UE4SD

UNIVERSITY EDUCATORS

FOR SUSTAINABLE DEVELOPMENT

Mapping opportunities for developing Education for Sustainable Development (ESD) competences

REGION WEST

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1. UE4SD – University Educators for Sustainable Development: Region WEST

This report has been developed as part of a three-year project entitled "University Educators for Sustainable Development (UE4SD)", funded by the European Commission under the Lifelong Learning Programme – Erasmus Academic Networks. The project is working across Europe to locate and capture recent efforts to support the development of Education for Sustainable Development (ESD) capabilities of university educators. The aim is to draw on best practices, new initiatives and usable tools for professional development in ESD for university educators.

The project is working with 55 partners across 33 countries mainly in Europe. The partnership has been divided into four different regional hubs to ensure that regional scenarios and contexts are visible throughout the project. The North region is coordinated by the University of Gloucestershire (UK), the South region by the Autonomous University of Madrid (Spain), the East region by Charles University (Czech Republic), and the West region by Leuphana University of Lüneburg (Germany).

UE4SD seeks to establish a leading expert group in Education for Sustainable Development competences in higher education in Europe and will create a platform to combine and share the expertise of network partners so that they can inform policy and practice well beyond the life of the project. Its activities are closely associated with COPERNICUS Alliance – the European Network of Higher Education for Sustainable Development.

1.1. Purpose, process and development of the mapping exercise

The first phase of the project has involved each country completing a mapping template to capture the status of ESD within Higher Education at the national level as well as to identify existing ESD professional development opportunities for university educators. The template and the guidelines for collecting the information were developed by the regional coordinators and presented to partners in regional meetings during February and March 2014 in the different regional hubs.

Partners from the Western European region participated at the regional meeting in Lüneburg, Germany, during 27-28 February 2014. After the meeting, national template coordinators worked together with other project partners from the same country to collect the data for the template. National coordinators submitted the completed template to the regional hub coordinators in May 2014, hence the report reflects the national status and initiatives as of May 2014.

The national templates inform one of the four regional reports (Northern, Western, Southern and Eastern Europe) to be compiled by the regional coordinators. These summary reports will be combined to generate a single state of the art document on opportunities that exist for the development of ESD competences for university educators. This report is expected to be completed by July 2014. The main report will also identify strategies and make recommendations for progressing this important area of learning. In addition, the outcomes of this review will be presented at the annual UE4SD Conference in Prague in October 2014. The data provided does not claim to be complete, but it reflects estimations of experts in the field of sustainability in higher education from the national UE4SD partners and presents a snap-shot of ESD professional development opportunities. The state of the art report will inform the second and third phase of the project, which seek to develop a leading practice publication on professional development in ESD for university educators and an online platform of resources to support this important area. These outputs will in turn support the establishment of an Academy for ESD in Higher Education.

1.2. Higher Education in the UE4SD region West

The region of Western Europe includes the countries of Austria, Belgium, France, Germany, the Netherlands and Switzerland and a total of 911 Higher Education institutions with approximately 6,47 million students, as outlined in table 1. These partners mapped the status of ESD within Higher Education in their countries with the aim to contribute to an overall understanding about ESD in their countries, which may serve as a basis for the development of ESD competences of university educators, as well as and contributed examples of professional development opportunities in ESD for university educators.

Table 1: UE4SD partners from Western Europe and the distribution of higher education institutions and students

Country	Partner	Number of Higher Education institutions	Number of Higher Education students
Austria	University of Graz	55	350.000
	University of Natural Resources and Life Sciences (BOKU) Vienna		
Belgium	Leuven University College	26	230.000
France	University of Versailles	320	2.387.000
Germany	Leuphana University Lüneburg	415	2.613.000
Netherlands	Open University of Netherlands	52	660.000
Switzerland	University of Basel	43	230.000
	Total	*911*	*6.470.000*

1.3. Collection and validation of the data for the national reports

The collection of data for completing the national reports was very similar in the six partner countries (see table 2 below).

Table 2: Overview of data collection for completing the national reports

	Internet and desktop research	Interviews with key informants	Forwarding the template to key informants
Austria	✓		✓
Belgium	✓	✓	✓
France	✓	✓	
Germany	✓	✓	✓
Netherlands	✓	✓	✓
Switzerland	✓	✓	

For the collection of data all partners in the Western European region conducted internet and desktop research, where key publications and documents were studied. In Austria the partners additionally searched the websites of universities and universities of applied sciences by using key words, such as "sustainability", "ESD", "continuing education", "lifelong learning", "university

didactics" and "social responsibility" to gather information. In Germany key documents in the field of ESD in HE presented the primary source for further internet research. The desktop research by the Swiss partner was additionally informed by data that has been collected in another international project on ESD indicators.

All partners, except from Austria, furthermore personally exchanged and conducted interviews with key informants in the field of ESD in Higher Education. The interviews took place face-to-face or via the phone. The Austrian, Belgian, German, Dutch and Swiss partners also used the approach of forwarding the template to key informants via e-mail and asked them to fill out specific parts of the template or consulted them regarding specific information.

Beside the internet and desktop research and consultation of key informants, the German partners also sent a call for contributing examples of ESD professional development for university educators via the e-mailing list of "AG Hochschule", the working group on Higher Education.

For the validation of data Austria, Germany, the Netherlands and Switzerland sent the completed (or almost completed) template to key experts and asked for their feedback. The validation in the Netherlands was furthermore supported by telephonic interviews with key informants. In Belgium the data and information was checked with key informants via phone calls, as well as was compared with different sources (internet and publications). In France the validation of data was as well supported by interviews with key informants.

2. The status of ESD within higher education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences. The sections summarise and provide key messages from the national reports of Austria, Belgium, France, Germany, the Netherlands and Switzerland. For more detailed information please refer to the national mapping reports, which can be found in Annex 2.

2.1. National strategies, policies or legislations, which recognise ESD in higher education in the partner countries

Strategies, policies and legislations on education for sustainable development in higher education at the national level present an important framework and support for the development of ESD initiatives at the institutional level. As presented in the table below, the existence of national strategies, legislations or policies that recognise ESD in higher education varies in the UE4SD partner countries in the Western European region.

It can be stated that in all partner countries, namely in Austria, Belgium, France, Germany, the Netherlands and Switzerland, national strategies or action plans on sustainable development or education for sustainable development exist at the national level. Belgium and Germany moreover describe ESD strategies or action plans at the province level – for the province of Flanders in Belgium and Baden-Württemberg and Schleswig-Holstein in Germany. Most of these national and regional documents present general sustainability and/or ESD strategies, but do not exclusively address ESD in higher education. Four out of six partner countries, namely Austria, Belgium, Germany and Switzerland, mention that their ESD strategies at the national or province level are informed by international ESD declarations and guidelines. In all cases the strategies refer to the goals and implementation of the UN Decade on Education for Sustainable Development (2005-2014); several strategies in Belgium additionally refer to the UNECE strategy.

Five out of six countries, in this case Austria, Belgium, France, Germany and Switzerland, state that they have Higher Education acts, which address ESD. The acts, as an example, encourage higher education institutions (HEIs) to include ESD into their competency profiles, request that the institutions develop sustainability concepts, or address the importance of continuing education for staff at HEIs. Beside the higher education acts, only Switzerland reports that they have a legislation that addresses ESD in higher education. The new Federal act on promoting tertiary education and coordination will demand a commitment to sustainable development as part of the accreditation requirements that universities and colleges must satisfy.

Table 3: Overview of key messages about national strategies and legislations, which recognise ESD in Higher Education on the country level

	HE act	Legislation	(E)SD strategy/ action plan at the national level	(E)SD strategy/ action plan at the province level	Informed by (E)SD international declarations and guidelines
Austria	✓		✓		✓
	Key message: - Sine 2002 Austria has a national strategy for sustainable development, called "A sustainable future for Austria". The role of education and research is mentioned, but does not explicitly refer to ESD. - In 2008 a "National Strategy for Education for Sustainable Development" was developed in order to support the implementation of the UN Decade on ESD. - According to the Austrian University Act, universities are requested to develop sustainability concepts for the development of society and environment.				
Belgium	✓		✓	✓	✓
	Key message: - At the national/federal level ESD is mentioned in the "Federal Plan for Sustainable Development". - In Flanders ESD is promoted in following documents and initiatives: "Flemish Strategy for Sustainable Development" (by the Flemish Government), the "Memorandum of the Education Department 2009-2014" (referring to the implementation of the UNECE strategy and the UN Decade on ESD), the ESD platform and the "Flemish Implementation Plan for ESD" (to support the implementation of the UNECE strategy and presents a networking and resources platform), Ecocampus initiative (environmental management and guidelines to integrate sustainability in higher education), and the development of Competency Profiles by the Flemish Interuniversity Council and the Council for Flemish University Colleges (encouraging HEIs to include ESD in competency profiles, which they then have to proof in their reporting and accreditation processes). - Most of the SD/ESD strategies in Flanders have been initiated by the Department of Environment, Nature and Energy and not by the Department of Education. They often stay at the department level and have not been implemented on the ground. - (The French and German communities have not been taken into account.)				
France	✓	✓	✓		
	Key message: - Grenelle 1 Act, article 55 (2009): HEIs have to develop green plans for their campuses. The Green Plan addresses environmental management as well as social policy for teaching and aims at encouraging universities to develop sustainability strategies. It was developed by the Conference of University Presidents (CPU) and the Conference of Higher Schools (CGE) together with the Ministry of Ecology and launched in 2010. - The National Strategy for an ecological transition towards a sustainable Development (SNTEDD) calls for widespread ESD from kindergarten to higher education (2014).				
Germany	✓		✓	✓	✓
	Key message: At the national level: - "Perspectives for Germany: Our Strategy for Sustainable Development" by the Federal Government Germany (2002). - The Institutional contract 2014-2018 between the ministry and the HEIs, addressing				

	sustainability aspects as part of the university agreements. - Framework Act for Higher Education by the Federal Ministry of Education and Research (2005) addresses the importance of continuing education for staff at HEIs. Examples at the federal state level: - Action plan "Shaping the Future - Education for Sustainable Development" in the province of Baden-Württemberg, addressing the implementation of the UNDESD. - Action plan on the UN Decade on ESD in the province of Schleswig-Holstein, which aims at embedding ESD into the target agreements between universities and the province.				
Netherlands			✓		
	Key message: - In the national Government's Approach to Sustainable Development from 2007, explicit attention was paid to ESD and a national policy programme on ESD was initiated (LvDO). LvDO (Learning for Sustainable Development) focused on the integration of sustainability in everyday practices; the activities continued in the policy programme "Social innovation for a green economy" (since 2013).				
Switzerland	✓	✓	✓		✓
	Key message: - The Federal Councils' Sustainable Development Strategy 2012-2015 addresses ESD on all educational levels. It emphasis the need and the political will to implement sustainability in teaching and research on the tertiary level but does not provide further details. The strategy has incorporated recommendations of the UN Decade on ESD. - A new measure has been integrated in the strategy, which aims at making sustainable development an integral part of tertiary education in Switzerland. - The new Federal act on Promoting Tertiary education and Coordination in the Swiss Tertiary education System will demand a commitment to sustainable development as part of the accreditation requirements that universities and colleges must satisfy. - Some of the cantonal universities have goal-setting agreements (performance agreements) with the respective government explicitly mentioning sustainability in teaching and research.				

2.1.1. ESD processes and approaches that are promoted within national strategies

The national strategies and policies described in the previous question are being investigated at a more detailed level by trying to identify ESD processes and approaches that are promoted within these strategies. The key messages are presented in the table below.

It can be summarised that many documents do not provide detailed information about ESD processes and approaches. Some strategies in Austria, Belgium, Germany and Switzerland mention that ESD shall be promoted and implemented in all levels of the education system – on the one hand addressing a whole of institution approach, and on the other hand referring to the integration of ESD in formal, non-formal and informal education. The importance of networking and collaboration is highlighted in strategies in Belgium, the Netherlands and Switzerland. In Germany and the Netherlands ESD is seen as an important pedagogical approach. In Belgium and France the development and implementation of sustainability policies is addressed. In Switzerland research on sustainability issues and the societal contribution to the achievement of sustainability are of further importance.

The documents or information provided are not detailed enough so that findings about ESD principles, such as systemic, critical or foresighted thinking, could be drawn.

Table 4: Overview of key messages about ESD processes and approaches that are promoted within national strategies

Country	Key message
Austria	- Within the Austrian Strategy for Sustainable Development education is especially highlighted in one of four fields of action, namely Quality of Life in Austria. Besides content and methods, values and skills are mentioned to be crucial for the implementation of sustainability. The integration of sustainability concepts is promoted in all levels of the education system. - The Austrian Strategy for ESD defines objectives, focus areas and elements for implementation, as well as responsibilities and the implementation of ESD in formal, non-formal and informal education.
Belgium	- Most policies endorse the UNECE strategy and thus focus in capacity building, while mentioning in rather general terms. - Two practical initiatives at the Flemish level, the ESD platform and the Ecocampus Initiative do promote actual ESD processes and approaches. The ESD platform provides guidelines and good practices on ESD in formal, non-formal and informal learning environments; Ecocampus promotes several processes and approaches, specifically for higher education, i.e. policy development (through guidelines, theoretical frameworks, reflection instruments); competences for SD (through guidelines); learning networks (e.g. for social work, teacher training, economic study programs).
France	- SD/ESD processes are developed at the institutional level, on a voluntary basis. The green plan provides tools to implement sustainability policies, mostly towards campus management and less towards curricula and research axis. - Sustainability is mostly introduced in separate disciplinary settings.
Germany	- ESD is rarely directly being addressed. It more involves a general discussion that education is important for sustainability. For instance it is mentioned that ESD is an important pedagogical approach to sustainability and it should be integrated and intensified in all areas of education.
Netherlands	- The focus lies on stimulating the integration of ESD in curricula, developing learning materials, supporting teachers through networking activities, and stimulating ESD pedagogies. With respect to ESD in higher education, activities are restricted to supporting networking of professionals in HESD.
Switzerland	- As a rule political documents pursue a whole school approach with regard to ESD in HEI. - With regard to HEI and sustainability at traditional universities and the ETHs they mostly address research on sustainability issues, national and international collaboration and the societal contribution to the achievement of sustainability. - Some of the cantonal universities have goal-setting agreements (performance agreements) with the respective government explicitly mentioning sustainability in teaching and research; as a rule these agreements do not specify details with regard to ESD approaches. - The accreditation requirements Universities of Applied Sciences (UAS) have to meet include also a domain "sustainability". According to this directive UAS have to design their educational offerings as well as their research and their service offers in line with sustainability, they have to foster sustainability competencies with their students, and they have to manage their infrastructures and resources in an efficient and environmentally friendly way. After the entry into force of the new federal act on promoting tertiary education, this will in a similar way also apply to other HEIs.

2.1.2. Reference to ESD professional development for university educators within national strategies

Although all countries in the Western European region report that national and/or regional strategies exist that refer to sustainability or education for sustainable development in higher education, the strategies of only one out of the six countries explicitly call for professional development for university educators to develop ESD competences. Namely the Belgian UE4SD partner reports that its "Ecocampus" initiative refers to ESD skills and capabilities within the context of the professionalization of university educators.

Some sustainability and ESD strategies in Austria, Belgium and Germany refer to the development of ESD competences, but not explicitly for university educators, or they refer to the importance of continuing training for educators, but again not explicitly for university educators. For instance some strategies define the development of competences for educators, but do not provide information on the kind of ESD competences they refer to and how they shall be promoted; they address competences educators need to be equipped with to integrate sustainable development in their educational activities or the need for ESD professional development for educators in all settings of formal, informal and non-formal education. In France the need for professional development has been identified, which is reflected in processes and actions that are detailed in a strategy document, the green plan, but competences or skills are not being mentioned. Table 5 lists the key messages of the countries related to ESD professional development for university educators within national strategies.

Table 5: Overview of key messages related to ESD professional development for university educators within national strategies

Country	Key message	
Austria	No	- The Austrian Strategy for ESD defines the development of competences for educators (in general, no focus on university educators) as one of six key elements for implementing the ESD strategy. The strategy does not provide information on the kind of ESD competences it refers to and how they shall be promoted.
Belgium	Yes	- The Flemish Implementation Plan for ESD contains a section dedicated to the competencies that educators need to be equipped with to integrate SD in their educational activities. - Within ECOCAMPUS: skills and capabilities are referred to within the context of professionalization of university educators. - Within the ESD-platform, it is addressed in general terms (not specifically for university educators, but for educators in all settings (formal, informal, non-formal)).
France	No	- The need has been identified, which is reflected in processes and actions that are detailed in the green plan with a series of application indicators, but competences or skills are not being mentioned. - Most considerations refer to the environment.
Germany	No	- It is often referred to the development of educational opportunities and research, but not to the professional development of university educators. For example several times it is being mentioned that universities should encourage the training of their employees, but this is not substantiated.
Netherlands	No	- No.
Switzerland	No	- No.

2.2. National initiatives on ESD professional development for university educators

The second question of the national mapping reports deals with national ESD professional development opportunities for university educators. The answers show that only one out of six countries in the Western European region does have national initiatives on ESD professional development. Nevertheless the other countries also report interesting initiatives in this regard (see table 6).

There are several national and regional initiatives in Austria, Belgium, France, Germany, the Netherlands and Switzerland that address sustainability in higher education and/or professional development, but mostly not explicitly focusing on the acquisition of ESD competences of university educators. In Belgium, in the province of Flanders, the network Ecocampus is the main driver in providing ESD professional development opportunities for university educators. Switzerland has a relatively new funding program focusing on sustainable development at universities, which can offer incentives for university educators to develop their ESD competences and explicitly calls for project proposals on ESD. A similar initiative has been reported by the German partner; there the federal government established funding opportunities in order to strengthen quality in higher education teaching. University didactic programs are being developed, some also in the field of ESD.

Table 6: Overview of key messages of national initiatives on ESD professional development for university educators

Country	Key message	
Austria	(No)	- Several initiatives address sustainability in higher education, but none explicitly focuses on ESD professional development for university educators. Examples: - Austrian University Conference – fostering quality in HE teaching. - Sustainability Award by the Federal Ministry of Science, Research and Economy and the Federal Ministry of Agriculture, Forestry, Environment and Water Management – fostering sustainability processes at HEIs.
Belgium	Yes	- In Flanders Ecocampus coordinates most of the initiatives on ESD professional development for university educators, such as conferences and workshops, thematic learning networks for university educators, science cafés, publications and guidelines, an ESD competency profile for teacher training or reflection instrument. - There are other initiatives as well, but not directly addressing the ESD professional development of university educators, such as a toolkit for Ecodesign in HE or ALERT-net, a digital platform created to promote ESD in formal and non-formal settings.
France	(No)	- Several initiatives were identified, emanating from different institutional levels, without particular coordination. Examples: - OPEDUCA – EU project to develop learning guidelines between schools and HE and future curricula for schools and university educators. - Sustainability Literacy Test – to assess the students' knowledge about sustainability. - Reference document of sustainable competences by CPU, which will be available in September 2014.
Germany	(No)	- There are various initiatives and strategies in the field of sustainability and

		ESD in HE, but hardly specified on the explicit professional development for university educators.
		Examples:
		- German Commission for UNESCO – addresses the integration of ESD into HE teaching and learning; key sustainability competences students shall develop are mentioned, but not competences of university educators.
		- Resolution about the German contribution to the UN Decade Education for Sustainable Development by the German Rectors' Conference and the German Commission for UNESCO.
		- Lübeck Declaration "Higher Education and Sustainability" – addresses the implementation of the UNDESD and the UNECE strategy of 2005.
		- "Transfer 21" – developed a strategy paper on teacher education, which highlights the importance of sustainability competences and ESD knowledge of teachers.
		- Quality pact for teaching – comprehensive financial funding opportunity by the government to strengthen quality in HE teaching. A variety of HE institutions have fostered their university didactic programs, some also in the field of ESD, but most of these initiatives are currently in the planning or pilot phase.
Netherlands	(No)	- Dutch universities have a mutually recognized 'basic educational qualification' (BKO) for university teachers, which serves as a proof of didactic competence. The BKO curriculum consists of a series of in-house training courses, which may differ somewhat between universities, but the curriculum as a whole has to conform to nationally agreed standards. Current BKO curricula do not include ESD professional development. - Further options for professionalization of university teachers are currently discussed and include: a formal 'senior educational qualification', compulsory 'permanent education' activities, mentoring and coaching programs, and teaching/learning communities. ESD could be a topic in these professionalization options, but is currently not yet in the picture.
Switzerland	(No)	- Since 2013 Switzerland has a funding program focusing on ESD at the tertiary level (but restricted to cantonal universities) – the "Sustainable Development at Universities Programme" 2013-2016. It is run by the Network for Transdisciplinary Research (td-net) of the Swiss Academies of Arts and Sciences on the basis of a mandate by the Swiss University Conference (SUC) and in partnership with the Mercator Foundation Switzerland. Universities can submit proposals to get funding for ESD-projects. Many of these projects will at least indirectly impact ESD professional development for university educators, as most of them encompass some kind of exchange. The third call will include, as a complete new element, the project type "Faculty training courses for sustainable development". Thus, by 2015 there will most probably be some Swiss projects starting with a special focus on ESD professional development for university educators. - The federal institutes of technology (ETH Zurich and ETH Lausanne) have their own initiative supporting ESD-projects, but ESD professional development for university educators is not yet addressed. - The "Swiss Conference of Rectors of Universities of Teacher Education, COHEP" mandated a consortium with the development of suggestions on how to integrate ESD in teacher education. The groups' suggestions encompass recommendations regarding ESD professional development for educators of teachers, but they are not yet implemented.

