sustainable development (ESD) for European university educators, developing an online platform resource, and an academy of ESD. A mapping of opportunities for university teachers' competence development in education for sustainable development has been carried out. Based on four regional reports (Northern, Southern, Eastern, and Western Europe) this state of the art report was compiled. The best practices of the mapping are published in the Leading Practice Publication including insights into the status of ESD and strategies. An online platform of resources will be further developed for support of university educators' competences. One of the main outputs will be developing an Academy for ESD in higher education in Europe. The project is funded by the European Commission, and Life Long Learning Programme (LPP) – academic networks.

**Keywords:** sustainable development, higher education, university educators, competence development, ESD

### 1. Introduction

University Educators for Sustainable Development (UE4SD) is a three year project (2013-2016) supporting the development of education for sustainable development (ESD) capabilities of university educators in Europe. All educators in higher education are included in the project, in line with the following defini-

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tion: “University educator is person who has teaching responsibilities in a higher education institution, which covers universities, universities of applied science and institutes or colleges of higher education” [UE4SD 2014c]. At universities, these persons have usually the role of both researchers and teachers. Important to emphasize is that the project concerns university educators from all disciplines. The project involves 53 partners in higher education from 33 countries across Europe taking into account the geographical balance. The main deliverables of this project are mapping of existing opportunities for teacher’s competence development in education for sustainable development in partner countries and identifying leading practice. Development of an online resource enhancing learning and education in ESD is part of the project. Further, the project will contribute to the establishment of an Academy of ESD in higher education in Europe. The project is funded by European Commission, Life Long Learning Programme (LPP) – academic networks. The lead partner of the project is University of Gloucestershire, UK (North hub), three core partners are the Autonomous University of Madrid, Spain (South hub), Charles University in Prague, Czech Republic (East hub) and



Figure 1. Map showing the UE4SD partner institutions grouped into four regional hubs: North – white, South – black, East – dark grey, West – striped dove grey. Stars mark the four coordinating institutions

Source: modified UE4SD 2015b, web version.

Leuphana University of Lüneburg, Germany (West hub). The project is closely associated with the Copernicus Alliance – the European Network of Higher Education for Sustainable Development [UE4SD 2014a, 2014b].

## **2. International and regional background**

The project started in an especial time period: in the end of United Nations (UN) Decade of ESD (DESD 2005-2014) and in the beginning of the UN Global Action Programme (GAP) on ESD (2015-2030) driven by UNESCO. In parallel the 8 UN Millennium Development Goals (MDGs 2000-2014) which focused mainly on developing countries are followed by the 17 Sustainable Development Goals (SDGs) which seek to complete what MDGs did not achieve. These global SDGs are addressed to all countries in the world, developing and developed, to be obtained by 2030 [UE4SD 2015b; UNESCO 2014a, 2014b; United Nations 2015]. Besides, the Rio 20 Treaty on Higher Education underlines transformation and a paradigm shift in education to achieve sustainable development goals [Copernicus Alliance 2012].

Among the regional documents can be mentioned the United Nations Economic Commission for Europe (UNECE) Strategy on Education for Sustainable Development adopted in Vilnius in 2005 [UNECE 2005] and the report on Competences in Education for Sustainable Development by UNECE [UNECE 2011].

## **3. ESD competences for educators**

The UNECE expert group [UNECE 2011] presented three key competences for educators specifically regarding ESD: a holistic approach, envisioning change and achieving transformation. A holistic approach includes interrelated components: integrative thinking, inclusivity and dealing with complexities. Envisioning change comprises competences related to learning from the past, inspiring engagement in the present and exploring alternative futures. Achieving transformation includes competences at different levels: transformation of what it means to be an educator (personal level), transformation of pedagogy (pedagogy level) and transformation of the education system as whole (education systems level). The three key ESD competences were combined with four pillars of learning by Jacques Delors [1996]: learning to know, learning to do, learning to live together and learning to be. These combinations give forty specific ESD competences described by the UNECE expert group. As examples of these specific ESD com-

petences described are “the basics of system thinking; ways in which natural, social and economic systems function and how they may be interrelated,” “the independent nature of relationships within the present generation and between generations, as well as those between humans and nature” (holistic approach; learning to know;) and “the importance of problem setting, critical reflection, visioning and creative thinking in planning for future and effecting change” (envisioning change; learning to know). ESD is also related to competences to 1) learning to ask critical questions; 2) learning to clarify one’s own values, 3) learning to envision more positive and sustainable futures, 4) learning to think systemically, 5) learning to respond through applied learning, 6) learning to explore the dialectic between tradition and innovation [Tilbury 2011]. Future thinking, critical and creative thinking, participation and participatory learning, partnerships and systemic thinking were key ESD principles identified by Daniella Tilbury and Ingrid Mulá [2009].