2.3. Strategic plans and guidelines of higher education institutions to promote ESD

The systemic promotion of education for sustainable development in strategies or guidelines of higher education institutions provide an important framework for the acceptance and development of university didactic opportunities in the field of ESD.

As outlined in table 7 below the Netherlands state that many of their HEIs have included ESD in strategic plans and guidelines, Austria, Germany and Switzerland have the impression that several guidelines promote ESD, and Belgium and France state that a few HEIs in their countries have strategic plans and guidelines on ESD. It has to be noted that these statements are based on estimations.

Beside the promotion of ESD within strategic plans, guidelines or mission statements, higher education institutions have integrated aspects of sustainability and ESD in their study and course programs, quality assurance, research and operational activities or have special teams and delegates concerned with sustainability.

Table 7: Overview of key messages of strategic plans and guidelines of Higher Education institutions to promote ESD

	Estimation	Key message
Austria	Several	- 9 out of 22 universities are members of the Alliance of Sustainable Universities in Austria and have developed sustainability strategies. - Most of the universities commit to implement and realize measures related to lifelong learning and continuing education, but without direct reference to ESD. - None of the 21 Universities of Applied Sciences have explicit strategic plans to promote ESD; nevertheless several of them mention sustainability related aspects within their vision or mission statements. - Many HE institutions offer sustainability related study programs and courses or carry out research in the field of sustainability.
Belgium	Several	- Some institutions signed the Copernicus Campus Charter. - Some institutions have implemented (E)SD in their mission statement, policy plan, etc. - From 2015 on, ESD will form part of the quality assurance and accreditation process of HEIs. Therefore, more and more institutions undertake actions to integrate ESD in their daily practice and mission statements.
France	Few	- Approx. one third of the HEIs have developed actions and some strategic plans with self-auditing.
Germany	Several	- In the guidelines and overall concepts of many universities sustainability and environmental protection is integrated. - ESD is most often applied in regards to individual initiatives in German universities. - A variety of German higher education institutions offer study programs or courses that address sustainability aspects. - Some universities provide the opportunity for their staff to attend further trainings on issues of sustainable development or strive for possibilities to encourage educators to offer sustainability related courses and stimulate change processes for ESD.

Netherlands	Many	- Many Dutch universities have adopted mission statements, policies and work plans concerning sustainable development, applied to operational management, research and education (ESD).
Switzerland	Several	- Several Swiss HEIs have strategic plans or guidelines to promote ESD, many of them even have special teams and delegates concerned with sustainability.

2.4. Initiatives of higher education institutions to support the professional development of university educators in ESD

Like in the previous question on guidelines of higher education institutions to promote ESD, also this question addresses the level of higher education institutions, but focuses on information of concrete initiatives that support the professional development of university educators in ESD.

As observed in table 8 below the partners report that there are hardly any initiatives to support the professional development of university educators in ESD, which are provided by higher education institutions themselves. The partners from France, the Netherlands and Switzerland estimate that no higher education institutions in their countries offer such initiatives; in France as there are no incentives to develop such initiatives. In the Netherlands and Switzerland the situation differs – higher education institutions are engaged in ESD, but initiatives focus more on facilitating networking and exchange of university educators and are not implemented on a professional and institutional level; in Switzerland the initiatives are mostly on a bottom-up basis. Austria and Germany face similar conditions. Both countries report that there are very few initiatives, however a lot of potential to implement such professional development opportunities for university educators. As in the Netherlands and in Switzerland initiatives are very often on an informal networking basis, where educators and professors meet and exchange experiences. Additionally in both countries opportunities in university didactics gain in importance.

Only the Belgian partner states that in their country several higher education institutions have developed initiatives to support the professional development of university educators in ESD, which include workshops, conferences, projects and teaching resources.

Table 8: Overview of key messages of initiatives of Higher Education institutions to support the professional development of university educators in ESD

	Estimation	**Key message**
Austria	Few	- Although there are very little initiatives to support the ESD professional development of university educators, there is a lot of potential to implement such opportunities. - Initiatives comprise the university course "Education for Sustainable Development – Innovations in Teacher Education" at the Alpen-Adria-University Klagenfurt, some university didactic or teaching competence centres that foster quality in HE teaching and plan to develop support for university educators in the field of ESD, and an online teaching resources platform for sustainability in HE, called "Sustainicum Collection". - Centres as well as various working groups in the field of sustainability in HE provide platforms where ESD competences of researchers and university educators could be supported.

Belgium	Several	- In general initiatives on ESD often concern students in particular or students and staff in general. Universities also tend to have an (interdisciplinary) research department related to SD. However, some examples of individual projects and programs to support the professional development of university educators in ESD can be provided as well, which include different projects, conferences and workshops, publications, the presence of sustainability coordinators, program scans and audits as well as the integration of SD in the competency profiles of some study programs.
France	None	- There is no requirement for training university educators; hence there are no incentives to develop such opportunities.
Germany	Few	- There are a few initiatives to support the professional development of university educators in ESD. Many HEIs offer voluntary programs in university didactics for their staff, but they hardly focus on ESD. Additionally in some cases the focus is not on the educators' competences, but on the competences students should acquire. - At several universities opportunities for continuing education are directed to the entire university staff and not explicitly to educators. - The working group on Higher Education (in the framework of the UNDESD) fosters exchange and networking.
Netherlands	None	- Many Dutch universities have coordination units developing initiatives for integration of SD in operational management, research and education. Concerning education, the focus is on facilitation networking of teachers, including exchange of ideas, approaches, practices and learning materials. There are no initiatives focusing on the professionalization of educators in ESD.
Switzerland	None	- As a rule they do not. Some HEI offer courses in Sustainability for their educators, but they do not offer courses specifically designed to support competencies in ESD on a tertiary level. Some HEIs do have bottom-up ESD working groups in this regard. What they might do are special days and/or workshops, but if they do so, they don't do it on a regular basis. This might change due to the funding program focusing on ESD.

2.5. ESD as a part of quality assurance and accreditation processes of higher education institutions

Besides ESD in strategic guidelines and the support of higher education institutions to provide professional development opportunities in ESD, information about the integration of ESD in quality assurance and accreditation processes is of further interest.

Three out of six partners in the Western European region, namely Belgium, the Netherlands and Switzerland, report that ESD is part of quality assurance of their higher education institutions; in Austria, France and Germany this is not the case (see table 9). Due to recent developments ESD has become a requirement of the national accreditation system in higher education in Switzerland, universities of applied sciences even have a longer history in sustainability and quality assurance. In the Netherlands HEIs are not obliged to report on ESD activities within the accreditation processes, but are given the opportunity to choose "sustainable higher education" in the national accreditation

framework. Their performance is being assessed with the Auditing Instrument for Sustainability in Higher Education (AISHE). The same applies to Belgium – ESD is not a compulsory criterion in the accreditation process so far, but can be reported on a voluntary basis. Two Belgian higher education institutions also use AISHE to assess their sustainability performance. From 2015 on, ESD will form part of the quality assurance and accreditation process of HEIs in Belgium. In Austria and Germany some higher education institutions have included sustainable development within their performance agreements with the ministry on a voluntary basis.

Table 9: Overview of key messages about ESD as a part of quality assurance and accreditation processes at Higher Education institutions

Country	Yes / No	Key message
Austria	No	- Austrian Higher Education Institutions do not have to include ESD into their quality assurance systems, nevertheless some institutions refer to sustainability aspects within their quality assurance. For instance some institutions mention sustainability and their social responsibility within their performance agreements with the Ministry of Science, Research and Economy and hence also need to report about it. - Some institutions carry out environmental management programs.
Belgium	Yes	- ESD is not (yet) a compulsory part of quality assurance and accreditation. However, individual HEIs may choose to include the topic in their quality assurance system and in their reporting towards the accreditation organisation. Based on this reporting, they may request and receive a special "quality label" of sustainability. Belgium uses the same accreditation process as in the Netherlands (see below). - To date, only two HEIs have integrated ESD in quality assurance, using the Auditing Instrument for Sustainability in Higher Education (AISHE). - From 2015 on, ESD will form a structural part of the quality assurance and accreditation process of HEIs. This means their efforts with regard to ESD will be taken into account during the institutions review.
France	No	- In France there is no formal accreditation process of staff. - For Institutions there is no specific process at the moment but the Sustainability Literacy test has this objective: i.e. integrate ESD level for example in EQUIS certification criteria.
Germany	No	- In Germany performance agreements and quality assurance are reached between the HEIs and the ministries of the particular states. - Sustainability issues are included in some target and performance agreements of universities, not explicitly in the context of ESD, but in the field of environmental protection, social responsibility, sustainable campus management and lifelong learning.
Netherlands	Yes	- In the national accreditation framework, universities/study programs are given the opportunity to distinguish themselves by choosing a special feature, e.g., internationalisation, but also "sustainable higher education". This special feature means that *"the goal of sustainable development has been integrated*

		comprehensively and systematically in the study program". The formal assessment of this special feature can be done with AISHE 2012 (Auditing Instrument for Sustainability in Higher Education).
Switzerland	Yes	- The national process of accreditation encompassing sustainable development is dealt with in the "Federal act on Promoting Tertiary education and Coordination in the Swiss Tertiary education System". Sustainable development is mentioned as one of the requirements of accreditation (HEI shall perform their tasks in line with the principles of sustainable development; ESD is not specifically mentioned). The accreditation process for Swiss HEIs has just started, but it will equally concern universities, universities of applied sciences and universities of teacher education. - The accreditation process concerning universities of applied sciences has a longer history (see question 1.1). They have to meet accreditation requirements that encompass a domain "sustainability".

2.6. Higher Education networks, partnerships and main drivers that support the professional development of university educators in ESD in the partner countries

Present question deals with identifying important higher education networks and drivers in the field of ESD in higher education, which support ESD professional development opportunities for university educators. As outlined in table 10 the different networks and partnerships can be divided into following categories: regional and national networks, international networks, networks at higher education institutions, regional and national associations, NGOs and foundations, as well as consulting agencies.

Regional and national associations were mentioned ten times, among them NGOs and foundations are listed most often, followed by regional networks (mentioned eight times) and international networks (COPERNICUS Alliance and six other networks), six networks at higher education institutions and one consulting agency dealing with ESD and professional development. Regional and national associations, NGOs and foundations also include policy institutions, such as conferences of university presidents, governmental institutions or a commission for UNESCO. Regional and national networks include both university networks for sustainable development as well as platforms outside higher education institutions, while international networks comprise transnational, European as well as international networks.

Table 10: Overview of Higher Education networks and partnerships that support the professional development of university educators in ESD

	Regional and national networks	International networks	Networks at HEIs	Regional and national associations, NGOs and foundations	Consulting agencies
Austria	Alliance of Sustainable Universities in Austria; platform "OpenScience4-Sustainability"	COPERNICUS Alliance; Regional Centres of Expertise on ESD Graz-Styria and Vienna		Austrian Agency for Education for Sustainable Development; Environmental Education Forum	
Belgium	ECOCAMPUS	COPERNICUS Alliance			
France	RéUniFEDD	COPERNICUS Alliance		CPU (Conference of University Presidents); CGE (Conference of Higher Schools); CIRCES association	
Germany	Network of universities for Sustainable Development of the province of Baden-Württemberg	COPERNICUS Alliance		AG Hochschule (working group on Higher Education); German Commission for UNESCO; German Rectors' Conference	
Netherlands	DOC (Sustainable Education Coalition); PLADO (online community for sustainable development and education); DUPLHO (network of 18 universities of applied science)	COPERNICUS Alliance		DHO (foundation for 'sustainable higher education')	HOBEON (agency for consulting and certification)
Switzerland		50+20 (Management education for the world); LeNa (Teacher education for sustainable	Networks in universities of teacher education; Informal networks at universities	éducation21 (foundation on behalf of the Swiss Conference of Cantonal Ministers of Education (EDK), the federal	

	development); ENSI (Environment and School Initiatives); German AG Hochschule (working group on HE); COPERNICUS Alliance	of Bern and Basel, ESD steering group at the university of teacher education in Zurich, working group at the Zurich University of Applied Sciences; Annual Sustainable University Day (2014-2017)	government and civil society); COHEP (Swiss Conference of Rectors of Universities of Teacher Education)	

2.7. Development of higher education initiatives in response to the UNECE ESD competences

As the template for the national mapping reports refers to the ESD competence framework by UNECE (2011), a question gathers information if higher education institutions in the partner countries have developed initiatives in response to the UNECE ESD competences.

Two out of six countries, Belgium and Switzerland, mention that higher education institutions in their countries have developed initiatives based on the UNECE ESD competence framework, as can be observed in table 11. As a rule the initiatives cover university projects that are based on the UNECE ESD competences, one Belgian initiative additionally addresses ESD competences within teacher trainings and in Switzerland the "Sustainable Development at Universities Programme" has been informed by the UNECE framework.

Four countries, namely Austria, France, Germany and the Netherlands, report that they are not aware of initiatives and projects that have been informed by the UNECE ESD competences. At least the UNECE ESD competences document has been translated into German and Dutch.

Table 11: Overview of key messages if Higher Education initiatives have been developed in response to the UNECE ESD competences

	Yes / No	Key message
Austria	No	- Not aware of initiatives or projects in Austria that have been developed in response to the UNECE ESD competences.
Belgium	Yes	- The Ecocampus network has developed two initiatives: ESD competences within teacher training and "LEIDRAAD" – General guidelines to integrate competences in study programs profiles. - Leuven University College has performed several projects focusing on competences and staff development, such as the projects "Sustainable Development and Higher Education", "Toolkit ESD-Competences for Marketing Teachers", and "Echo for a sustainable

		future: transition towards sustainable higher education".
France	No	- None that could be determined.
Germany	No	- Not aware of initiatives in the HE area, but the UNECE report "Learning for the future" has been translated into German and a European project called "Real World Learning Network", which addresses outdoor and informal learning for sustainability, picks up several competence concepts, amongst other the UNECE competences on ESD.
Netherlands	No	- The UNECE ESD competences document has been adapted and translated into Dutch, specifically for teacher training institutes, which focus on teachers for primary schools. There are no initiatives developed in higher education in response to the UNECE ESD competences document.
Switzerland	Yes	- The "Sustainable Development at Universities Programme" 2013-2016 is such an initiative: One of the already running projects that also addresses educators is the project "ESD Toolkit for Faculty" by the University of St. Gallen. The project focuses on the development of a toolkit that supports and enables faculty in developing key competences for sustainable development in their students. Another one is the project "Development of a Curriculum Integrating Sustainable Development in Management Education", at the University of St. Gallen.

3. Professional development opportunities in ESD for university educators

After gaining insights into the integration of education for sustainable development in higher education in the partner countries, the second part of the report provides an overview about concrete examples of ESD professional development opportunities for university educators in the UE4SD West region. Each partner was asked to provide detailed information on up to three key professional development opportunities in their countries, which target university educators and how they can gain ESD competences and strengthen their ESD teaching and learning experiences. No claim is made that this is a complete list. Present report looks for professional development opportunities that require some kind of interaction, and hence do not include educational resources or toolkits as such.

It can be noted that for many partners it turned out to be a difficult task to identify ESD professional development opportunities for university educators. The mapped examples by partners in Austria, Belgium, France, Germany, the Netherlands and Switzerland have been clustered into three categories:

- Good practice examples that explicitly focus on the ESD professional development of university educators,
- Examples, which meet some requirements, still present interesting initiatives, but might not explicitly focus on developing ESD competences of the target group of university educators,
- Examples, which do not meet the requirements or do not provide sufficient information (i.e. as the initiatives are still in the planning phase).

Partners from the Western European region in total described twelve examples of ESD professional development opportunities for university educators, whereby four examples have been identified as good practice examples, five examples as further interesting examples and four examples could not be taken into consideration as they are still in the planning phase and hence several questions could not be answered, or they do not present professional development opportunities as such but only resources or documents. One example each from Austria, Belgium, France and Germany has been identified as good practice examples; the further interesting examples comprise one example each from Austria, Germany, the Netherlands and two examples from Belgium; the examples that could not be taken into consideration are one example from Austria and two from France. The Swiss partner did not report a proofed and tested example, which they would consider as a leading practice of ESD professional development for university educators. However initiatives are in the planning process in Switzerland and projects are running and by the end of 2014 further details will be available. Switzerland will provide examples by the end of 2014 or beginning of 2015.

Tables 12 and 13 provide summaries of the professional development opportunities as of May 2014, whereas tables 14 and 15 provide more detailed information about the different examples. The in-depth descriptions of the examples in the national mapping reports can be found in Annex 3.

Table 12: Good practice examples of professional development opportunities in ESD for university educators

Professional development opportunities in ESD for university educators		
A list of most appropriate examples that explicitly focus on developing ESD competences of university educators		
Title	**Country**	**Explanation**
ESD-Innovation in Teacher Education	Austria	The four semester course "ESD Innovation in Teacher Education" at the Alpe Adria University Klagenfurt targets university/teacher educators. The participants shall acquire subject-related as well as didactic competences for the organisation of teaching and learning processes in ESD, and become qualified for the planning, realisation and documentation of research projects. The course comprises following modules: - Concepts of sustainable development, topics of ESD, research methods, conception of own project and research plan - Didactic strategies in ESD and research methods - Research methods; visualisation and presentation techniques; cooperative further education.
Learning networks – Ecocampus	Belgium	The teaching support initiative by Ecocampus targets educators from higher education institutions as well as professionals from the profit and non-profit sector. With this initiative SD shall be embedded in Flemish higher education on a more structural basis: - by offering the knowledge educators need to implement SD in their courses; - by presenting some good practices/practical examples (with special focus on didactic approaches to facilitate SD in the classroom; especially in the network for teacher trainers); - by exchanging experiences with experts and colleagues. The initiative comprises four different learning networks in the areas of social work, teacher training, business studies and engineering.
The process of elaboration of a reference document on sustainable development competencies for Higher Education	France	The Conference of University Presidents (CPU) and the Conference of High Schools (CGE) in France have installed an open working group with the aim of producing a reference framework of sustainable development competences for higher education. Stakeholders (e.g. students and professional organisations) and university staff from a variety of disciplinary backgrounds met several times to discuss relevant ESD skills and competences for educators, which resulted in a collective learning experience. This case focuses on the value of the process in developing such a reference framework.
Teaching for the Leuphana semester	Germany	This teaching support initiative targets university educators at the Leuphana University of Lüneburg, who hold lectures in the first semester. The seminar focuses on ESD connected with undergraduate research. The participants learn about requirements, aims and challenges of a module, called "Responsibility in Science" of the first semester. During this semester students shall experience a research cycle while working in interdisciplinary teams. The seminar for university educators deals with: - Sustainable development and responsibility in science

		- Sustainability and action oriented teaching - Experience undergraduate research as didactic concept - Exchange, peer learning and consulting.

Table 13: Further interesting examples of professional development in ESD for university educators

Professional development opportunities in ESD for university educators		
A list of interesting examples that address ESD, but do explicitly focus on developing ESD competences of the target group of university educators		
Title	**Country**	**Explanation**
SUSTAINICUM Training Workshop	Austria	The SUSTAINICUM training workshops were part of a project, in which an online platform of educational resources for sustainability in higher education was developed. Within the training workshops, educators could get familiar with the idea of the platform and different teaching resources were interactively presented, which provided a valuable opportunity for the educators to exchange, gain insights into different ESD approaches and learn from each other.
Professional development initiatives at Leuven University College	Belgium	Leuven University College has a long history in fostering professional development opportunities for university educators, which is represented in a variety of projects on sustainability auditing and staff development. The initiatives aim at raising awareness, screening competences, integrating sustainability aspects into the curriculum and providing staff induction.
Toolkit Ecodesign in Higher Education (EHE kit)	Belgium	A toolkit on ecodesign serves as educational resource for workshops, which aim at providing educators with concrete tools and materials to implement SD in their courses. The ambition is: - raising awareness amongst the teaching staff (the importance of/ need for sustainable product development); - knowledge transfer (which themes can be addressed); - experience exchange between the participants.
Systemic constellation of sustainability in Higher Education	Germany	Sustainability coordinators at HEIs, researchers, lecturers and staff from management and administration are invited to participate in this seminar. On the basis of the method of systemic constellations, the seminar aims at preparing sustainability coordinators at HEIs to: - better understand what sustainable development for higher education comprises, - how sustainability can be integrated in their own institutions, - better understand barriers and drivers in the implementation process, - explore alternative opportunities for integrating sustainability in HE. Although the seminar is not directly targeted at university educators, they can gain a better understanding about approaches of integrating sustainability in higher education, which is essential for ESD as well.
Change Agent Training	Netherlands	The aim of this short course is to train internal change agents of HEIs to help the institution change to a more responsible and sustainable one. The seminar uses the AISHE 2012 framework as a basis.