#### **4. Mapping of opportunities for teachers’ competence development in ESD**

During the first year of the project a mapping of the existing professional development opportunities in higher education was carried out in partner countries. The national mappings from the four regional hubs North, South, East and West were developed to four regional reports by regional hub coordinators. The UNECE Competence Framework for Educators in ESD with forty described competences [UNECE 2011] formed a basis for the mapping of educator’s competences [UE4SD 2015b]. Information of the status of ESD at national level such as policies and initiatives was also asked for in the mapping. From the four regional reports, the state of art report was compiled based on 53 partner universities from 33 countries [UE4SD 2014c].

#### **5. Key findings from the mapping across the partner countries and Leading Practice Publication**

Half of the countries reported existence of national strategies or action plans on sustainable development or ESD. Only three countries reported that ESD is a part of quality assurance and accreditation processes of higher education [UE4SD 2014c]. In this mapping in total nearly 70 professional development

opportunities in ESD for university educators were identified. Of them 27 were categorised as good practice examples with clear focus and approach to developing ESD competences. These good practice examples are described shortly in the State of the art report [UE4SD 2014c]. They include different types of professional development opportunities as short courses, seminars, mentoring/coaching programmes, academic working groups, work shadowing, teaching support initiatives, staff introduction and in-house certification for new teaching staff. Most of these were continuing activities. Integration of ESD in higher education and exchange and networking opportunities were especially mentioned as special values of the professional development opportunities.

Analysis of the regional reports show that it is not possible to draw valid conclusions for all participating countries about the ESD professional developments opportunities, but some trends can be observed. Only a few countries have programmes in ESD for university educators and the same situation is observed regarding the comprehensive and mandatory programmes for university teachers to acquire teaching competence. Attending professional development opportunities in ESD is therefore mostly depending of the individual university educator's personal interest [UE4SD 2014c].

The best practices from the results of the mapping were published in the Leading Practice Publication launched in November 2015. It presents different types of case studies (networks, national programs, initiatives) across Europe showing 13 cases from 10 partner countries, from small-scale institutional initiatives to large-scale international projects. The UE4SD project has identified three key target groups: educators primarily in higher education, university leadership and policymakers [UE4SD 2015b]. Below describes one example of international networks and one example of the national initiatives.

One of the best practice examples of international networks is MedUnNET, the Network of the Mediterranean Universities for Sustainable Development focusing on Education for Sustainable Development, launched in 2008 in Athens. The coordinator of the network is the National and Kapodistrian University of Athens, with the UNESCO Chair on Sustainable Development Management and Education in the Mediterranean. Twenty member universities from 15 Mediterranean countries build the core of the MedUnNET. The network is open for interested HEIs, without fee by now. The aim of the network is developing the ESD competences of university staff, promoting a "whole institution approach" in HEIs, providing a forum for consultation on ESD among universities and key-stakeholders and synergising the individual activities for the benefit of ESD. Furthermore, the goal is to develop a joint Mediterranean Master course in ESD. The network focuses on the key ESD competences according to UNECE [2011]. MedUnNET has organised ESD training events where approximately 500 university staff from Mediterranean countries has been trained. Trainings consist of

a shorter theoretical part and a longer experiential part with workshops, group work, working in pairs. MedUnNET is in close connection to other networks and partners such as MEDIES (Mediterranean Education Initiative for Environment and Sustainability Network) with about 4000 educators of all levels of formal, non-formal and informal education, MIO-ECSDE (the Mediterranean Information Office for Environment, Culture and Sustainable Development), COMJESD (Circle of Mediterranean Journalists for Sustainable Development) and others. MedUnNET has also supported the drafting of the Mediterranean Strategy for ESD [Scoullou & Malotidi 2015].

One best practice example representing the national level is “Green academy” – a programme for organisational ESD change at UK universities launched 2011. It is an initiative of the UK agency for teaching and learning development in higher education, Higher Education Academy (HEA). It follows a model from “Change academy” which has been practiced since 2004 with focus on professional development and team development supporting an institutional change in ESD: “Green academy” has supported 18 institutional ESD change projects starting 2011 (8 projects) and 2013 (10 projects). Institutions are invited to propose projects plans to form staff teams consisting 5-6 people for implementing proposals. The teams have to include one senior manager, one student, one member of academic and one from operational staff. HEA provides a one-year supporting facilitation process with mentors for the team, and some financial support. The one-year process starts with a meeting with mentors and the team leaders from different universities. Each team will have a facilitating mentor. The second step is 2-days residential event for teams and mentors to support developing of plans. The process of implementing is supported by the mentor during the year. In the end is a team leader meeting. Teams shall write a report and arrange a workshop to share their experiences. This process supports learning of strategy development skills and learning from other universities practices, for individuals, teams and institutions. Among assessed impacts reported is a change on the strategic level for institutions in embedding ESD and raising awareness. The process stimulated various staff development activities such as workshops, seminars, auditing of ESD in the curriculum, development of workbooks and toolkits [Ryan & Tilbury 2015].

## 6. Online platform of resources

One of the main outputs of the project is the online platform of ESD professional development resources. The platform will be developed during the project to support university educators in all disciplines by sharing experiences, tools and

best practices. Project news, information, activities and UE4SD publications are available on the project website <http://www.ue4sd.eu/>.

## **7. Developing an Academy for ESD in higher education**

The final stage of the project will concentrate on the development of an Academy for ESD in higher education in Europe to support university educators to develop their ESD competencies. The aim is to plan a professional development programme to enhance ESD capabilities. Piloting of this initiative is included in the project under the lead of Autonomous University of Madrid. Four universities in Spain participate in this piloting with different piloting projects: Autonomous University of Barcelona, University of Girona, University of Basque Country and University of Granada. The experiences of the piloting will result in a report [UE4SD 2015b].

## **8. Conclusion**

Sustainable development is a great challenge at many levels: global, regional, national and local. Higher education is in key position equipping the future generation of professionals to meet the challenges. UNECE [2011] developed a framework for educators' competences in ESD with the essential characters of ESD: a holistic approach, envisioning change and achieving transformation. In higher education especially the holistic perspective and inter- or transdisciplinary approach should be emphasized [UE4SD 2015b]. Reorientation of curriculum and pedagogy is needed for transformation of the higher education sector (Copernicus Alliance). University networks and partnership support many aspects of ESD. As examples of large networks in higher education supporting ESD in Europe are the Baltic University Programme, BUP [Lindroos 2015] and the Network of Mediterranean Universities for Sustainable Development, MedUnNET [Scoullou & Malotidi 2015]. In the coming years, it is expected that networks and networking of networks, cooperation and partnerships in higher education will support and give more opportunities for university educators' professional development in ESD.

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## Europejski projekt edukacyjny dla szkolnictwa wyższego na rzecz zrównoważonego rozwoju

**Streszczenie.** University Educators for Sustainable Development (UE4SD) to rozpisany na trzy lata (2013-2016) projekt, w którym uczestniczy 53 partnerów z 33 krajów całej Europy i którego celem jest wsparcie szkolnictwa wyższego w zakresie nauczania i uczenia się na rzecz zrównoważonego rozwoju oraz zapewnienie narzędzi i zasobów dla rozwoju zawodowego nauczycieli uniwersyteckich. Do najważniejszych rezultatów projektu należy: zidentyfikowanie przykładów dobrych praktyk w zakresie rozwoju zawodowego europejskich nauczycieli akademickich, stworzenie internetowej platformy edukacyjnej oraz powołanie do życia akademii edukacji na rzecz zrównoważonego rozwoju. W pierwszym etapie przeprowadzono mapowanie szans związanych z rozwojem kompetencji wykładowców akademickich w ramach edukacji na rzecz zrównoważonego rozwoju. Na podstawie czterech regionalnych raportów (dla Europy północnej, południowej, wschodniej i zachodniej) powstał raport zbiorczy, dający całościowy obraz sytuacji. Następnie opublikowano „Leading Practice Publication”, w którym zawarto nie tylko mapę dobrych praktyk, ale również pogłębioną analizę obecnej sytuacji i strategię dalszych działań w zakresie edukacji dla zrównoważonego rozwoju. Internetowa platforma będzie dalej rozwijana, stanowiąc wsparcie dla kształcenia kompetencji nauczycieli akademickich. Jednym z głównych efektów będzie utworzenie w strukturach europejskiego szkolnictwa wyższego Akademii Edukacji dla Zrównoważonego Rozwoju. Projekt jest finansowany przez Komisję Europejską w ramach programu „Uczenie się przez całe życie” (LPP).

**Słowa kluczowe:** zrównoważony rozwój, szkolnictwo wyższe, nauczyciele akademicy, rozwijanie kompetencji, edukacja dla zrównoważonego rozwoju