3.1. Investigation of examples of professional development opportunities in ESD for university educators

Following investigation is based on the ESD professional development opportunities that were identified by the national UE4SD partners through thorough research. Nevertheless there is no claim for completeness.

As observed in the brief explanations of the mapped ESD professional development opportunities within tables 12 and 13, they can be quite diverse. Tables 14 and 15 below provide a more detailed overview about the professional development opportunities.

Facilitator of the professional development opportunity: According to the examples described for Austria, Belgium, France, Germany and the Netherlands, universities play an important role in the facilitation of ESD professional development. Other types of higher education institutions have not been mentioned. The examples show that five out of the nine examples of ESD professional development are facilitated by a university and one example is facilitated by a public waste agency in cooperation with a university. Another example is facilitated by a regional network, which has been established by a regional government, one example is facilitated by a consulting agency and one example by the conferences of university rectors and high schools.

Target group: As this report aims at identifying ESD professional development opportunities for university educators, practice shows that not all of the mapped examples only target university educators. Three out of nine examples explicitly target university educators. The other examples define their target groups in a broader sense – three examples address university staff from different fields, including university educators, researchers, sustainability coordinators and staff from management and administration. These examples also focus more on a holistic integration of sustainability issues in higher education institutions. Beside university educators, the other three examples target educators from different educational levels and teacher trainers, or external stakeholders, students and professionals.

Type of professional development: Two examples are reported to be teaching support initiatives, one example each presents a seminar, a short course, a coaching program and a continuing education course over four semesters, and three examples are reported to be mixed forms of teaching support initiatives, seminars and staff inductions.

Duration of the professional development opportunity: The duration of the professional developments is very diverse and ranges from 2-3 hours to four semesters with a total of 27 days. Two workshops are being described as teaching support initiatives that each take up to six hours, hence less than a day. These examples aim at raising awareness for the topic and providing an opportunity for exchange, but they might not be able to really build ESD competences of the participants. Two examples take three to four days in a row, which already present more in-depth trainings, where theoretical and methodological knowledge can be imparted as well. Two examples in total also take place three to six days, yet not consecutively, but in time intervals of several months, which has the benefit of continuous exchange and advancement. The longest example lasts four semesters with a total of 27 days, including four four-day seminars, five two-day regional meetings and a final event.

Purpose and objectives: Although all initiatives aim at imparting ESD knowledge, the specific objectives vary. Two examples, both can be found under the category of good practice examples, aim at acquiring ESD didactic competences for teaching and learning processes, one example especially focuses on undergraduate research. Debating concrete methods, study courses and projects as well as the continuous exchange contribute to these aims. Three examples have the purpose to impart

understanding on how to integrate ESD in higher education on a structural basis, not only in the area of education, but institutionally. Participants shall learn how to become change agents for sustainability, understand barriers and drivers, gain theoretical and methodological knowledge and get to know good examples. Further two examples of professional development opportunities mainly aim at raising awareness among the teaching staff for ESD and present a networking opportunity for knowledge transfer and the exchange of experiences; one also presenting the opportunity for university educators to present their own ESD approaches and experiences in an interactive setting. One example describes the learning process of developing a reference framework for ESD competences of educators and the last example reflects the systemic approach of a university to strengthen ESD professional development and hence addresses several issues, such as raising awareness, offering staff induction, competences screening, the integration of SD in curriculum or sustainability auditing.

Topic and focus of the professional development opportunity: Five examples focus on education for sustainable development and sustainability issues in higher education in a broader sense, by addressing ESD concepts, methods and didactic strategies or responsibility in science. Three examples focus on specific thematic topics or disciplines, which comprise business studies, teacher trainings, social work, engineering and eco design. One example deals with the application of the sustainability auditing framework AISHE 2012.

Pedagogical approach: Seven out of the nine examples mention that they use interactive workshops or seminar settings for their professional developments. Both examples from Germany additionally address specific methods, like the systemic constellation or research based learning. One example uses the format of regular meetings to continuously learn, discuss and exchange on ESD. Exchange, peer learning, individual feedback and consultation anyway play an important role and can be found in almost all examples.

Interesting aspects and the special value of the professional development opportunity: Two questions in the national mapping reports aimed at identifying the specific value and points of attraction for university educators to participate in the mapped initiatives. It can be stated that the exchange with colleagues, peer learning, the presentation of good practices in ESD and information about chances and implementation opportunities of ESD present incentives for the participants to attend the professional development opportunities. As far as it can be determined, the attendances at the workshops remain on a voluntary basis. One example reports that the workshop takes place in a pleasant location and not at university, which presents a relaxing atmosphere and motivation for the university educators to attend. Opportunities to meet experts, experience hands-on initiatives, inquire own projects or gain a better understanding about possibilities of integrating ESD in the higher education system are of further value for the participants.

Table 14: Analysis of good practice examples of professional development opportunities in ESD for university educators

Good practice examples of professional development opportunities in ESD for university educators								
	Facilitator	**Target group**	**Type**	**Duration**	**Purpose/ aims**	**Topic/ focus**	**Pedagogical approach**	**Special value**
ESD-Innovation in Teacher Education Austria	University	Educators from all educational levels; teacher trainers	4 semesters continuing education course	4 semesters (in total 27 days)	Acquire subject-related as well as didactic competences for teaching and learning processes	ESD – concept, didactic strategies, methods	Seminars, regional meetings and a final event – addressing theoretical-methodical foundation, learning from one's own practical experiences/projects; Projects and research activities on ESD	Creation of a learning community, inquiry of own project, exchange of experiences among participants, facilitation by a course team, combination of ESD and Research
"Learning networks – Ecocampus" Belgium	Regional network (by the Flemish government)	University educators, professionals from the profit and non-profit sector	Teaching support initiative, seminar	2-3 half-day meetings per year	Embed ESD in HE on a structural basis: theoretical and methodological knowledge, good practices examples on didactics, exchange experiences	Social work, teacher training, business studies, engineering	Regular meeting addressing knowledge building, methodologies to put this knowledge into practice, discussions and exchange	Opportunity to meet experts from the field, to exchange good practices, to visit organisations that integrate SD in their daily practice, hands-on initiative
The process of elaboration of a reference document on sustainable development competencies for Higher Education France	Conference of university presidents; conference of high schools in France	university educators, researchers, professional organisations, students, conferences of university presidents and high schools	Mentoring/ coaching program	1 year	Establishing a set of ESD skills and competences for educators to be used in various curricula	Developing a reference framework for ESD	Regular meetings and discussions	Discussion about principles of SD (and ESD) with various stakeholders, which leads to co-construction and learning

Teaching for the Leuphana semester Germany	University	University educators (who teach in the 1st semester)	Teaching support initiative	3 days	Experience undergraduate research as didactic concept, prepare educators for teaching in the Leuphana semester, work on common (teaching) challenges	Sustainable development, responsibility in science, action oriented teaching	Workshop sessions, input presentations, exchange, peer learning and consulting	Pleasant workshop location and relaxing atmosphere, be prepared to teach 1st semester students in a specific and innovative format

Table 15: Analysis of further interesting examples of professional development opportunities in ESD for university educators

Further interesting examples of professional development opportunities in ESD for university educators								
	Facilitator	**Target group**	**Type**	**Duration**	**Purpose/ aim**	**Topic/ focus**	**Pedagogical approach**	**Special value**
SUSTAINICUM Training Workshop Austria	University	University educators	Teaching support imitative	4-6 hours	Present own teaching methods and exchange; get to know the resource platform	Sustainability in higher education teaching (no disciplinary focus)	Interactive workshop, exchange	Exchange and learn from each other on an informal basis, get to know the resource platform
Professional development at Leuven University College Belgium	University	University educators, external stakeholders	Teaching support initiative, seminar, staff induction	- (different projects)	Raise awareness, staff induction, competences screening, integration of SD in curriculum, sustainability audit	Focus on business studies	Small thematic working groups, focus and audit groups, seminars, lectures	Shows the longitude efforts and process of a university supporting ESD professional development
Toolkit Ecodesign in Higher Education Belgium	Public waste agency and university	University educators	Teaching support initiative, seminar	2-3 hours	Raise awareness amongst the teaching staff, knowledge transfer, exchange of experiences	Eco design	Workshops	Exchange with colleagues on course contents, get to know the toolkit on eco design

Systemic constellation of sustainability in Higher Education Germany	University	Sustainability coordinators, university staff from different sections	Seminar	6 days (4 times 1.5 days)	Learn how SD can be integrated in HEIs, understand barriers and drivers in the implementation process, explore alternative opportunities	Identification of the current integration of SD within the HEI, mobilise support, develop solutions, monitor change	The seminar uses the method of the systemic constellation	Systemic constellations as an innovative approach, gather new insights into organizational development, gain system understanding
Change Agent Training Netherlands	Consulting agency	University staff from different sections	Short course	3-4 days	To train internal change agents to help a HEI to become more responsible and sustainable	Application of the sustainability auditing framework AISHE 2012	Group work mixed with individual input and individual feedback	Tailor made trainings to create support for change in all sections of the HEI

3.2. Competences for educators that shall be developed through the ESD professional development opportunities

Through the collection of good practice examples of ESD professional development for university educators, the project consortium also aimed at identifying key competences that are being addressed during the professional development opportunities. The basis presents the competence framework developed by an expert group by UNECE, who identified key competences for educators in ESD (2011). This framework identifies a comprehensive list of competences in the categories of "a holistic approach", "envisioning change" and "achieving transformation" in regards to the pillars of learning by Delors (1996), namely learning to know, learning to do, learning to live together, and learning to be.

Table 16 displays the competence framework for educators in ESD by UNECE (2011). The information provided about competences of the eight examples from Austria, Belgium, France, Germany and the Netherlands has been analysed by counting the number of answers for each competence, which can be found in brackets below. The competences, which have been additionally mentioned, are written in italics. Competences in the field of "learning to know", "learning to do" and "learning to be" were mentioned more often than competences in the field of "learning to live together".

Table 16: Competences for educators that shall be developed through the ESD professional development opportunities, based on the UNECE document "Learning for the future: Competences in Education for Sustainable Development" (2011) – Analysis of the national mappings (number of answers in brackets)

Competences for educators that shall be developed through the ESD professional development opportunities		
	Holistic approach *Integrative thinking and practice*	**Envisioning change** *Past, present and future*	**Achieving transformation** *People, pedagogy and education systems*
Learning to know *The educator understands….*	- the basics of systems thinking (7) - ways in which natural, social and economic systems function and how they may be interrelated (6) - the interdependent nature of relationships within the present generation and between generations, as well as those between rich and poor and between humans and nature (4) - their personal world view and cultural assumptions and seek to understand those of others (6) - the connection between sustainable futures and the way we think, live and work (7) - their own thinking and action in relation to sustainable development (9) *Others:* - *the integration and application of sustainability in various different disciplines (1)* - *a holistic understanding about concepts of sustainable development and ESD (1)* - *understand the responsibilities in science (1)* - *the relevance of sustainability issues within their institution (1)*	- the root causes of unsustainable development (5) - that sustainable development is an evolving concept (7) - the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability (5) - the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change (8) - the importance of preparedness for the unforeseen and a precautionary approach (6) - the importance of scientific evidence in supporting sustainable development (5) *Others:* - *the urgent need for equity and responsibility in science (1)* - *the importance of identifying barriers and drivers, problem setting, critical reflection and creative thinking in planning the effecting change and the implementation of sustainability in HE (1)*	- why there is a need to transform the education systems that support learning (7) - why there is a need to transform the way we educate/learn (7) - why it is important to prepare learners to meet new challenges (7) - the importance of building on the experience of learners as a basis for transformation (6) - how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice (8)
Learning to do *The educator is able to….*	- create opportunities for sharing ideas and experiences from different disciplines/places/cultures/generations without prejudice and preconceptions (5) - work with different perspectives on dilemmas, issues, tensions and conflicts (5) - connect the learner to their local and global spheres of influence (7)	- critically assess processes of change in society and envision sustainable futures (7) - communicate a sense of urgency for change and inspire hope (6) - facilitate the evaluation of potential consequences of different decisions and actions (6) - use the natural, social and built environment, including their own institution, as a context	- facilitate participatory and learner-centred education that develops critical thinking and active citizenship (7) - assess learning outcomes in terms of changes and achievements in relation to sustainable development (6)

	Others: - *Apply undergraduate research and link it to ESD (1)* - *Work in groups and courses together with people from different disciplines and with different perspectives (1)* - *work with different perspectives on the importance and holistic integration of sustainability in HE (1)*	and source of learning (8) *Others:* - *develop alternative approaches (1)*	
Learning to live together *The educator works with others in ways that….*	- actively engage different groups across generations, cultures, places and disciplines (4) *Others:* - *Concepts and methods how students can work together are directly being tested during the seminar (1)* - *Engage and motivate students (1)* - *actively engage different stakeholders in a common learning process towards sustainable development (1)*	- facilitate the emergence of new worldviews that address sustainable development (5) - encourage negotiation of alternative futures (5)	- challenge unsustainable practices across educational systems, including at the institutional level (7) - help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist (6) *Others:* - *help learners clarify their own and others perspectives on sustainability through dialogue and constellation work (1)*
Learning to be *The educator is someone who….*	- is inclusive of different disciplines, cultures and perspectives, including indigenous knowledge and worldviews (5)	- is motivated to make a positive contribution to other people and their social and natural environment, locally and globally (7) - is willing to take considered action even in situations of uncertainty (5) *Others:* - *is motivated to make a positive contribution to the organisational development towards the integration of sustainability (1)*	- is willing to challenge assumptions underlying unsustainable practice (5) - is a facilitator and participant in the learning process (8) - is a critically reflective practitioner (7) - inspires creativity and innovation (7) - engages with learners in ways that build positive relationships (6) *Others:* - *From teaching to learning – the seminar questions the role of educators and sees it more as a facilitator and moderator (1)*

4. Reflection and conclusion

This report provides a synopsis of the status of ESD within Higher Education and existing ESD professional development opportunities for university educators in the UE4SD partner countries of the Western European region, which involves the countries of Austria, Belgium, France, Germany, the Netherlands and Switzerland. The data situation is based on the perspectives of thorough national studies; nevertheless it needs to be underlined that the data provided does not claim to be complete. Following regional conclusion can be drawn from the national findings:

ESD gains importance in higher education

Insights from the national mapping reports have shown that sustainability issues and ESD have found its way into the higher education institutions.

In all countries exist some kind of strategic guidelines that mention ESD in higher education – both on the policy as well as institutional level. These strategies are seen as an important framework for the further systemic implementation of sustainability in higher education, as reflected by partners in Austria and Germany. The national reports also give the idea of a variety of initiatives addressing ESD in higher education, ranging from efforts to implement sustainability issues in study programs and courses, conducting research in this regard or establishing working groups for sustainability in higher education. Still there is only a handful opportunities of ESD professional development initiatives targeting university educators, which for instance is quite surprising for Germany, which has a long discussion on competences, especially related to the concept of "Gestaltungskompetenz", but only very little is happening in the field of ESD competences for university educators. Austria, as an example, is strongly engaged in ESD professional development for teachers, but lacks opportunities for university educators. However more and more Austrian higher education institutions aim to strengthen their opportunities in university didactics, which to some extent can also be seen as a success of the Alliance of Sustainable Universities in Austria, a network of universities that pushes and inspires each other to integrate sustainability across whole-of the institution. This example contrasts developments in France and the Netherlands, which report that there is a lack of coordination and exchange between single initiatives. The Dutch partner mentions that due to the financial crisis the engagement of higher education institutions in ESD has declined and the topic is not of priority any more, which has also lead to a decline in networking.

Little attention is being paid to the ESD professionalization of university educators

Nevertheless only a few initiatives could be identified, which support the professional acquisition of ESD competences of university educators. What can furthermore be observed is the fact that professional development in the field of education and teaching happens on a voluntary basis. Although teaching is a core responsibility of higher education institutions and quality in teaching becomes increasingly of interest, little attention is being paid to the professionalization of university educators. All partners report that there is no formal obligation and continuing education is considered an individual responsibility of the university educators. At least in the Netherlands this might change as Dutch universities in future will request a proof of didactic competence by their university educators. In Belgium many university educators seem to be enthusiastic about ESD, but lack the knowledge to integrate it in their classes. Hence at various institutional levels there is potential for an implementation of ESD professional development opportunities for university educators.

The practicability of the UNECE competence framework for educators for the purpose of this study is being questioned

Reflecting the UNECE competence framework for educators "Learning for the future: Competences in Education for Sustainable Development" (2011), which served as a basis for identifying ESD competences of educators that were being developed through the determined professional development opportunities, the UE4SD partners from the Western European region do not show a consistent perspective. It has turned out to be difficult for the partners to identify the specific competences that aimed to be developed through the professional development opportunities, which they mapped in their national reports. The Belgian and Dutch partners exclusively provided information based on the original framework by UNECE by deleting those competences that did not fit their examples. The Austrian and German partners also used the given framework, but to some extent added further aspects, which were considered to be important for the specific professional development opportunity. Nevertheless these competences were inspired by the UNECE framework as well. Hence the practicability of this framework for mapping competences that shall be acquired through the identified professional development opportunities is being questioned. While the French partner seeks to develop the UNECE document further for the specific requirements for university educators, the Swiss partner questions the use of the framework for higher education and would request an open discussion about sustainability competences in higher education.

Priority needs in ESD professional development of university educators have been identified

As outlined in table 17 following aspects are considered to be priority needs in professional development of university educators related to ESD in the partner countries:

- linking professional development of university educators to quality assurance and accreditation,
- developing professional development opportunities on a professional basis,
- informing university educators about ESD and providing concrete tools and examples,
- reaching common agreement on the required ESD competences university educators should acquire,
- highlighting the necessity to promote transversal approaches, which correspond to integrative and systemic thinking,
- and discussing the scientific basis of ESD competences in higher education, amongst others the UNECE framework for university educators.

Table 17: Priority needs in ESD professional development of university educators

	Priority needs
Austria	- Raising awareness for the importance of ESD competences for university educators. - Information on how to integrate ESD into existing university didactic programs. - Including ESD aspects into quality management and reporting. - New teaching staff at HEIs could be advised to take didactic courses, which focus on ESD.
Belgium	- Familiarize educators with ESD competences and provide them with concrete tools/ information in order to structurally implement SD in the curricula
France	- Clarification on sustainable development goals, values and related skills - UNECE competence framework needs to be put forward as *the* reference document - Highlight the necessity to promote cross-sector or transversal approaches, those that correspond to integrative thinking.

Germany	- A broad discussion among stakeholders in the field of (E)SD in higher education would be of value, where demands, challenges and experiences should be identified. - It would be useful to reach common agreement on the required ESD competences university educators should acquire.
Netherlands	- ESD professional development should be linked to formal systems of quality assurance and accreditation by: - Integrating ESD competence development into the formal teacher professionalization curricula (basic or senior educational qualification, or permanent education), and/or - Making ESD competence development a requirement in the accreditation for the special feature "Sustainable Higher Education" of the national accreditation framework.
Switzerland	- To start such ESD professional development opportunities on a professional basis

5. ANNEX

1. **Acknowledgments**
2. **National reports about the status of ESD within Higher Education at the national level**
3. **National examples of professional development opportunities in ESD for university educators**
4. **List of resources**

ANNEX 1 – Acknowledgements

We would like to acknowledge the efforts and support by all UE4SD project partners, who contributed to the national mappings:

Austria	*National coordinator:* Richard Kromp and Helga Kromp-Kolb, University of Natural Resources and Life Sciences (BOKU) Vienna
	National mapping collaborator: Marlene Mader and Friedrich Zimmermann, University of Graz
Belgium	*National coordinator:* Sara Rymenams and Wim Lambrechts, Leuven University College
France	*National coordinator:* Beatrice Bellini, University of Versailles
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Netherlands	*National Coordinator:* Joop de Kraker and Jos Rikers, Open University of Netherlands
Switzerland	*National Coordinator:* Antonietta Di Giulio, University of Basel

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Austria	Evi Frei (Austrian Federal Ministry of Science, Research and Economy), Martina Fröhlich (University of Natural Resources and Life Sciences Vienna), Renate Hübner (Alpen-Adria-University Klagenfurt), Peter Iwaniewicz (Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management), Fred Luks (Vienna University of Economics and Business), Verena Peer (Modul University Vienna), Franz Rauch (Alpen-Adria-University Klagenfurt), Hannelore Schopfhauser (University of Natural Resources and Life Sciences Vienna)
Belgium	Anne De Cort (KHLeuven), Miranda Geusens (OVAM), Simone Heinen (Ecocampus), Koen Houthoofd (UGent), Katrien Monden (Ecocampus), Riet Van de Velde (UGent)
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Netherlands	Olivier Bello (Wageningen University / DHO); Pieternel Boer (Hobeon / DHO) ; Rietje van Dam-Mieras (Leiden University); Antoine Heideveld (Leren voor Duurzame Ontwikkeling); Karel Mulder (Delft University of Technology); Jan Oosting (Hogeschool Arnhem-Nijmegen/ DUPLHO); Niko Roorda (Avans Hogeschool/ AISHE)
Switzerland	Thomas Bachofner (Rectors' Conference of the Swiss Universities of Applied Sciences, KFH), Stefan Baumann (Swiss Conference of Rectors of Universities of Teacher Education, COHEP & Zurich University of Teacher Education), Franziska Bertschy (School for Teacher Education Bern), Denise Bienz (University of Basel), Christine Bratrich (ETH Sustainability), Thomas Dyllick (University of St. Gallen), Ruth Förster (Swiss academic society for environmental research and ecology), Rahel Frey (Swiss Conference of Cantonal Ministers of Education, EDK), Thomas Hammer (University of Bern), Benedikt Hauser (State Secretariat for Education, Research and Innovation SERI within the Federal Department of Economic Affairs, Education and Research EAER), Thomas Hilty (University of Zurich), Christine Künzli (School for Teacher Education FHNW), Jürg Minsch (minsch sustainability affairs), Christian Pohl (Sustainable Development at Universities Programme), Helen Plüss (University of Bern), Christof Rothenberger (University of Fribourg), Marlyne Sahakian (University of Lausanne), Hansruedi Völkle (University of Fribourg), Sandra Wilhelm (foundation education21), Gabriela Wülser (Sustainable Development at Universities Programme), Anne Zimmermann (University of Bern), Simon Zysset (WWF, educational centre),

ANNEX 2 – National reports about the status of ESD within Higher Education at the national level

This section lists all national mapping reports in alphabetical country order.

AUSTRIA

Lead person completing the template

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Country information

Country	Austria
Number of Higher Education institutions in the country	55 (thereof 22 universities, 21 universities of applied sciences, 12 private universities)
Number of Higher Education students in the country	349.035 (universities: 298.126, universities of applied sciences: 43.593, private universities: 7.316 – as of winter term 2013/2014)
UE4SD region	☐ Northern Europe ☒ Western Europe ☐ Southern Europe ☐ Eastern Europe

The status of ESD within Higher Education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences.

1. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) strategies, policies or legislations, which recognise ESD in Higher Education?** *(If yes, please provide details. Max. 400 words.)*

Austria has both a national Strategy for Sustainable Development as well as a national Strategy for Education for Sustainable Development. The Austrian Strategy for Sustainable Development "A sustainable future for Austria" was acknowledged by the Austrian Federal Government in 2002 and prepared by a working group of 40 people from various institutions (from ministries, provinces, social partners, interest groups and NGOs). The strategy describes 20 key objectives within four fields of action, namely quality of life, Austria as a dynamic business location, living spaces and Austria's

responsibility. The role of education and research is especially highlighted in the field of quality of life.

The Austrian Strategy for Education for Sustainable Development was developed in cooperation between three ministries, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management; the Austrian Federal Ministry for Education, the Arts and Culture; and the Austrian Federal Ministry for Science and Research, and adopted in 2008. The strategy was developed to support the implementation of the UN Decade on Education for Sustainable Development in Austria. The aim is to raise awareness for sustainable development among educators and learners and to network various actors. The strategy focuses on following aspects: social and political education and human rights education, environmental education and health education, global learning, social learning, and gender equity. The development of competences of educators presents one key element of implementation.

According to the Austrian Ministry of Science, Research and Economy Austrian higher education institutions are requested to develop sustainable concepts for the development of society and environment (see University Act of 2002, § 1). The ministry continuously asks the universities to integrate sustainability aspects within their performance agreements.

1. If yes, what ESD processes and approaches do these promote? (*Max. 200 words.*)

Within the Austrian Strategy for Sustainable Development "A sustainable future for Austria" education is especially highlighted in one of four fields of action, namely Quality of Life in Austria. It is stated that '*in addition to the teaching of content, an education for sustainability must also comprise the values of the concept for sustainable development and the skills necessary for its implementation*' (p. 22). In the framework of this field of action, one out of five key objectives addresses "A sustainable lifestyle". The concept of sustainable development shall be integrated into school curricula and further education programs for teachers in an interdisciplinary manner as well as contents and methods for an '*education for sustainability*' shall be defined. Another key objective – "Solutions through education and research" – addresses research, education and lifelong learning. It promotes the integration of sustainability concepts in all levels of the education system.

The Austrian Strategy for Education for Sustainable Development defines objectives, focus areas (see 1. above) and elements for implementation (see 1.2 below), responsibilities and the implementation of ESD in formal, non-formal and informal education.

2. If yes, do these documents refer to ESD professional development for university educators (as like asking for skills and capabilities)? (*If yes, please provide details. Max. 200 words.*)

The Austrian Strategy for Education for Sustainable Development defines the development of competences for educators (in general, no focus on university educators) as one of six key elements for implementing the ESD strategy. The other elements are embedding ESD in the educational system, partnerships and networks, research and innovation, scenario development and monitoring and evaluation. The strategy does not provide information on the kind of ESD competences it refers to and how they shall be promoted.

2. Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) initiatives (projects, programmes, etc.) on ESD professional development for university educators? *(If yes, please provide details. Max. 400 words.)*

There are several initiatives that address sustainability in higher education, but none that explicitly focuses on ESD professional development for university educators. What shall be mentioned is the Austrian University Conference, who aims to foster quality in HE teaching and hence has established a working group, which will in a first step define "quality in teaching", identify challenges and good practices and develop guidelines for implementing and strengthening quality in HE teaching. ESD is not explicitly mentioned.

Another successful initiative presents the Sustainability Award by the Federal Ministry of Science, Research and Economy and the Federal Ministry of Agriculture, Forestry, Environment and Water Management. It is a national initiative fostering sustainability processes at HEIs with the mission to integrate SD as a general concept. The award is granted every two years (2008, 2010, 2012, 2014) and different projects related to sustainability can be submitted.

Examples of awarded projects somehow related to ESD:
- 2008: **Faculty for interdisciplinary research and further education**/ Alpe Adria University Klagenfurt (*see 4. HEI Institutions for more details*)
- 2008: **International Joint Master programme in Sustainable Development** / University of Graz
- 2008: **Sustainability Strategy** / University of Natural Resources and Life Sciences Vienna (*see 4. HEI Institutions, Alliance of Sustainable Universities in Austria, for more details*)
- 2010: **Mentoring programme for women** / University of Vienna
- 2010: **Regional Centre of Expertise** / University of Graz (*see 4. HEI Institutions for more details*)
- 2010: **Sustainability4U** / University of Graz, Graz University of Technology, Medical University of Graz, University of Music and Performing Arts Graz (*see 4. HEI Institutions for more details*)
- 2012: **Doctoral School Sustainable Development** / University of Natural Resources and Life Sciences Vienna (*see 4. HEI Institutions for more details*)
- 2012: **12 ECTS Elective course module Sustainable Development** / Alpe Adria University Klagenfurt (*see 4. HEI Institutions for more details*)
- 2014: **Sustainicum Collection** (Sustainability in Teaching) / University of Natural Resources and Life Sciences Vienna, University of Graz, Technical University of Graz
   - 2014: **International Joint-Degree in „Sustainability in Agriculture, Food production and Food technology in the Danube Region"** / University of Natural Resources and Life Sciences Vienna
   - 2014: **Course module "Future-oriented economics"** / Vienna University of Economics and Business

(http://www.umweltbildung.at/initiativen/sustainability-award.html)

3. Do Higher Education institutions have strategic plans or guidelines to promote ESD? *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☒ Several
☐ Many
☐ All

9 out of 22 Austrian universities are members of the **Alliance of Sustainable Universities in Austria**. One task was the development of a **guidance book for the development of sustainability strategies for universities** with measures in the field of higher education, (Handbuch Nachhaltigkeitskonzept, p.11, http://www.openscience4sustainability.at/wp-content/uploads/2013/11/Handbuch_Nachhaltigkeitskonzept_AnU.pdf).

All members agreed on developing **sustainability strategies** and implementing related measures into their performance agreements with the Federal Ministry of Science, Research and Economy. This process will be completed in 2015. Up to now, all members have implemented measures related to SD, which can be seen as an important milestone in the process of ESD implementation. Only 2 out of the 13 Austrian Universities without Alliance membership mention at least one measure related to SD or ESD promotion in their strategic documents. Nearly all Austrian Universities committed to implement and realize measures relating to lifelong learning and continuing education, but without direct reference to ESD.

None of the 21 Austrian Universities of Applied Sciences have explicit strategic plans to promote ESD. Nevertheless several of them mention sustainability related aspects within their vision or mission statements, such as FH Technikum Vienna, IMC FH Krems, FH Salzburg, FH Joanneum, FH Vorarlberg, FH Campus 02, MCI Management Center Innsbruck and FHG Tyrol. Seven Universities of Applied Sciences refer to values they like to promote, such as transparency, respect, interculturality, diversity, equity, a holistic and humanistic perspective. Five institutions especially mention their social responsibility, whereby three perform their responsibility in the region. Two institutions mention their efforts in environmental management and a sustainable use of resources. Five Universities of Applied Sciences commit to teaching and learning approaches, whereby three want to promote an academic culture of independent, active, self-directed and reflective learning, and two mention that they represent quality in teaching and want to foster the skills of their employees. Nine institutions do not mention sustainability related aspects within their vision or mission statements at all.

Nonetheless it can be stated that many HE institutions in Austria offer sustainability related study programs and courses or carry out research in the field of sustainability.

4. Do Higher Education institutions have initiatives (projects, programmes, etc.) to support the professional development of university educators in ESD? *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☒ Few, **but there are a lot of opportunities to implement these opportunities**
☐ Several
☐ Many
☐ All

The outcome of the search for ESD related initiatives was very little concerning initiatives that directly support professional development of University educators in ESD. But only at the first glance: In general, almost exclusively, the 9 member Universities of the **Alliance of Sustainable Universities in Austria** run all sorts of initiatives that pick SD out as a central theme. All members committed to develop a sustainability strategy within the period 2013-2015 and thus launched many different initiatives. These can be seen as an impact – sometimes additionally - on the higher education teacher. Most initiatives do not mainly support professional development of University educators in ESD, but lead to an increase of teachers who are engaged in ESD. Almost no non-member University runs any initiatives supporting ESD-training. The Alliance's virtual home is the OpenScience4Sustainability platform.

The only Austrian University initiative for University educators with focus on ESD is the **University Course "BINE - Education for Sustainable Development – Innovations in Teacher Education"** at the Alpen-Adria-University Klagenfurt. This initiative is followed by some promising initiatives, that could be modified without effort in order to serve as direct support for professional development of University educators in ESD: The **Centre for Teaching Competence** and the **Inter-University Didactic course** (both at University of Graz) and the **Sustainicum Collection** (an online resource platform for sustainability in HE). The Alpe Adria University Klagenfurt is additionally working on concepts how ESD can be integrated into teacher education. The Vienna University of Technology offers summer courses on "**Learning for a sustainable future**" for school children and teachers, which at the same time allows researchers to experience innovative ESD teaching formats.

Furthermore, there are some University initiatives with orientation on societal issues of public goods and inter- and intradisciplinary approaches, that can be seen as "network router", such as the **IFF Faculty for interdisciplinary research and further education** (Alpe Adria University Klagenfurt), the **Competence Center for Sustainability** (Vienna University of Economics and Business), the **Regional Centres of Expertise** (University of Graz and Vienna University of Economics and Business) and the **Center for Global Change and Sustainability** (University of Natural Resources and Life Sciences Vienna). Some initiatives offer lifelong learning, such as **UNI for LIFE** (University of Graz). Working groups for University educators for interuniversity exchange on ESD related topics make the list complete.

The outcome of the search for ESD related initiatives at Austrian **Universities of Applied Sciences** shows that none offers professional development initiatives that focus on ESD. At 13 out of 21 Universities of Applied Sciences no information about didactical further training is provided. Eight institutions offer didactic seminars for their educators – at four institutions they are not related to ESD; and four institutions (FH Salzburg, FH Technikum Vienna, FH bfi Vienna and FH Vorarlberg) offer

seminars that address ESD related aspects, but are not labelled as ESD. These include seminars and coaching programs about interactive teaching methods, problem based learning, self-directed learning, multicultural classroom settings and innovative assessment.

Concerning **private universities** – referred to the University website, the MODUL University Vienna (taken as an example for private Universities) follows an integrated sustainability approach, tries to balance the economic, the social and the environmental dimension of sustainable development, and sees environmental and social sustainability as a key principle. The University hosts up to 500 students. It runs a **sustainability committee** in order to promote various issues that have to do with sustainability, such as teaching of sustainability related topics. At the **Research workshop** University staff meets to exchange current developments and outcomes (e.g. topics on ESD in HEI) at an interuniversity level. Therefore it might be easy to implement appropriate initiatives here.

The authors are not aware of initiatives in private Universities that serve as direct support for professional development of University educators in ESD (due to the limitation of resources within the project UE4SD it was not possible to inspect all private Universities).

5. Does ESD form part of the quality assurance and accreditation processes of Higher Education institutions?[1] *(If yes, please provide details. Max. 400 words.)*

Austrian Higher Education Institutions do not include ESD into their quality assurance systems, nevertheless some institutions refer to sustainability aspects within their quality assurance. For instance some universities mention sustainability and their social responsibility within their performance agreements with the Ministry of Science, Research and Economy and hence also need to report about it.

For the Universities of Applied Sciences ESD and sustainability do not play a role within their quality management. Nonetheless two institutions (FH Campus Vienna and IMC FH Krems) mention that they carry out environmental management programs ("Ecoprofit" and ISO 14001 certified), IMC FH Krems is furthermore member of UN Global Compact and Principles for Responsible Management Education, and one institution (FH Carinthia) fosters the integration of societal objectives into their quality management.

6. Are there any Higher Education networks, partnerships or main drivers (public, private, NGOs) that support the professional development of university educators in ESD in your country? *(If yes, please provide details. Please note that networks at the local but also global level might be relevant. Max. 400 words.)*

There are several – national and international – sustainability networks in Austria at the HE level (see below), but they do not focus on the professional development in ESD of university educators:

- **Alliance of Sustainable Universities in Austria**: Austrian alliance of Universities with focus on interuniversity activities, exchange of experiences and exploitation of synergies - amongst others - in the field of ESD; the alliance members agreed on working out sustainability strategies

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[1] In countries where there is a formal accreditation process of staff, please indicate if ESD is taken into consideration in this process and *how*.

till 2014 / University of Natural Resources and Life Sciences Vienna, University of Graz, Graz University of Technology, Medical University of Graz, University of Music and Performing Arts Graz, Vienna University of Economics and Business, Alpen-Adria-Universität Klagenfurt, University of Salzburg, University of Innsbruck (http://www.openscience4sustainability.at/lehre/ueber-uns/).

- **Copernicus Alliance**: European network on Higher Education for Sustainable Development, where seven Austrian universities are members (http://www.copernicus-alliance.org/).
- **Austrian Agency for Education for Sustainable Development** ("Dekadenbüro") serves as coordinator for implementing the "UN Decade of Education for Sustainable Development 2005 – 2014" in Austria; e.g. it also promotes the UNESCO programme "**Teaching and Learning for a Sustainable Future**" (http://www.bildungsdekade.at/).
- **Environmental Education Forum ("Forum Umweltbildung")**: e.g. they organise the Sustainability Award for the Federal Ministry of Science, Research and Economy and the Federal Ministry of Agriculture, Forestry, Environment and Water Management, which aims at raising awareness and promoting sustainability in HE. The award is granted in eight different categories, amongst others in teaching & curricula, but does not address professional development. (http://www.umweltbildung.at/).
- **Regional Centres of Expertise on ESD Graz-Styria and Vienna**: regional multi-stakeholder networks on different ESD activities (http://regional-centre-of-expertise.uni-graz.at/; http://www.rce-vienna.at/).
- **Federal Ministry of Science, Research and Economy**: Platform „OpenScience4Sustainability" in cooperation with the Alliance of Sustainable Universities in Austria, which aims to promote sustainability research and collaboration between academia and society; „Sustainability Award" in cooperation with the Federal Ministry of Agriculture, Forestry, Environment and Water Management (http://wissenschaft.bmwfw.gv.at/bmwfw/wissenschaft-hochschulen/universitaeten/nachhaltigkeit/; http://www.openscience4sustainability.at/)

7. Are there any higher education initiatives or projects developed in response to the UNECE ESD competences[2]? *(If yes, please provide details. Max. 400 words.)*

The authors are not aware of initiatives or projects in Austria that have been developed in response to the UNECE ESD competences.

Austria adopted the UNECE strategy on ESD in 2005 and released the first report in 2006, where it is also stated that Austria can be seen as a pioneer in teacher training on ESD, but lacks behind when it comes to ESD competences of university educators.

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[2] UNECE (2011) Learning for the future: Competences in Education for Sustainable Development, ECE/CEP/AC.13/2011/6;
http://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competences%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

	BELGIUM

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Country information

Country	Belgium – Flanders
Number of Higher Education institutions in the country	26: 19 university colleges + 7 universities, gathered in 5 university associations Source: http://www.ond.vlaanderen.be/hogeronderwijs/nuttigeAdressen/
Number of Higher Education students in the country	229.923 (number of students enrolled on 31.10.2013)
UE4SD region	☐ Northern Europe ☒ Western Europe ☐ Southern Europe ☐ Eastern Europe

The status of ESD within Higher Education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences.

1. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) strategies, policies or legislations, which recognise ESD in Higher Education?** *(If yes, please provide details. Max. 400 words.)*

In Belgium, one must distinguish between the national, federal level, on the one hand and the level of the communities and regions on the other. Education, and therefore also ESD, is a responsibility of the communities. In this mapping exercise, we will focus on higher education in Flanders, and not in the French and German Communities, since they have separate policies.

Both at the national (federal) and Flemish level, various initiatives have been taken to encourage the integration of ESD in higher education. At the federal level, ESD is referred to in the *Federal Plan for Sustainable Development* (1.). In Flanders, ESD is a topic in the *Flemish Strategy for Sustainable Development* (2.), the *Memorandum of the Education Department 2009-2014* (3.), the *ESD-platform* and the *Flemish Implementation Plan for ESD* (4.).

1. *Federal Plan for Sustainable Development (Federaal Plan inzake Duurzame Ontwikkeling – FPSD)*

At the federal level, Belgium endorses the Plan of Johannesburg and the UNECE strategy. More specifically, the *Federal Plan for Sustainable Development (FPSD)* for the term 2004-2008 stresses the role the Johannesburg Plan assigns to education in the pursuit of SD, the necessity to reinforce the institutional framework for SD and the importance of creating partnerships with different actors and stakeholders (governments, private entities and/or non-governmental and governmental organizations). It also mentions the importance of "promoting the Decade of Education for Sustainable Development" (UN-resolution 58/219 from 23 December 2003).

In the FPSD for the term 2009-2012, the role of education is less explicitly stressed. However, the plan states that "everyone has to engage in SD": "the transition to be set up will only be effective if they engage all social partners around common objectives. Both the public and private partners (companies, associations, citizens, etc.) have a role to play in this process." (FPSD 2009).

It should be noticed that for the current term, no FDSD has been published (yet), which raises questions about attention paid to EDS by the current federal government.

2. *Flemish Strategy for Sustainable Development (Vlaamse Strategie voor Duurzame Ontwikkeling – FSSD)*

In 2007, the Flemish Government (with Minister-President Peeters) published for the first time its *Flemish Strategy for Sustainable Development* (FSSD) in which Flanders explains its vision on SD as well as the objectives related to this topic in the short, medium and long term. ESD was listed as one of the so-called "operational projects" of Flanders (besides, among others, sustainable building and living in Flanders, Corporate Social Responsibility, sustainable agriculture, etc.). This meant that for four years, ESD was the subject of concrete actions and measures to realise the overall objectives of the FSSD and to concretise the commitment of Flanders towards the UNECE strategy.

Specifically the following challenges were drawn:
- to position ESD towards other educational topics/forms of education;
- to create powerful learning environments by seeking accordance and cooperation at the local level ;
- to encourage synergy between initiatives launched by the government and those from different actors from the profit and non-profit sector;
- to ensure a transparent funding system for ESD initiatives without a loss of funding for the sectorial initiatives.

In the long term, this operational project worked towards the following aim: "to develop ESD and to introduce it in the formal educational system, in all relevant courses, and in not-formal and informal learning settings in order to increase the knowledge and the capacity of acting in favor of a healthy and productive life in harmony with nature and with respect for social values, gender equality and cultural diversity" (Flemish ESD implementation plan)

In the FSSD for 2010-2014 (also with Minister-President Peeters), ESD is no longer the subject of a so-called "operational project", but it is mainly considered as a key element in the development of a "holistic knowledge and learning system", one of the twelve dimensions through which SD should be pursued.

3. Memorandum of the Education Department 2009-2014 (Beleidsnota Onderwijs 2009-2014)

The Memorandum of 2004 (Frank Vandenbroucke acting as minister) mentioned very explicitly the importance of the UNECE strategy and its implementation in Flanders. Various concrete initiatives were taken in collaboration with the Council for Environment and Nature in Flanders (Mina-raad), the Flemish Educational Council (VLOR) and the Flemish Department of Environment, Nature and Energy (see 4.).

The current Minister for Education Pascal Smet lists ESD as one of the "operational objectives" for education in Flanders. More specifically, the Memorandum for 2009-2014 states that:

"(t)he UN declared the period 2005-2014 the Decade of Education for Sustainable Development (ESD). In that order, during the previous term, the Flemish Implementation Plan for ESD [see 4.] was launched. The Education Department participates in the ESD-platform [see 4.], where concrete steps are taken to execute the plan.

I want that the study group Sustainable Development that draws the Flemish Strategy for Sustainable Development, pays sufficient attention to the support of schools and teachers in compulsory education [i.e. primary and secondary school] and higher education in handling topics in the field of ESD. That's why I will optimize the collaboration with my colleague responsible for Environment and the Minister-President." (Memorandum 2009-2014)

4. ESD-platform and Flemish Implementation Plan for ESD

In order to guarantee the translation and implementation of the UNECE strategy, an *ESD platform* was created in 2004. This platform brings together stakeholders from ministries, non-governmental organisations, (higher) education institutions, etc. It has been under the authority of the Flemish Government, Department of Environment, Nature and Energy. Although it has a broad perspective on ESD (thus not only higher education), it provides guidelines for higher education institutions as well, e.g. a guidebook for ESD with guidelines and good practices [see also question 2 of the template].

In the course of 2008, the ESD-platform developed the *Flemish Implementation Plan for ESD*. This plan is conceived as a "long-range plan for the implementation of ESD in Flanders", and this "in both formal as non-formal and informal learning situations". The plan is based on the UNECE-strategy, which the plan tries to transfer to the Flemish context and to translate into concrete actions in the field.

The plan contains a section dedicated to "ESD in higher education", as well as a chapter that stresses the importance to "equip teachers and educators with the competences to integrate SD in their educational activities" (Flemish Implementation Plan for ESD).

The ESD-platform has the responsibility to coordinate and to supervise the execution of the Flemish Implementation Plan for ESD. The expertise of the platform will also be used to operationalize further actions undertaken in the context of the plan.

For more information, see: http://www.lne.be/themas/natuur-en-milieueducatie/algemeen/edo/edo-overleg

5. **ECOCAMPUS**

In 2007, the Flemish Government, Department of Environment, Nature and Energy, has started the *Ecocampus* initiative, which focused first on environmental management in higher education, by developing guidelines and a manual. In a second phase of the *Ecocampus* initiative, the focus was set on "Sustainable Higher Education", by providing general guidelines, manuals and instruments to integrate sustainability within higher education, e.g. a policy framework, a policy reflection instrument, guidelines for competences for sustainable development. (see also other questions discussed further on in this template)

6. *Competency Profiles developed by the Flemish Interuniversity Council (VLIR) and the Council for Flemish University Colleges (VLHORA)*

The Flemish Interuniversity Council (VLIR) and the Council for Flemish University Colleges (VLHORA) are consultative bodies that describe, among other things, the competency profiles for the different study programs in higher education. Some of them already include competencies in the field of ESD. In the future, higher education aims at integrating SD more explicitly in the competency profiles of all study programs.

It should be noticed that the competency profiles implicate a strong commitment for universities and university colleges: all institutions in higher education have to proof that they are able to realise the objectives described in the competency profiles. This information is also taken into account during the accreditation process of the different institutions (see also question 5).

Remark:

Although in Flanders a lot of initiatives are launched in the context of ESD in general, and of ESD in higher education in specific, we can conclude that they mainly fall within the working field of the Department of Environment, Nature and Energy. The Department of Education seems to be less present in this domain. Furthermore, initiatives and actions often stay at a departmental level, and are rarely translated into real policies at a higher level. Finally, there is also a lack of funding to launch long-term initiatives or to continue existing actions (e.g. the operational projects described in the FSSD).

1.1. If yes, what ESD processes and approaches do these promote? (*Max. 200 words.)*

Most of the initiatives and policies discussed in the previous sections endorse the UNECE strategy (2005), thus focusing on capacity building. Policy documents both at federal and Flemish level seem to mention ESD in rather general terms, failing to describe or promote actual ESD processes and approaches.

Two practical initiatives at the Flemish level, the *ESD platform* and the *Ecocampus* Initiative do promote actual ESD processes and approaches. The ESD platform provides guidelines and good practices on ESD in formal, non-formal and informal learning environments.

Ecocampus promotes several processes and approaches, specifically for higher education, i.e. policy development (through guidelines, theoretical frameworks, reflection instruments); competences for SD (through guidelines); learning networks (e.g. for social work, teacher training, economic study programs).

However, both initiatives are situated at the level of practical translation of ESD processes in individual organisations with an educational focus, and not (thoroughly) at integrating ESD at the federal or Flemish policy level. The result is that ESD still is the exception (organisations interested in the topic are supported) rather than the norm (there's no policy that requires all organisations to integrate ESD).

1.2. If yes, do these documents refer to ESD professional development for university educators (as like asking for skills and capabilities)? *(If yes, please provide details. Max. 200 words.)*

Within the **ESD-platform**, it is addressed in general terms (not specifically for university educators, but for educators in all settings (formal, informal, non-formal).

The **Flemish Implementation Plan for ESD** contains a section dedicated to the competencies that educators need to be equipped with to integrate SD in their educational activities.

> "ESD is more than simple transfer of knowledge. The great insecurity and complexity of sustainability issues require a set of competencies teachers and educators are sometimes still not so familiar with. In ESD five competency domains need to be worked on: knowledge (factual knowledge, subject specific knowledge and action driven knowledge."

It also stresses the need to develop a vision:

> "SD, as a process, is a path full of insecurities. Sustainability issues are complex and are highly unpredictable, they have long-term effects and effects on a system level. That's why it's important to gather people from different contexts to engage a broad debate so that the individual vision on SD can evolve."

Within **ECOCAMPUS**: skills and capabilities are referred to within the context of professionalization of university educators. The offered documents, guidelines, workshops etc. focus on ESD professionalization. (see question 2).

2. Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) initiatives (projects, programmes, etc.) on ESD professional development for university educators? *(If yes, please provide details. Max. 400 words.)*

At the Flemish level, **Ecocampus** coordinates most of the initiatives on ESD professional development for university educators:

- **conferences and workshops***: e.g. conference on system thinking, Policy Seminar, workshop "Ecodesign in higher education", symposium "Sustainable Higher Education – beyond knowledge", conference on "Technology, education and sustainability", etc.
- **Ecocampus thematic learning networks for university educators**. Three networks are active: (1) Social Work, (2) Teacher Training, (3) Economics. These networks are based on the exchange of knowledge and expertise in the field of ESD. Each network meets several times a year and can count on the participation of about 20 educators.
- **Science cafés on Climate Change**: conferences and workshops on climate change in a rather informal setting.

- **Inspiration guide and Framework SD in Higher Education**: publication of the results of a project "Sustainable Higher Education – Beyond Knowledge", with interviews, examples, best practices, and a framework for SD in higher education: Waas, T., Hugé, J., Ceulemans, K., Lambrechts, W., Vandenabeele, J., Lozano, R. and Wright, T. (2012). Sustainable Higher Education. Understanding and Moving Forward. Flemish Government – Environment, Nature and Energy Department, Brussels.
- **guideline SD as a compass for the development of learning outcomes:** guideline that helps educators to integrate SD in the competency profiles of their study programs .
- **ESD competency profile for Teacher Training**: guiding competencies for future teachers who integrate ESD in their teaching practice. Institutions can use these competencies to determine the specific learning outcomes for their teacher training program.
- **Debate cafés for teachers:** informal moments organised to stimulate the debate on ESD-related topics, to exchange best practices and to brainstorm on steps for further integration of SD in the own institution and class practice.
- **reflection instrument on SD:** a guidebook for ESD with guidelines and good practices (also available in English: http://www.lne.be/themas/natuur-en-milieueducatie/algemeen/edo/docs/Flag_totaal_klein_E.pdf/view)

- In the (near) future, *Ecocampus* wants to address more specifically people responsible for professionalisation in higher education. The intention is to elaborate a professionalisation module that universities and university colleges can use to support the professional development of their educators in ESD.

Other initiatives:

- **Toerisme Vlaanderen (Flanders Tourism):** Thematic learning network Sustainable and innovative tourism.
- **Toolkit Ecodesign in Higher Education:** practical guide to integrate ecodesign in the different programs of higher education. (see Part B).
- **ALERT-net:** digital platform created to promote ESD in formal and non-formal settings and to facilitate the integration of ESD in organisations. Although the platform doesn't address higher education in specific, it can be used by universities and university colleges too. Project in progress.
- At the provincial level, **project funding** is provided for individual projects, however with a general focus on sustainability (and not specifically for university educators). For example, the MARKEDO project running at KHLeuven is funded by the province of Flemish Brabant.
- The **National Lottery** provides grants for projects in the field of ESD. For 2014, the following project was approved: *ECHO for a Sustainable Future: Transition towards Sustainable Higher Education* (KHLeuven).

3. **Do Higher Education institutions have strategic plans or guidelines to promote ESD?** *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☒ Several
☐ Many
☐ All

Some institutions (Universities of Ghent, Antwerp, Leuven and Brussels, association of university colleges of Antwerp) signed the Copernicus Campus Charter.

From 2015 on, ESD will form part of the quality assurance and accreditation process of Higher Education institutions. Therefore, more and more institutions of higher education undertake actions to integrate ESD in their daily practice. A lot of institutions have integrated ESD in their mission statement, but only few of them provide specific strategic plans and guidelines to promote ESD.

Examples of policy documents and strategic plans to promote ESD:
- **Leuven University College (KHLeuven): policy plan for sustainable development (2008-2013):** this policy plan was developed following a bottom-up approach, with input from staff members from each department and study program of KHLeuven. It resulted in a plan with six strategic goals: (1) Policy; (2) Communication; (3) Relations with stakeholders; (4) Education; (5) Research and outreach; (6) Campus operations. These strategic goal are defined, described and divided into thirty operational goals and seventy actions and indicators (Source: Lambrechts and Verhulst, 2014 in press).
- **University of Ghent (UGent): memorandum:** http://www.ugent.be/nl/univgent/waarvoor-staat-ugent/verklaringen/duurzaamheidsvisie/transitie
- **HUB: Educational Development Plan (2008-2013) :** stresses some concrete actions that can be undertaken by the different faculties and departments + (annual) sustainability reports

4. **Do Higher Education institutions have initiatives (projects, programmes, etc.) to support the professional development of university educators in ESD?** *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☒ Several
☐ Many
☐ All

In general, we observe that initiatives on ESD often concern students in particular (e.g. by offering a specific course on SD in the curriculum), or students and staff in general (e.g. actions related to energy saving and treatment of waste on the campus). Universities also tend to have an (interdisciplinary) research department related to SD.

However, some examples of individual projects and programs to support the professional development of university educators in ESD can be provided as well:

1. **Projects**
   - **Leuven University College (KHLeuven): project "Sustainable Development and Higher Education (2005-2008, budget: 300.000 euro).** This project focused on the integration of sustainable development from the perspective of single higher education institutions. The project aimed at defining a general sustainability implementation model with guiding principles for education, research, outreach and operations. Furthermore integration strategies applicable in higher education were defined, focusing on assessment instruments (e.g. AISHE), indicators and competences.
   - **Leuven University College (KHLeuven): project "Toolkit ESD-Competences for Marketing Teachers" (Markedo, 2013-2014, budget 25.000 euro).** This project aims to develop a toolkit for teachers in marketing programs in higher education, specifically focusing on acquiring competences essential in education for sustainable development (ESD-competences). The project starts with a practical definition of ESD competences within marketing study programs, and provides practical tools and instruments to integrate into the curriculum. The toolkit provides teachers with a variety of possibilities to work on competences for sustainable development within their course, module or study program. More information: http://sustainablehighereducation.com/2014/03/29/markedo/
   - **Leuven University College (KHLeuven): project "Echo for a sustainable future: transition towards sustainable higher education" (2014-2016, budget 100.000 euro).** This project wants to foster the transition towards sustainable higher education, with the focus on two specific themes: (1) prepare the students for their future role in the sustainability transition, by integrating competences for sustainable development; (2) 'walk our talk' as a higher education institution, by testing and applying instruments for sustainable higher education (e.g. assessment instruments).

2. **Conferences and workshops**

A lot of these conferences and workshops are offered by Ecocampus and are open for educators of all institutions in higher education in Flanders. Some institutions also organise conferences on their campuses, for their own staff, e.g.:

   - Artevelde Hogeschool Gent: Professionalisation Day for educators (and other staff members), focusing on sustainable development, including competences for SD, sustainability assessment, policy development, etc.
   - PXL: conference on systems thinking (also for teachers at primary and secondary school)
   - VUB: Crosstalks: "a unique kind of academic and corporate networking (…). Working bottom-up and interdisciplinary, CROSSTALKS wants to create a new dynamic of knowledge exchange through thematic encounters, beyond specific disciplines and with the active participation of key players from all levels of society. An open and collaborative approach is crucial in every CROSSTALKS initiative, ranging from small scale professional workshops to big public events." (http://crosstalks.vub.ac.be/about)
   - KHLeuven: within the period of 2004-2014, several staff development initiatives were organised, often within the framework of projects, and with a focus on sustainability topics and/or competence development.

3. **Publications**
   - One specific publication on the topic of sustainable higher education is available in Dutch: Lambrechts, W., Van den Haute, H. en Vanhoren, I. (2009). Duurzaam hoger onderwijs. Appel voor verantwoord onderrichten, onderzoeken en ondernemen [Sustainable Higher Education. Appeal for responsible education, research and operations]. LannooCampus, Leuven. It is, until now, the only publication in Dutch about the topic. Other papers and articles have been published about the topic in international journals and conferences:
   - Lambrechts, W. and Van Liedekerke, L. (2014, in press). Using ecological footprint analysis in higher education: campus operations, policy development and educational purposes. Ecological Indicators, in press.
   - Lambrechts, W., Mulà, I., Ceulemans, K., Molderez, I. and Gaeremynck, V. (2013). The integration of competences for sustainable development in higher education: an analysis of bachelor programs in management, Journal of Cleaner Production, 48 (2013), pp.65-73.
   - Lambrechts, W. (2013). The role of research competences in acquiring competences for sustainable development: an integrated view to support and strengthen the transition towards education for sustainable development. ERSCP-EMSU 2013, Istanbul, Turkey.
   - Waas, T., Hugé, J., Ceulemans, K., Lambrechts, W., Vandenabeele, J., Lozano, R. and Wright, T. (2012). Sustainable Higher Education. Understanding and Moving Forward. Flemish Government – Environment, Nature and Energy Department, Brussels.
   - Lambrechts, W., Mulà, I. and Van den Haute, H. (2010). The integration of sustainability in competence based higher education. Using competences as a starting point to achieve sustainable higher education. ERSCP-EMSU, Delft.
   - Hogeschool-Universiteit Brussel (HUB): Teachers manual for Corporate Social Responsibility (Het Ivoor). See: http://www.sciencedirect.com/science/article/pii/S0959652609003035
   - Lambrechts, W., Van den Haute, H. and Vanhoren, I. (2008). Making progress towards sustainable higher education: design of an implementation model with guiding principles. Businet Annual Conference (Palma de Majorca, 12-15 November 2008).

4. **Presence of sustainability coordinator**

Some institutions created a function for sustainability coordinator. His or her mission consists in facilitating SD in the institution. The coordinator can be responsible for the whole university or university college, or for one faculty or department in specific. He or she can be employed on a fulltime basis, but more often, one of the (teaching or research) staff members is given a certain percentage of its time that can be used to promote ESD in the department. e.g.:
   - KHLeuven had a general sustainability coordinator (responsible for all departments) between 2007-2011. From 2011 onwards, sustainability coordinators were appointed at the departmental level, however only the department of business studies has taken this possibility by appointing a part-time staff member.
   - HUB has a sustainability coordinator at the level of the Faculty of Economics.
   - UGent (General Services, 7 employees)
   - VIVES (part-time)

5. **Program scan / audit**

Some institutions made a scan or audit of (one of) their programs (or plan to do so in the near future) in order to know to which extent ESD is already integrated in the studies they offer, what the attitude

of their staff en students is towards ESD, and how ESD can be further implemented in the program. Generally, this process also implicates some workshops for the teachers and other staff members. e.g.

- KHLeuven: has done an audit with the Auditing Instrument for Sustainability in Higher Education (AISHE) for all its study programs, resulting in a 1-star certificate for sustainable higher education for all programs in 2007 and a 2-star certificate for the economic study programs in 2010 (see Lambrechts and Ceulemans, 2013). Furthermore, the department of business studies has done several curriculum screenings, e.g. in 2003 and in 2013, both within the framework of project funding.
- HUB: has done AISHE-audits for the study programs on environmental management and business engineering, resulting in a 2-star certificate for both programs (see Lambrechts and Ceulemans, 2013).
- Thomas More Mechelen: program of Tourism and Hotel Management
- UGent: for the whole university, starting this summer

6. SD in the competency profiles of some study programs

For some programs, the competency profiles already mention very explicitly some SD competences. In this context, educators are supposed to promote actively ESD in their courses and to evaluate the learning outcomes for their students. E.g.

- KHLeuven: KHLeuven did a screening of competences of all study programs, to discover where and to which extent competences for SD were integrated (see Lambrechts et al., 2010, Lambrechts et al., 2013). KHLeuven also has a general competence framework for its staff, which was also screened to see where competences for SD are available (see Lambrechts et al., 2010).
- HUB collaborated with KHLeuven to screen their competences for the business management programs (see Lambrechts et al., 2013).
- HUB: Health Care
- UHasselt: Lifelong Employability Skills (http://sturauhasselt.be/onderwijs/onderwijs)

5. Does ESD form part of the quality assurance and accreditation processes of Higher Education institutions?[3] *(If yes, please provide details. Max. 400 words.)*

ESD is not (yet) a compulsory part of quality assurance and accreditation. However, individual higher education institutions may choose to include the topic in their quality assurance system and in their reporting towards the accreditation organisation. Based on this reporting, they may request and receive a special "quality label" of sustainability.

To date, only two HEIs have integrated ESD in quality assurance, using the Auditing Instrument for Sustainability in Higher Education (AISHE): Leuven University College (KHLeuven) and Hogeschool-Universiteit Brussel (HUB). Their experiences with the instrument are reported in the following publication: http://www.springer.com/energy/energy+efficiency/book/978-3-319-02374-8.

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[3] In countries where there is a formal accreditation process of staff, please indicate if ESD is taken into consideration in this process and *how*.

Nevertheless, from 2015 on, ESD will form part of the quality assurance and accreditation process of Higher Education institutions. This means their efforts with regard to ESD will be taken into account during the institutions review: http://www.nvao.net/nieuw_accreditatiestelsel_vlaanderen.

6. Are there any Higher Education networks, partnerships or main drivers (public, private, NGOs) that support the professional development of university educators in ESD in your country? *(If yes, please provide details. Please note that networks at the local but also global level might be relevant. Max. 400 words.)*

ECOCAMPUS can be seen as a driver or facilitator at the Flemish level. See: http://www.lne.be/doelgroepen/onderwijs/ecocampus.

7. Are there any higher education initiatives or projects developed in response to the UNECE ESD competences[4]? *(If yes, please provide details. Max. 400 words.)*

ECOCAMPUS has two initiatives:

- ESD competences within teacher training: http://www.lne.be/doelgroepen/onderwijs/ecocampus/kennis-en-instrumentenhub/edo-competentieprofiel
- LEIDRAAD: General guidelines to integrate competences in study programs profiles.

KHLeuven has performed several projects focusing on competences and staff development:

- **Leuven University College (KHLeuven): project "Sustainable Development and Higher Education (2005-2008, budget: 300.000 euro).** This project focused on the integration of sustainable development from the perspective of single higher education institutions. The project aimed at defining a general sustainability implementation model with guiding principles for education, research, outreach and operations. Furthermore integration strategies applicable in higher education were defined, focusing on assessment instruments (e.g. AISHE), indicators and competences.
- **Leuven University College (KHLeuven): project "Toolkit ESD-Competences for Marketing Teachers" (Markedo, 2013-2014, budget 25.000 euro).** This project aims to develop a toolkit for teachers in marketing programs in higher education, specifically focusing on acquiring competences essential in education for sustainable development (ESD-competences). The project starts with a practical definition of ESD competences within marketing study programs, and provides practical tools and instruments to integrate into the curriculum. The toolkit provides teachers with a variety of possibilities to work on competences for sustainable development within their course, module or study program.
- **Leuven University College (KHLeuven): project "Echo for a sustainable future: transition towards sustainable higher education" (2014-2016, budget 100.000 euro).** This project wants to foster the transition towards sustainable higher education, with the focus on two

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[4] UNECE (2011) Learning for the future: Competences in Education for Sustainable Development, ECE/CEP/AC.13/2011/6; http://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competences%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

specific themes: (1) prepare the students for their future role in the sustainability transition, by integrating competences for sustainable development; (2) 'walk our talk' as a higher education institution, by testing and applying instruments for sustainable higher education (e.g. assessment instruments).

FRANCE

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Country information

Country	FRANCE
Number of Higher Education institutions in the country	320
Number of Higher Education students in the country	2 387 000
UE4SD region	☒ Northern Europe ☐ Western Europe ☐ Southern Europe ☐ Eastern Europe

The status of ESD within Higher Education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences.

1. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) strategies, policies or legislations, which recognise ESD in Higher Education?** *(If yes, please provide details. Max. 400 words.)*

According to the article 55 of the Grenelle 1 Act of August 2009, higher education institutions have to develop a "green plan" for their campus. They may request a certification on the basis of sustainable development criteria.

This approach refers to the European Sustainable Development Strategy, adopting structure with nine key challenges. It also includes the 2008 ministerial circular on an "exemplary State" in terms of sustainable development, for its services and public institutions.

The Green Plan addresses the environmental management of the institution, but also its social policy for teaching.

The Green Plan was developed simultaneously by the Conference of University Presidents (CPU) and the Conference of Higher Schools (CGE) together with the Ministry of Ecology. It was launched in 2010.

This "green plan" (version of 2012)[5] standard aims to help higher education institutions to develop their own sustainable strategy[6]. It contains five axes: strategy and governance, training research, social policy and its links with the territory and environment. Actions and indicators have been set for each axis.

The National Strategy for an ecological transition towards a sustainable Development (SNTEDD), adopted in 2014, includes in parallel a priority about "widespread education for sustainable development from kindergarten to higher education " (priority 23 of axis 7) through the Act relative to rebuilding the school of the Republic[7] that provides a framework for implementing training activities on major issues, including those related to climate change, biodiversity, energy, health, risk, international solidarity... in Higher Institutions for Teaching and Education (ESPE) or doctoral schools and strengthen interdisciplinary training of educators.

1.1. If yes, what ESD processes and approaches do these promote? (*Max. 200 words.*)

These processes are developed at the institutional level, on a voluntary basis. The green plan provides tools to implement sustainable policies.

Individual initiatives are being developed, without any real participatory process.

The examples below show that Sustainable development has been mostly introduced in separate disciplinary settings, for instance management or education sciences, without coordination. Thus, we can question the framing of these initiatives that may not capture properly all dimensions of this transdisciplinary field. Of course, in all cases the classical three-pillar representation of Sustainable development is put forward. However, disciplinary (management, economy, education) or sectoral approaches (urban planning, energy, waste) use different methods and codes, generating antagonistic or contradictory views.

1.2. If yes, do these documents refer to ESD professional development for university educators (as like asking for skills and capabilities)? (*If yes, please provide details. Max. 200 words.*)

The need has been identified. It is reflected in processes and actions that are detailed in the green plan with a series of application indicators, but there is no mention of competencies or skills. However, in September 2014, a specific competencies reference document will be available without any mention to the UNECE competences for educators in education for sustainable development.

In the documents that were consulted, most considerations are about the environment which brings up the question about the correct vision of the sustainable development and its three pillars. One explanation could be that the main "sustainable" policies are led by the ministry of the environment, which does not deal with social aspects.

Some orientations for training are presenting in the green plan. One of them concerns :

- Incentives and support for teachers to facilitate the SD&RS integration and interdisciplinary lessons;
- Integration of DD&RS in staff training policy ;
- Recognition and valuation of these skills.

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[5]http://www.developpement-durable.gouv.fr/IMG/pdf/Referentiel_2012.pdf
[6]http://www.developpement-durable.gouv.fr/Le-plan-vert,25261.html
[7] Republic School orientation and programming Act number 2010-595 of 8th of july 2013 and higher education and research act number 2013-660 of 22th july 2013.

2. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) initiatives (projects, programmes, etc.) on ESD professional development for university educators?** *(If yes, please provide details. Max. 400 words.)*

Several initiatives were identified, emanating from different institutional levels, without particular coordination. Three of them are presented below.
- OPEDUCA[8] : In France, RCE Bretagne[9] is in charge of this European program. Major objectives are to build learning guidelines between primary and secondary, and between secondary and higher education. In Netherlands, MasterClasses have been designed with primary, secondary and higher education teachers. The first year of the MasterClass includes four days of mixed innovative practice in schools[10].

- The Sustainable Literacy Test[11] has been launched in France in April 2014 by the University presidents' conference, High Schools Conference and REFEDD (students federative association). The results will be presented during a Unesco conference in November. It comprises 50 questions designed to assess the knowledge that students have of sustainable development. The objective is to recognize the importance of these aspects for student employment and lead to a better integration in curricula.

- The reference document of sustainable competencies by the CPU, should be available in September 2014. Different educational levels for ESD have been defined between high and low sustainability.
The term skills is mentioned, but at present, only a framework with five entries has been put forward: systemic , collective , prospective , responsibility linked to ethics, management of change.

3. **Do Higher Education institutions have strategic plans or guidelines to promote ESD?** *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☒ Few
☐ Several
☐ Many
☐ All

About 100 institutions have developed strategic plans with self audit (1/3 of existing institutions).

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[8] opeduca.eu
[9] http://www.rce-bretagne.fr/OPEDUCA.html
[10] http://www.rcerm.eu/MASTERCLASSES.html
[11] http://www.sustainabilitytest.org/

4. **Do Higher Education institutions have initiatives (projects, programmes, etc.) to support the professional development of university educators in ESD?** *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☒ None
☐ Few
☐ Several
☐ Many
☐ All

It is incorrectly apprehended because there is no requirement for training for university teachers, therefore no incentives to develop such approach.

5. **Does ESD form part of the quality assurance and accreditation processes of Higher Education institutions?[12]** *(If yes, please provide details. Max. 400 words.)*

- In France, there is no formal accreditation process of staff.
- For Institutions, there is no specific process for the moment but the Sustainability Literacy test has this objective: i.e. integrate ESD level for example in EQUIS certification criteria.

6. **Are there any Higher Education networks, partnerships or main drivers (public, private, NGOs) that support the professional development of university educators in ESD in your country?** *(If yes, please provide details. Please note that networks at the local but also global level might be relevant. Max. 400 words.)*

- The CPU has developed a newsletter and everyone who is interested can received it. It is the beginning of a network.
- The CIRCES association has been created in 2013 with university administrative staff dealing with sustainable development. Its first action concerns environmental management of the campuses. Professional development of university educators in ESD is one of their objectives but it is not a priority for the moment.
- RéUniFEDD[13] is an association, corresponding to an Academic Network of Trainers in Education for Sustainable Development. It ambitions to unite Training and Education for Sustainable Development in higher education institutions.

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[12] In countries where there is a formal accreditation process of staff, please indicate if ESD is taken into consideration in this process and *how*.

[13] http://reunifedd.fr/

7. Are there any higher education initiatives or projects developed in response to the UNECE ESD competences[14]? *(If yes, please provide details. Max. 400 words.)*

None that we could determine.

The reference document of competencies by CPU/CGE will be available in September 2014 but UNECE ESD competences have not been taking into account.

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[14] UNECE (2011) Learning for the future: Competences in Education for Sustainable Development, ECE/CEP/AC.13/2011/6;
http://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competences%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

	GERMANY

Lead person completing the template

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Country information

Country	Germany
Number of Higher Education institutions in the country	415 (thereof 106 universities, 207 universities of applied sciences, 51 colleges of art and music, 29 colleges of public administration, 16 colleges of theology, 6 colleges of education)
Number of Higher Education students in the country	2 613 168 (as of winter term 2013/2014)
UE4SD region	☐ Northern Europe ☒ Western Europe ☐ Southern Europe ☐ Eastern Europe

The status of ESD within Higher Education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences.

1. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) strategies, policies or legislations, which recognise ESD in Higher Education?** *(If yes, please provide details. Max. 400 words.)*

There are no specific national strategies, politics or legislations, which directly recognize Education for Sustainable Development (ESD) in higher education, but a variety of strategies and plans on sustainable development and education for sustainable development.

- Federal Government Germany (2002) Perspectives for Germany: Our Strategy for Sustainable Development: The document describes in detail the strategy for sustainable development in Germany with guidelines on intergenerational equity, quality of life, social cohesion and international responsibility. The focus areas present sustainable economics, climate and energy, and sustainable water policy. The strategy also pays attention to education (school, out of school and universities) and ESD. It calls for integrating ESD into all areas of education.
- The Institutional contract 2014-2018 between the ministry and the HEIs mentions sustainability within the agreements. ESD and competencies of educators are not specifically described.

- Framework Act for Higher Education (Hochschulrahmengesetz) does not mention ESD, but mentions "The institutions of higher education shall encourage the continuing education of their own staff" (Federal Ministry of Education and Research 2005).

Additionally there are various strategies at the province level, such as the strategies of Baden-Württemberg or Schleswig-Holstein:

- Action plan Shaping the Future - Education for Sustainable Development in Baden-Württemberg: the action plan was developed in the framework of the UN Decade on ESD and reflects aims, topics and activities in the province of Baden-Württemberg. Higher Education represents one focus area with its relevance in both education and research on ESD. Competences or professional development for university educators is not mentioned. The University of Applied Sciences in Konstanz aims at a focal point for sustainability related activities (Netzwerk Nachhaltigkeit lernen 2009).
- Action plan on the UN Decade on ESD in Schleswig-Holstein: amongst others, the action plan aims at embedding ESD into the target agreements between universities and the province and shall be integrated in the curricula of all disciplines. It is stated that ESD principles should be promoted in all educational institutions and in education, further education and training of educators and teachers (Ministerium für Landwirtschaft, Umwelt und ländliche Räume des Landes Schleswig-Holstein 2007).
  Additionally within the institutional contract 2014-2018 between the ministry and the higher education institutions training in university didactics for university educators presents a goal. Sustainability is mentioned, but not explicitly ESD or competences of educators (Ministerium für Bildung und Wissenschaft des Landes Schleswig-Holstein).

1.1. If yes, what ESD processes and approaches do these promote? (*Max. 200 words.*)

ESD is rarely directly being addressed. It more involves a general discussion that education is important for sustainability. For instance it is mentioned that ESD is an important pedagogical approach to sustainability and it should be integrated and intensified in all areas of education. Specific teaching contents or approaches are not being described.

1.2. If yes, do these documents refer to ESD professional development for university educators (as like asking for skills and capabilities)? *(If yes, please provide details. Max. 200 words.)*

No. It is often referred to the development of educational opportunities and research, but not to the professional development of university educators. For example several times it is being mentioned that universities should encourage the training of their employees. However, this is not substantiated. It is merely said that it is important for the future that universities accept the responsibility to offer continuous training for their staff.

2. Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) initiatives (projects, programmes, etc.) on ESD professional development for university educators? *(If yes, please provide details. Max. 400 words.)*

There are several initiatives for the ESD professional development of university educators, but hardly specified on ESD and often not explicitly for university educators. Some examples are provided below:

- German Commission for UNESCO addresses the integration of ESD into HE teaching and learning in detail; key sustainability competences students shall develop are mentioned, but not competences of university educators. To some extent the importance of integrating ESD into teacher education is mentioned. It is furthermore stated that there are difficulties in capacity building in teaching and learning and the commission calls for more resources. HE institutions are also called to support informal ESD initiatives (German Commission for UNESCO 2011 and 2013).

- The German Rectors' Conference (Hochschulrektorenkonferenz) and the German Commission for UNESCO on Higher Education for Sustainable Development adopted a resolution about their contribution to the UN Decade "Education for Sustainable Development" in 2010. The aspects of teaching and training are being mentioned, but not specific skills of educators. As part of the UN Decade on ESD different working groups have been established, amongst others the working group on Higher Education, which is active in the field of ESD in HE. In recent years it focused on the development of sustainability coordinators, but undertakes different other activities as well.

- The Lübeck Declaration "Higher Education and Sustainability", which was adopted in the framework of the conference of the North German partnership to support the UNDESD, addresses the UNECE strategy of 2005 and the implementation of the UN decade. It calls for imparting sustainability competences to students, integrating sustainability aspects into the curricula and developing sustainability strategies (Lübecker Erklärung Hochschulen und Nachhaltigkeit 2005).

- In the field of teacher education "Transfer 21", a national initiative, developed a strategy paper on Teacher Education, which highlights the importance of sustainability competences and ESD knowledge of teachers (Programm Transfer 21 2007).

- The Quality pact for teaching presents a comprehensive financial funding opportunity by the government to strengthen quality in HE teaching. A variety of HE institutions have fostered their university didactic programs, some also in the field of ESD. Most of these initiatives are currently in the planning or pilot phase (Federal Ministry of Education and Research).

There are additional seminars on ESD, but not targeted at university educators (rather teachers or staff of non-formal educational institutions), for example "ESD as trade mark" on quality management by the Alfred Toepfer Academy for Nature Conservation.

3. Do Higher Education institutions have strategic plans or guidelines to promote ESD? *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☒ Several
☐ Many
☐ All

In the guidelines and overall concepts of many universities sustainability and environmental protection is anchored. Work is underway to address the issue of sustainability in education, research and campus management in a more integrative way (e.g. Leuphana University of Lüneburg, University of Bremen, Catholic University of Eichstätt-Ingolstadt, School of Economics and the Environment Nürtingen, Eberswalde University of Applied Sciences for Sustainable Development to name a few).

In the area of teaching it is recommended to offer courses and propose topics for theses and dissertations with an explicit reference to sustainability in universities. To achieve this, a couple of universities provide financial resources to create sustainability offices, professorships or appoint sustainability coordinators. But so far ESD is most often applied as individual initiatives in German universities.

A variety of German higher education institutions offer study programs that address sustainability aspects (often focusing on technical studies or management) or the opportunity to attend ESD courses as part of the Bachelor's and Master's degrees for students.

Some universities provide the opportunity for their staff to attend further trainings on issues of sustainable development or strive for possibilities to encourage educators to offer sustainability related courses and stimulate change processes for ESD. A major focus is, for example, in networking courses and ESD. Furthermore new teaching and learning methods are also being tested across faculties.

4. Do Higher Education institutions have initiatives (projects, programmes, etc.) to support the professional development of university educators in ESD? *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☒ Few
☐ Several
☐ Many
☐ All

The Bremer appeal "Universities and Sustainability" of the working group on Higher Education (in the framework of the UN Decade on ESD) requires from education policy, the universities and the economy to compulsory integrate ESD not only in teacher education, but to develop incentives and opportunities for professional development and trainings on ESD for university educators. Every discipline is asked for their contribution, with a special emphasis on engineering and economics (AG Hochschule 2013).

There are a few initiatives to support the professional development of university educators in ESD. Many higher education institutions offer voluntary trainings or mentoring programs in university didactics for their staff, but they hardly focus on ESD. Additionally in some cases the focus is not on the educators' competences, but on the competences students should acquire.

At several universities opportunities for continuing education are directed to the entire university staff and not explicitly to educators (e.g. trainings related to sustainable campus management). Additionally some universities offer series of lectures and discussion forums on sustainability issues that are open for all interested in the topic (Deutsche Gesellschaft für Hochschuldidaktik).

Nevertheless several higher education institutions aim at fostering ESD professional development opportunities for university educators and are searching for ways to attract and motivate them to accept such opportunities.

5. Does ESD form part of the quality assurance and accreditation processes of Higher Education institutions?[15] *(If yes, please provide details. Max. 400 words.)*

In Germany performance agreements and quality assurance are made between the higher education institutions and the ministries of the particular states. Sustainability issues are included in some target and performance agreements of universities, not explicitly in the context of ESD, but in the field of environmental protection, social responsibility, sustainable campus management and lifelong learning. Some universities declare sustainable development as an explicit goal of their strategic direction. The nation-wide Accreditation Commission currently discusses whether ESD can be included in the nationwide accreditation guidelines. This is questionable, though.

6. Are there any Higher Education networks, partnerships or main drivers (public, private, NGOs) that support the professional development of university educators in ESD in your country? *(If yes, please provide details. Please note that networks at the local but also global level might be relevant. Max. 400 words.)*

Networks that explicitly focus in the ESD professional development of university educators do not exist. Nevertheless there are several network that address sustainability aspects in Higher Education in Germany, which are:

- Working group on Higher Education, which was established in the framework of the UN Decade on ESD in Germany and develops concepts and clarifies visions how strategies of the UN Decade could be implemented in the field of HE in Germany (AG Hochschule).
- German Commission for UNESCO, amongst others is coordinating the implementation of the UN Decade on ESD in Germany (Deutsche UNESCO-Kommission).
- The network of universities for Sustainable Development (HNE network) of the province of Baden-Württemberg, in which university educators are linked in an interdisciplinary mailing list. Beside the virtual exchange of information and experiences on sustainability topics, concepts and strategies are being discussed as well. Biannual meetings take place, where network members meet and develop guidelines for integrating sustainability in their universities (Netzwerk für eine nachhaltige Entwicklung in Baden-Württemberg).
- German Rectors' Conference, a network inluding all German universities, not dedicated to ESD in HE, but also addresses this issue (Hochschulrektorenkonferenz)

Additionally there are networks of particular HE institutions, such as "Just good teaching" at the University of Kiel, which serves as central portal for news and developments about quality teaching and is considered to be *"by educators for educators"* (Netzwerk Einfach gute Lehre)

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[15] In countries where there is a formal accreditation process of staff, please indicate if ESD is taken into consideration in this process and *how*.

7. Are there any higher education initiatives or projects developed in response to the UNECE ESD competences[16]? *(If yes, please provide details. Max. 400 words.)*

The UNECE report "Learning for the future" (Lernen für die Zukunft) that addresses competences in ESD has been translated into German in the framework of a cooperation between the German, Austrian and Swiss UNESCO Commissions. A European project called "Real World Learning Network" addresses outdoor and informal learning for sustainability and picks up several competence concepts, amongst other the UNECE competences on ESD. ANU(Arbeitsgemeinschaft Natur und Umweltbildung) is involved as German partner, which presents the German umbrella organisation for environmental centers and environmental education.

The authors are not aware of any higher education initiatives in response to the UNECE ESD competence framework.

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[16] UNECE (2011) Learning for the future: Competences in Education for Sustainable Development, ECE/CEP/AC.13/2011/6;
http://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competences%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

NETHERLANDS

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Country information

Country	The Netherlands
Number of Higher Education institutions in the country	14 research universities; 38 universities of applied science ['hogescholen']
Number of Higher Education students in the country	Research universities: 240,000 students; Universities of applied science: 420,000 students
UE4SD region	☐ Northern Europe ☒ Western Europe ☐ Southern Europe ☐ Eastern Europe

The status of ESD within Higher Education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences.

1. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) strategies, policies or legislations, which recognise ESD in Higher Education?** *(If yes, please provide details. Max. 400 words.)*

In the national Government's Approach to Sustainable Development (Kabinetsbrede Aanpak Duurzame Ontwikkeling) from 2007, explicit attention was paid to ESD and a national policy programme on ESD was initiated (LvDO).

The policy programme LvDO (Learning for Sustainable Development, since 2008) focused on the integration of sustainability in everyday practices, through learning of individuals (in education), of organisations (in government) and of society (multi-stakeholder projects). With regard to HESD, LvDO was a major sponsor of the networks DHO and later DOC (see under 6). Since 2013, the activities of LvDO are continued in the policy programme DuurzaamDoor ('Social innovation for a green economy').

1.1. If yes, what ESD processes and approaches do these promote? (*Max. 200 words.)*

The current relevant ESD policy programme is DuurzaamDoor, which focuses with respect to ESD on stimulating the integration of ESD in curricula, developing learning materials, supporting teachers through networking activities, and stimulating ESD pedagogies. With respect to ESD in higher education, DuurzaamDoor activities are restricted to supporting networking of professionals in HESD.

1.2. If yes, do these documents refer to ESD professional development for university educators (as like asking for skills and capabilities)? *(If yes, please provide details. Max. 200 words.)*

No.

2. Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) initiatives (projects, programmes, etc.) on ESD professional development for university educators? *(If yes, please provide details. Max. 400 words.)*

Since 2008, the Dutch universities have a mutually recognized 'basic educational qualification' (BKO) for university teachers, which serves as a proof of didactic competence. The BKO curriculum consists of a series of in-house training courses, which may differ somewhat between universities, but the curriculum as a whole has to conform to nationally agreed standards. Current BKO curricula do not include ESD professional development. Further options for professional development of university teachers are currently discussed and include: a formal 'senior educational qualification' (SKO), compulsory 'permanent education' activities, mentoring and coaching programs, and teaching/learning communities. ESD could be a topic in these professionalization options, but is currently not yet in the picture.

3. Do Higher Education institutions have strategic plans or guidelines to promote ESD? *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☐ Several
☒ Many
☐ All

Many Dutch universities have adopted mission statements, policies and work plans concerning sustainable development, applied to operational management, research and education (ESD).

4. **Do Higher Education institutions have initiatives (projects, programmes, etc.) to support the professional development of university educators in ESD?** *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☒ None
☐ Few
☐ Several
☐ Many
☐ All

Many Dutch universities have coordination units developing initiatives for integration of SD in operational management, research and education. Concerning education, the focus is on facilitation networking of teachers, including exchange of ideas, approaches, practices and learning materials. There are no initiatives focusing on the professionalization of teachers in ESD.

5. **Does ESD form part of the quality assurance and accreditation processes of Higher Education institutions?[17]** *(If yes, please provide details. Max. 400 words.)*

In the national accreditation framework, universities/study programs are given the opportunity to distinguish themselves by choosing a special feature, e.g., internationalisation, but also "sustainable higher education". This special feature means that "the goal of sustainable development has been integrated comprehensively and systematically in the study program". The formal assessment of this special feature can be done with AISHE 2012 (Auditing Instrument for Sustainability in Higher Education), and the requirement is an AISHE2012 score of at least three stars.

6. **Are there any Higher Education networks, partnerships or main drivers (public, private, NGOs) that support the professional development of university educators in ESD in your country?** *(If yes, please provide details. Please note that networks at the local but also global level might be relevant. Max. 400 words.)*

For many years, the integration of sustainable development in higher education in the Netherlands was driven by DHO, the foundation for 'sustainable higher education'. DHO employed several staff members who supported HESD through (1) development of teaching methods and materials (transdisciplinary, intercultural focus), (2) the auditing instrument AISHE, (3) thematic meetings and workshops, and (4) thematic publications. In terms of professional development of HE teachers in ESD, the thematic workshops for HE teachers, for example on how to use future studies and scenario analysis in HESD, were most relevant. However, due to budget cuts, the governmental subsidy for DHO ended in 2012. The activities of DHO were continued by HOBEON (consultancy and certification) and DOC (networking and online community). Later also the DUPLHO network was formed.

HOBEON is an agency active in consultancy for quality assurance and certification, in particular for the universities of applied science. They have taken over the sustainability auditing activities (with AISHE) from DHO (see under 5). They also offer training workshops for professionalization. An interesting example in the context of UE4SD is the "Change Agent Training" (based on DHO's former

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[17] In countries where there is a formal accreditation process of staff, please indicate if ESD is taken into consideration in this process and *how*.

training of "Leaders for Sustainable Development"). Participants develop competences to become change agents for sustainable development at the level of a study program, faculty or university.]

DOC (Sustainable Education Coalition, since 2011) is a coalition of networks of students and institutions of all levels of education with the aim to develop a consistent curriculum of learning about and for sustainable development, starting in primary schools, through secondary schools and vocational education, up to the university level. DOC is mainly active in lobbying to create a society-wide basis of support for 'education for a green economy' and in mapping and connecting current initiatives in ESD. DOC does not support professionalization of teachers in ESD in a direct way. One of the activities of is PLADO, the online community for sustainable development and education. The focus of PLADO is on networking, online collaboration and sharing of ideas, best practices and materials through groups and thematic pages. Both DOC and PLADO are currently not very active anymore.

DUPLHO is a network of (currently) 18 universities of applied science, representing 75% of all students at Dutch universities of applied science. The aim is to exchange knowledge and expertise on SD in relation to management as well as research and education. The focus is mostly on greening facility management, and currently there are no initiatives to support professional development of teachers in ESD.

7. Are there any higher education initiatives or projects developed in response to the UNECE ESD competences[18]? *(If yes, please provide details. Max. 400 words.)*

The UNECE ESD competences document has been adapted and translated into Dutch (by André de Hamer en Ellen Leussink), specifically for teacher training institutes, which focus on teachers for primary schools. There are no initiatives developed in higher education in response to the UNECE ESD competences document.

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[18] UNECE (2011) Learning for the future: Competences in Education for Sustainable Development, ECE/CEP/AC.13/2011/6;
http://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competen ces%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

SWITZERLAND

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Country information

Country	Switzerland
Number of Higher Education institutions in the country	Switzerland has two types of institutes of higher education. These have the same status but different educational goals: the traditional universities and the universities of applied sciences (UAS). The main task of the universities is to carry out basic research and teaching while the universities of applied sciences place a greater emphasis on practice-oriented studies and on applied research and development. There are 12 traditional universities, i.e. 2 federal institutes of technology (ETH Zurich and EPF Lausanne) and 10 cantonal universities, and 7 public universities of applied sciences each of the UAS assembling a number of HEI. The universities of teacher education are partly integrated in UAS and partly independent. Switzerland has 14 officially independent cantonal universities of teacher education, 4 teacher training institutes integrated into other types of HEI, and 2 associated federal higher education institutes.
Number of Higher Education students in the country	2012/2013: 140'000 students at the universities and over 70'000 students at the universities of applied sciences.
UE4SD region	☐ Northern Europe ☒ Western Europe ☐ Southern Europe ☐ Eastern Europe

The status of ESD within Higher Education at the national level

This section aims at gathering a general view about the integration of ESD within Higher Education in the UE4SD partner countries, with an emphasis on the issue of professional development opportunities for university educators to develop ESD competences.

1. **Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) strategies, policies or legislations, which recognise ESD in Higher Education?** *(If yes, please provide details. Max. 400 words.)*

The Federal Councils' Sustainable Development Strategy 2012-2015 addresses ESD on all educational levels. It emphasis the need and the political will to implement sustainability in teaching und research on the tertiary level but does not provide further details. The core passages are:

- "Swiss education policy has also incorporated the recommendations of the UN decade of education for Sustainable development (2005–2014), as evidenced by the inclusion in 2005 of sustainable development in the university of applied sciences act (Fachhochschulgesetz) and the creation of a Swiss Coordinating Conference for education for sustainable development (Schweizerische Koordinationskonferenz Bildung für eine Nachhaltige Entwicklung, SKBne) in 2008" (p. 13).

- "The Federal Council has made education, research and innovation policy a priority, and has allocated a budget to this area that is increasing faster than the average. This measure should also help to root and strengthen an understanding of sustainability in all fields and at all levels of education, as well as in research. The Federal Council aims to achieve this by setting points of focus with its existing education, research and innovation policies. Where the Swiss Federal institutes of Technology (ETH) are concerned, strategic initiatives are to be implemented to support sustainability-related issues such as resource and energy usage, and spatial development. Under the aegis of the Swiss National Science Foundation (SNSF) both fundamental (e.g. environmental sciences) and more targeted research (e.g. National Centres of Competence in research [NCCR] Climate and North-South, National Research Programmes NRP 68 'Sustainable use of land resources: Fresh Challenges' and NRP 69 'Healthy nutrition and Sustainable Food Production') can contribute to sustainable development. (...) The Federal Council expressly welcomes the fact that the activities of Switzerland's institutions of tertiary education play a major part in an in-depth, scientific treatment of the horizontal issues presented by this Strategy, and in the development of potential solutions to the key challenges that it presents. These institutions of tertiary education are called upon to maintain and enhance research activities that have a bearing on the key challenges and horizontal issues encompassed by the Strategy" (p. 47).

- A new measure that has been integrated in the Strategy reads as follows: "Making sustainable development an integral part of tertiary education in Switzerland: The new Federal act on Promoting Tertiary education and Coordination in the Swiss Tertiary education System (Bundesgesetz über die Förderung der Hochschulen und die Koordination im schweizerischen Hochschulbereich [HFKG]), which will probably enter into force in mid-2014, is important with a view to strengthening the commitment of the individual institutes of tertiary education. The act demands a commitment to sustainable development as part of the accreditation requirements that universities and colleges must satisfy. As part of the implementation of the new Tertiary education act, sustainability criteria in tertiary education are to be refined and applied more strictly, in teaching and research as well as in service

provision and infrastructure. In addition, the federal government may award grants for projects that are of importance to tertiary-education policy throughout Switzerland, if they are centred around sustainable development" (p. 48f.).

In December 2013 this last mentioned measure has been assessed as being in part realised and/or under work.

Cantonal level see question 1.1.

1.1. If yes, what ESD processes and approaches do these promote? (*Max. 200 words.*)

As a rule political documents pursue a whole school approach with regard to ESD in HEI. With regard to HEI and sustainability at traditional universities and the ETHs they mostly address research on sustainability issues, national and international collaboration and the societal contribution to the achievement of sustainability. Some of the cantonal universities have goal-setting agreements (performance agreements) with the respective government explicitly mentioning sustainability in teaching and research; as a rule these agreements do not specify details with regard to ESD approaches.

The accreditation requirements UAS have to meet also include a domain "sustainability". According to this directive UAS have to design their educational offerings as well as their research and their service offers in line with sustainability, they have to foster sustainability competencies with their students, and they have to manage their infrastructures and resources in an efficient and environmentally friendly way (original: "Die Fachhochschule konzipiert ihr Studienangebot, ihre Forschungsaktivitäten sowie das Dienstleistungsangebot nachhaltigkeitsgerecht, fördert das Nachhaltigkeitsdenken ihrer Studierenden durch geeignete Massnahmen und bewirtschaftet ihre Infrastrukturen und Ressourcen energieeffizient und umweltschonend"; 1.11., Mai 13th, 2013).

1.2. If yes, do these documents refer to ESD professional development for university educators (as like asking for skills and capabilities)? *(If yes, please provide details. Max. 200 words.)*

No, they do not.

2. Are there any national (including regional jurisdictions such as cantons, states, provinces, etc.) initiatives (projects, programmes, etc.) on ESD professional development for university educators? *(If yes, please provide details. Max. 400 words.)*

In answering this question I do not expand on how Swiss universities deal with sustainable development in a general way (many of them have special teams and delegates concerned with sustainability) and/or with regard to their educational offerings on Bachelor-, Master- and PhD-level and/or with regard to their offerings in sustainable development for a broad public, but focus on the topic of ESD professional development for university educators and on initiatives at the national level.

Since 2013 Switzerland has a funding program focusing on ESD at the tertiary level (but restricted to cantonal universities). The "Sustainable Development at Universities Programme" 2013-2016 aims at strengthening the position and competence of Swiss universities in supporting sustainable

development (focus is on teaching, research and student initiatives; campus greening is not supported). It is run by the Network for Transdisciplinary Research (td-net) of the Swiss Academies of Arts and Sciences on the basis of a mandate by the Swiss University Conference (SUC) and in partnership with the Mercator Foundation Switzerland. Universities can submit proposals to get funding for ESD-projects. Many of these projects will at least indirectly impact ESD professional development for university educators, as most of them encompass some kind of exchange (see also question 7). The third call will include, as a complete new element, the project type "Faculty training courses for sustainable development" (see also question 7). Thus, by 2015 there will most probably be some Swiss projects starting with a special focus on ESD professional development for university educators (the call for proposal has just been issued, deadline for proposals is December 1st, see http://www.sd-universities.ch).

The federal institutes of technology (ETH Zurich and ETH Lausanne) have their own initiative supporting ESD-projects (https://www.ethz.ch/en/the-eth-zurich/sustainability/eth-sustainability.html), but ESD professional development for university educators is not yet addressed.

The "Swiss Conference of Rectors of Universities of Teacher Education, COHEP" mandated a consortium with the development of suggestions on how to integrate ESD in teacher education. The groups suggestions encompass suggestions regarding ESD professional development for educators of teachers (see Konsortium-BNE 2012). These suggestions are not yet implemented.

3. Do Higher Education institutions have strategic plans or guidelines to promote ESD? *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☐ Several
☐ Many
☐ All

Several Swiss HEI have strategic plans or guidelines to promote ESD, many of them even have special teams and delegates concerned with sustainability. It is not possible to give a complete report on how the single Swiss HEI deal with ESD on Bachelor-, Master- and PhD-level and/or with regard to their offerings in sustainable development for a broad public. To do this seriously would need in-depth research with each of the HEI. But in 2010, the Swiss td-net analysed the status quo of sustainable development in teaching and research at Swiss universities ("Bestandesaufnahme Nachhaltige Entwicklung, Nachhaltige Entwicklung: Thesen zu Nachhaltiger Entwicklung in Lehre und Forschung an universitären Hochschulen der Schweiz"; download: http://sd-universities.ch/about_the_programme/background/). See also above, question 1.

4. **Do Higher Education institutions have initiatives (projects, programmes, etc.) to support the professional development of university educators in ESD?** *(Please tick the box regarding your estimation of the situation in your country and provide an overview, not specific details. Max. 400 words.)*

☐ None
☐ Few
☐ Several
☐ Many
☐ All

As a rule they do not. Some HEI offer courses in Sustainability for their educators (see for example http://www.kfh.ch/uploads/dkfh/doku/2_Grundlagenpapier_NE_an_FH_definitiv_10_02_08.pdf, p. 33), but they do not offer courses specifically designed to support competencies in ESD on a tertiary level. What they might do are special days and/or workshops, but if they do so, they don't do it on a regular basis. This might change due to the funding program focusing on ESD mentioned in answering question 2 and question 7.

In answering this question I did not expand on how Swiss universities deal with sustainable development in a general way (many of them have special teams and delegates concerned with sustainability) and/or with regard to their educational offerings on Bachelor-, Master- and PhD-level and/or with regard to their offerings in sustainable development for a broad public. I focused on the topic of ESD professional development for university educators and on official initiatives by the HEI (for bottom-up initiatives see question 6).

5. **Does ESD form part of the quality assurance and accreditation processes of Higher Education institutions?**[19] *(If yes, please provide details. Max. 400 words.)*

The national process of accreditation encompassing sustainable development is dealt with in the "Bundesgesetz über die Förderung der Hochschulen und die Koordination im schweizerischen Hochschulbereich (Hochschulförderungs- und -koordinationsgesetz, HFKG)" (it will probably enter into force in mid-2014). Sustainable development is mentioned as one of the requirements of accreditation (HEI shall perform their tasks in line with the principles of sustainable development; ESD is not specifically mentioned). The accreditation process for Swiss HEI has just started, but it will equally concern universities, UAS and universities of teacher education. The accreditation process concerning universities of applied sciences has a longer history (see above, question 1.1).

6. **Are there any Higher Education networks, partnerships or main drivers (public, private, NGOs) that support the professional development of university educators in ESD in your country?** *(If yes, please provide details. Please note that networks at the local but also global level might be relevant. Max. 400 words.)*

There are networks for educators working in universities of teacher education (www.education21.ch/de/lehrerbildung/netzwerke; and www.cohep.ch/de/fachgruppen/#c1243) including also teachers on the secondary level. Otherwise, officially, such networks do not yet exist.

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[19] In countries where there is a formal accreditation process of staff, please indicate if ESD is taken into consideration in this process and *how*.

There are some though on a informal basis (bottom-up) and not known outside the group of participants - one example being a small group of educators at the University of Berne that intended to exchange experiences, another being the responsibles of the Master for Sustainable Development at the University of Basel meeting on a regularly basis to discuss experiences and further developments, a third one being the steering group ESD at the university of teacher education in Zurich (www.phzh.ch/de/ueber_uns/Organisation/Bildung-fur-Nachhaltige-Entwicklung/), and a fourth one being a working group at the Zurich University of Applied Sciences that initiated a discussion on sustainability among educators, research associates and students (see Wilhelm/Wyder 2014). This situation might change due to the funding program focusing on ESD mentioned in answering question 2. Something to be mentioned here as well is the annual Sustainable University Day (2014-2017), collaboratively organised by the Sustainable Development at Universities Programme and a Swiss university and aiming at exchanging experiences. Furthermore, an initiative of the Swiss academic society for environmental research and ecology (SAGUF) has to be mentioned: this years' annual conference is devoted to "Sustainability competences in higher education" (http://sd-universities.ch/index.php;
http://sagufv2.scnatweb.ch/d/arbeitsgruppen/bildung_nachhaltige_entwicklung/).

The most prominent actor in the field of ESD in Switzerland is the foundation éducation21. The foundation coordinates and promotes ESD in Switzerland. It acts on behalf of the Swiss Conference of Cantonal Ministers of Education (EDK), the federal government and civil society (http://www.education21.ch/en/home). Its focus at the time being is on the level of primary and upper secondary education, but it shall include other educational levels as well in future.

The "Swiss Conference of Rectors of Universities of Teacher Education, COHEP" mandated a consortium with the development of suggestions on how to integrate ESD in teacher education. The groups suggestions encompass the development and maintenance of a national network for educators of teachers (see Konsortium-BNE 2012). This suggestion has not yet been implemented.

Swiss university educators often are engaged in international networks where faculty development and/or professional development of university educators is addressed - one example being "50+20", a collaborative initiative that seeks to learn of new ways and opportunities for management education (http://50plus20.org), another being the network "Lehrerbildung für eine nachhaltige Entwicklung (LeNa)", a network assembling representatives and educators of universities of teacher education, a third one being "Environment and School Initiatives (ENSI)" (http://www.ensi.org/About_ENSI/), a fourth one being the German "AG Hochschule".

7. Are there any higher education initiatives or projects developed in response to the UNECE ESD competences[20]? *(If yes, please provide details. Max. 400 words.)*

In answering this question I do not expand on how the different Swiss HEI deal with ESD and/or try to report their single educational offerings on Bachelor-, Master- and PhD-level and/or their different offerings in sustainable development for a broad public. Many Swiss HEI offer at least one course addressing sustainable development, but only few offer elaborated curricula completely devoted to sustainable development. In my answer I focus on initiatives on a national level.

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[20] UNECE (2011) Learning for the future: Competences in Education for Sustainable Development, ECE/CEP/AC.13/2011/6;
http://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competences%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

The abovementioned "Sustainable Development at Universities Programme" 2013-2016 is such an initiative. Details about this programme and the funded projects can be found online: http://sd-universities.ch/about_the_programme/. In the context of the project UE4SD initiatives addressing also (or at least having the potential to address also) professional development of university educators are of special interest.

The initiative "Sustainable Development at Universities Programme" has such a potential (see question 2): One of the already running projects that also addresses educators is the project "ESD Toolkit for Faculty", lead by Prof. Dr. Sabine Seufert (University of St. Gallen, Institute for Business Education and Educational Management). The project focuses on the development of a toolkit that supports and enables faculty in developing key competences for sustainable development (SD) in their students (projects page: https://www.alexandria.unisg.ch/Projekte/nach-Institut/IWP/229597). For a lay summary see http://sd-universities.ch/project_funding/funded_projects/index.php?id=A2-2. Another one is the project "Development of a Curriculum Integrating Sustainable Development in Management Education", lead by Prof. Dr. Taiga Brahm, University of St. Gallen (http://sd-universities.ch/project_funding/funded_projects/index.php?id=A2-1). For further development of the initiative "Sustainable Development at Universities Programme" see question 2.

In future, in Switzerland ESD shall be integrated in school level teaching. This decision will impact the educators at the universities of teacher education. It has to be assumed that professional development of these educators in the field of ESD will find more attention in future (see also question 2, the reported suggestion with regard to educators of future teachers).

ANNEX 3 – National examples of professional development opportunities in ESD for university educators

This section lists all examples of professional development opportunities in ESD for university educators from the national mapping reports in alphabetical country order.

AUSTRIA – EXAMPLE 1	
Title of the professional development initiative	**University Course ESD-Innovation in Teacher Education**
Who is the facilitator or leading institution?	AAU (Alpe Adria University Klagenfurt)
Who participates?	Partners: University Colleges for Teacher Education in Upper Austria (Main Partner) as well as UCTE in Lower Austria, Styria, Vorarlberg; Private UCTE Vienna, University of Vienna – AECC Biology; Hochschule für Argrar-und Umweltpädagogik. Target group: - Teacher trainers (if possible teams who could learn from each other, like to foster their competences in the field of qualitative research, are interested in ESD and are working in the field of training and continuing education) - Educators from all educational levels, interested in ESD
How many people can participate?	30
What type of professional development is it?	☐ Short course ☐ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☒ → **Others** *(please specify)*: **4 Semester University Course with Certificate**
When does the initiative take place? *(Please only list initiatives since 2005.)*	Three courses since 2005
How long does it take?	4 Semesters (including 4 four-day seminars, 5 two-day regional meetings and a final event)
What is the purpose and objective?	The four-term course of studies is geared towards people who are working in teacher (further) education. The participants should acquire subject-related as well as didactic competences for the organisation of teaching and learning processes in the sector of education for sustainable development, and become qualified for the planning, realisation and documentation of research projects.
What is the ambition (idea behind the initiative)?	See above

What is the professional development initiative about (focus, thematic entry point)?	The course of studies is an in-service training for teachers in the form of seminars and working groups comprising three modules and a research project. The courses are held as blocks in different places in Austria. In the *seminars (SE)*, the contents are conveyed in the form of presentations and input by the seminar leaders/guest speakers (designated experts from educational, political, social and economic sciences) and then dealt with and discussed on a deeper level in group work, exercises and workshops. *Working groups (AGs)* served to facilitate the exchange of experiences, the work on literature and the support of research work. AGs are held in regional groups and lead by a member of the leadership team of BINE. In the *research project* the participants develop and investigate a project based on their own practice according to the paradigm of practice research / action research (Altrichter/Posch 1998; Rahm/Schratz 2004). The work is supervised by a member of the leadership team. The course of studies comprises the following *obligatory courses* (amounting to a total of 14 successive hours per semester (SST) resp. 30 ECTS-points): - *Module 1*: Concepts of Sustainable Development, topics of Education for Sustainable Development, research methods, conception of own project and research plan (1. term; SE 3 SST/3 ECTS; AG 1 SST/1 ECTS) - *Module 2*: Didactic Strategies in Education for Sustainable Development; research methods; reflection and analysis of the projects conducted so far and research (2.-3. term; SE 3 SST/3 ECTS; AG 3 SST/3 ECTS) - *Module 3*: research methods; visualisation and presentation techniques; cooperative further education – mini workshops, presentation of the results of the course of study (3.-4. term; SE 3 SST/3 ECTS; AG 3 SST/3 ECTS) The course of studies is led by a team of experts: Franz Rauch (scientific leadership), Regina Steiner (organisational leadership), Franz Radits, Katharina Soukup-Altrichter and Johannes Tschapka. The same team represents the exam committee. The course of studies is completed with a certificate indicating the individual performance profile. This certificate is acknowledged as first section for the instruction course „Professionalität im Lehrberuf" (ProFiL; meaning "Professionalism in the Teaching Profession") with the title "Master of Arts in Education (Instruction and School Development)" which is offered by the IUS of the University of Klagenfurt.
What is the pedagogical approach?	The following principles form the basis of the BINE course of studies: - Equal emphasis is put on theoretical-methodical foundation and learning from one's own practical experiences/projects. - Projects on sustainable development and research activities are related to one another. - The projects carried out in the scope of the course of studies should be carried out in accordance to the UMILE (environmental education in teacher education) principles.
What has attracted the	In the year 2003, in the start-up to the course of studies, three one-

participants to take part in the initiative?	day symposia „Bildung für Nachhaltige Entwicklung – Möglichkeiten und Chancen für die LehrerInnenbildung" ("Education for Sustainable Development – Possibilities and Chances for Teacher Education") took place in three cities in Austria (Salzburg, Graz, Baden). There, the topic was addressed in the form of presentations and workshops and the course of studies BINE was introduced (Radits/Braunsteiner/Klement 2004). After this symposium, more than 30 people were interested in participating. 21 of them started the course of studies. The participants came from Pedagogic Academies (pre-service education for primary and secondary schools) and Pedagogic Institutes (in-service education for all teachers). They teach a broad spectrum of subjects from natural science and humanities, specialised didactics and instruction practice. The most important reasons for participation in the course of studies (on basis of the registration questionnaire and the first series of interviews with participants) were: • Personal further education interest in the sector of development of research competence as well as education for sustainable, didactic innovations. • Further qualification in order to get a good starting position at the forthcoming Pedagogic University /in order to keep the existing employment21; • Communication with colleagues. • Although the course was communicated to the rectorates of some Austrian Universities, up to now no full-time University lecturers have participated in the course.
What is valuable and interesting about this initiative? Why is it worth doing it?	- Creation of a learning community - Inquiry of own project - Exchange of experiences among participants - Facilitation by a course team - Combination of ESD and Research (especially Action Research/ Qualitative Research/ Case Study Work)
How is the initiative being funded?	- Funds by the Ministry of Education (first and second course) - Funds by participating University Colleges and Universities - Fees by participants (€ 500,-- per participant)
How is the initiative being evaluated? If possible, please share some of the results.	The course is based on a formative and cumulative self-evaluation concept with internal and external components. For the purpose of *internal* evaluation, questionnaires on the course, which provide insight into the participants' qualifications, motives, aims and expectations related to the course of instruction, registration and the first seminar, were designed by the leadership team. At the end of each seminar written and oral feedback was gathered from each participant. For the purpose of the *external* evaluation, at the beginning of the first module and at the end of the third module group interviews with selected participants, and at the end of the course of instruction also with the leadership team, were made and evaluated by an interview expert. The collateral five PFL-courses of instruction at the IUS were evaluated by the same evaluation expert (Willi Erlacher) according to the same evaluation concept and the

21 In 2007, the PAs and PIs are transformed into Pedagogic University in Austria. Qualifications – above all in the pracitice-oriented research sector – are seen as supportive for getting employments resp. for keeping existing employments. For some participants it is also important to be able to obtain a master`s degree building up on BINE.

	results are compared to each other, as the BINE course of studies is part of the Professional Academy of the IUS.
	Summary of Evaluation: Discussion and Consequences
	- The results of the evaluation of the first module (from the feedback form distributed at the end of the module) can be seen as a validation for the chosen participant-centered approach. The idea of connecting content with method in order to bring to life ESD as a regulative idea was not consciously realized by all of the participants. It would also be meaningful to expand the reflection on the meta-level (also concerning teacher education).
	- The evaluation of the second module indicated a difficulty concerning research competences for the independent projects and studies. It would be important to make clear the use of action research not only as a research tool, but rather as ESD content, in the sense of emancipated, democratic, and reflective didactics. Interestingly enough, the assessment shifted when reviewing the program. In the final assessment (a "temperature curve" for the entire program), the second and third module were both assessed with higher marks than the first module. Comments included "insecurity, confusion, uncertainty". In the second module, the plethora of information was seen in retrospect as positive (despite the time pressure). It is possible that the uncertainty in the first module and also in the regional groups was fundamental for the process of change that the participants underwent during the program. This can clearly be seen in the development of the studies.
	- The regional groups, one of the most important pillars of the program concept, were not immediately deemed helpful by all participants. One theory for this is that some participants were focused entirely on their own projects and showed little interest in posing questions to the others, possibly brought on by the fact that their areas and fields differed greatly. A challenge exists in finding ways to interest the participants in the projects of others, in order to utilize the potential of the peer group.
	- In conclusion, two questions which require further discussion: (1) In program design, how can we strike a balance between the participatory and self-determined work of the participants on SD and ESD and still create enough uncertainty to challenge the participants to question their previous experience by creating a confrontation with plethora of topics, concepts, and methods of ESD? (2) How can we prevent the concept of SD as a regulative idea from degenerating into a "whatever" attitude?
Link to website/ references	http://ius.aau.at/lehre_und_beratung/lehrgaenge/bine/index.php

Competences for educators in education for sustainable development

Please complete this grid for each good practice you describe. Reflecting the good practice, please fill the blank fields by reflecting competences that are being developed through the initiative (and/or by describing concrete activities that promote the development of competences). The grid is based on the UNECE ESD Competences for Educators (2011); the framework can be found in the annex to this document.

Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	**ENVISIONING CHANGE** *Past, present and future*	**ACHIEVING TRANSFORMATION** *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• the basics of systems thinking • ways in which natural, social and economic systems function and how they may be interrelated • the interdependent nature of relationships within the present generation and between generations, as well as those between rich and poor and between humans and nature • their personal world view and cultural assumptions and seek to understand those of others • the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	• the root causes of unsustainable development • that sustainable development is an evolving concept • the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability • the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change • the importance of preparedness for the unforeseen and a precautionary approach • the importance of scientific evidence in supporting sustainable development	• why there is a need to transform the education systems that support learning • why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges • the importance of building on the experience of learners as a basis for transformation • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• work with different perspectives on dilemmas, issues, tensions and conflicts • connect the learner to their local spheres of influence	• critically assess processes of change in society and envision sustainable futures • communicate a sense of urgency for change and inspire hope • use the natural, social and built environment, including their own institution, as a context and source of learning	• facilitate participatory and learner-centred education that develops critical thinking and active citizenship • assess learning outcomes in terms of changes and achievements in relation to sustainable development
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	• actively engage different groups across generations and disciplines	• facilitate the emergence of new worldviews that address sustainable development • encourage negotiation of alternative futures	• challenge unsustainable practices across educational systems, including at the institutional level • help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	• is inclusive of different disciplines, cultures and perspectives	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally • is willing to take considered action even in situations of uncertainty	• is willing to challenge assumptions underlying unsustainable practice • is a facilitator and participant in the learning process • is a critically reflective practitioner • inspires creativity and innovation • engages with learners in ways that build positive relationships

AUSTRIA – EXAMPLE 2	
Title of the professional development initiative	**SUSTAINICUM Training Workshop**
Who is the facilitator or leading institution?	University of Natural Resources and Life Sciences Vienna, University of Graz, Graz University of Technology
Who participates?	Lecturers and interested staff at the partner universities
How many people can participate?	30-40
What type of professional development is it?	☐ Short course ☒ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	The training workshop took place three times in 2013.
How long does it take?	4 to 6 hours each
What is the purpose and objective?	The SUSTAINICUM training workshops are part of the SUSTAINICUM project, in which a free online platform was developed that contains a collection of educational resources for sustainability in higher education. The SUSTAINICUM platform aims to implement sustainability related topics into existing University courses by offering adequate teaching materials combined with innovative teaching methods that encourage educators to interactively involve students to participate in the lecture. Within the training workshops, educators get familiar with the idea of the platform. They learn how to use the platform, how to search for suitable teaching resources, and how to build and contribute their own new resources. Furthermore persons who contributed own resources (i.e. teaching methods or materials) to the platform, had the possibility to present their resources to the participants in an interactive way (e.g. via live experiments or educational games), which provided a valuable opportunity for the educators to exchange and learn from each other.
What is the ambition (idea behind the initiative)?	The SUSTAINICUM platform offers learning resources (tool + method + guidance book for the teacher + handouts for students) related to sustainability topics to University educators on a virtual platform. Virtual tools can be downloaded together with the guidance books and handouts, real tools can be borrowed by the authors of the resources. Up to now the platform offers over hundred resources and a community of 50 resource authors. Hence the platform serves an important opportunity for professional development in ESD for University educators. The idea behind is, that University educators act as both learners and teachers at the same time. All resources come along with compact

	information (recommendation how to use the resource, an introduction to the topic, and last but not least the learning target). Beside that the educators are encouraged to create and submit their own resources to the platform. Learning ESD by doing it.
	The training workshops on the one hand act as dissemination events for promoting the SUSTAINICUM online platform, and on the other hand aim at providing a further platform for educators to acquire ESD competences and learn from each other.
What is the professional development initiative about (focus, thematic entry point)?	The initiative with the objective of substantial sustainability enhancement in higher education focuses on ecological, economic and social sustainability and innovative teaching methods.
	Resources at the SUSTAINICUM platform are integrative and do not exclude any discipline, the common principle of the resources is ESD or sustainability. Hence the topics presented during the training workshops were quite diverse, ranging from business, philosophy, energy, consumption and production, human rights, the ecological footprint and specific methods. One workshop was held by Dennis Meadows who presented various sustainability games.
What is the pedagogical approach?	Teachers get in touch with the platform and ESD at training workshops. When using teaching resources, or during the whole creation process from the idea to the tested and released new teaching resource, the engagement with the platform and the author community enables University teaching staff to get in touch with new SD topics and methods.
What has attracted the participants to take part in the initiative?	Educators use the teaching resources in their own existing lectures. While searching for suitable materials they get familiar with the structure of the platform and the ideal teaching resource. Some of the users get encouraged to create and submit own resources. The training workshop presented a further opportunity to learn more about the resources and exchange with other lecturers.
	The platform is integrated in follow-up projects in order to ensure that the project will expand with regard to new Universities, regions, countries, topics or target groups. Within these follow up projects, new teaching staff is encouraged to act as authors for new resources as well.
What is valuable and interesting about this initiative? Why is it worth doing it?	All platform contents are produced in such a way that University educators can get familiar with the topic in a time saving manner. The usage of resources upgrade the own lectures. The contribution of own resources gives an opportunity to educators to be recognized as an author of teaching resources related to ESD. Both the SUSTAINICUM community and platform serves as an important pool of ESD related information.
	The SUSTAINICUM platform won the Austrian Sustainability Award 2014, the UNESCO Decade of ESD Project Award 2013, and the RCE Recognition Award 2013.
How is the initiative being funded?	The project was funded by the Austrian Federal Ministry of Science and Research within the framework of the call Projekt MINT-Massenfächer as part of the budget offensive of 2011/12 for higher education.
How is the initiative being evaluated? If possible, please	The initiative has not been evaluated.

share some of the results.	
Link to website/ references	Link to the resource platform: www.sustainicum.at; there is no specific link to the training workshops

Competences for educators in education for sustainable development

Please complete this grid for each good practice you describe. Reflecting the good practice, please fill the blank fields by reflecting competences that are being developed through the initiative (and/or by describing concrete activities that promote the development of competences). The grid is based on the UNECE ESD Competences for Educators (2011); the framework can be found in the annex to this document.

Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• the basics of systems thinking • the integration and application of sustainability in various different disciplines • ways in which natural, social and economic systems function and how they may be interrelated • their personal world view and cultural assumptions and seek to understand those of others • the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	• the root causes of unsustainable development • that sustainable development is an evolving concept • the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change • the importance of scientific evidence in supporting sustainable development	• why there is a need to transform the education systems that support learning • why it is important to prepare learners to meet new challenges • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• create opportunities for sharing ideas and experiences from different disciplines/places/cultures/generations without prejudice and preconceptions • connect the learner to their local and global spheres of influence	• critically assess processes of change in society and envision sustainable futures • communicate a sense of urgency for change and inspire hope • use the natural, social and built environment, including their own institution, as a context and source of learning	• facilitate participatory and learner-centred education that develops critical thinking and active citizenship
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	• actively engage different groups across generations, cultures, places and disciplines	•	• challenge unsustainable practices across educational systems • help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	• is inclusive of different disciplines, cultures and perspectives	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally	• is a facilitator and participant in the learning process • is a critically reflective practitioner • inspires creativity and innovation • engages with learners in ways that build positive relationships

AUSTRIA – EXAMPLE 3	
Title of the professional development initiative	BOKU Working group on HESD
Who is the facilitator or leading institution?	Rectorate of the University of Natural Resources and Life Sciences Vienna (BOKU Vienna)
Who participates?	Center for Global Change and Sustainability of BOKU Vienna, Center for Education of BOKU Vienna
How many people can participate?	Not defined
What type of professional development is it?	☐ Short course ☐ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☒ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	Start in 2015 (the initiative was decided in 2014 by the rector in context of the development of the sustainability strategy at the BOKU Vienna)
How long does it take?	Not defined
What is the purpose and objective?	Bring together lecturers who already teach sustainability related issues and who want to learn from others and exchange on topics and didactic approaches.
What is the ambition (idea behind the initiative)?	Learn from others, best practice, enhancement of skills and competencies of University teachers
What is the professional development initiative about (focus, thematic entry point)?	Key aspects: Ecological, economic and social sustainability; conservation and sustainable use of natural resources; teaching methods; didactic approaches
What is the pedagogical approach?	Not defined
What has attracted the participants to take part in the initiative?	-
What is valuable and interesting about this initiative? Why is it worth doing it?	Students who start to study at the BOKU Vienna ("University of Life") are looking especially for sustainability related courses. The popularity of lectures with sustainability related topics is constantly increasing, more and more University teachers are interested in enhancement of ESD skills.
How is the initiative being funded?	Not defined
How is the initiative being evaluated? If possible, please share some of the results.	Not defined
Link to website/ references	-

Competences for educators in education for sustainable development

Please complete this grid for each good practice you describe. Reflecting the good practice, please fill the blank fields by reflecting competences that are being developed through the initiative (and/or by describing concrete activities that promote the development of competences). The grid is based on the UNECE ESD Competences for Educators (2011); the framework can be found in the annex to this document.

Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• ways in which natural, social and economic systems function and how they may be interrelated • the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	• that sustainable development is an evolving concept • the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability • the importance of scientific evidence in supporting sustainable development	• why there is a need to transform the education systems that support learning • why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• connect the learner to their local and global spheres of influence	• use the natural, social and built environment, including their own institution, as a context and source of learning	•
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	•	•	• help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	•	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally	• is a facilitator and participant in the learning process • inspires creativity and innovation • engages with learners in ways that build positive relationships

BELGIUM – EXAMPLE 1	
Title of the professional development initiative	**A longitudinal overview of professional development initiatives in a university**
Who is the facilitator or leading institution?	Leuven University College (KHLeuven) – Department of Business Studies (ECHO)
Who participates?	Several groups of participants: - Individual university educators from the Department of Business Studies; - Individual university educators from other Departments (e.g. teacher training; - Individual university educators from other HEIs; - External stakeholders (e.g. from NGO's).
How many people can participate?	Depending on the activity: - Small scale workshop: 10-20 participants; - Departmental professional development activity: all educators; - Seminars (with external stakeholders: between 40 and 150 participants.
What type of professional development is it?	☐ Short course ☒ Teaching support initiative ☒ Seminar ☒ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	Overview of the timing of the different initiatives: (1) 2003-2004: ECHOes of Sustainability: mapping of courses and study programs; AISHE audit of business management programs: 1-star certificate for Department of Business Studies. (2) 2005-2008: Project DOHO (Duurzame Ontwikkeling en Hoger Onderwijs – Sustainable Development and Higher Education): screening of competences; AISHE audit of all study programs; individual initiatives for staff development. (3) 2007-2010: Project on Sustainable Development in Marketing Programs: Integrating the topic in the curriculum; organising a seminar for internal and external stakeholders. (4) 2008-2010: Project REBEL – E-learning modules for Responsible Business (REBEL): development of online modules to integrate business ethics and corporate social responsibility in the curriculum. (5) 2009-2010: new AISHE audits in the Department of Business Studies: 2-star certificate for Sustainable Higher Education. (6) 2011-2012: Project: Calculation of the Ecological footprint of KHLeuven: Organisation of a seminar for internal and external stakeholders. (7) 2013-2014: Project: ESD-competences for marketing teachers: defining competences; developing tools and instruments for teachers; integrating in curriculum. (8) 2014-2015: Project: Echo for a sustainable future: transition towards sustainable higher education (2014-2016): Curriculumscan; staff development and AISHE audits in the Department of Business Studies. (9) 2013-ongoing: Staff development trajectory for University educators in

	the Department of Business Studies.
How long does it take?	Depending on the activity:
	(1) Project duration of 1 year: periodic staff induction in the topics of sustainability, corporate social responsibility and business ethics; 2 AISHE audits with a group of 15-20 participants: duration 1 day.
	(2) Project duration of 3 years: a working group of educators (8 participants) came together every month to prepare screening of competences, AISHE audits, policy plan, etc.
	(3) Project duration of 3 years: a working group of educators (4 participants) came together on a regularly basis to guide the project, integrate in curriculum, etc.; Organisation of a seminar for internal and external stakeholders: "Designing Change: Social Marketing for Sustainability Transitions" (150 participants).
	(4) Project duration of 2 years: periodic staff induction in the topic, presentation of the results to staff at internal professional development day.
	(5) Project duration 1 year: organisation of 2 AISHE audits with a group of 20 participants, each audit is 1 full day.
	(6) Project duration 1,5 year: a working group of internal and external project partners (4 participants) came together on a monthly basis; organisation of a seminar on the use of ecological footprint in higher education (also for educational purposes in the curriculum): 40 participants (internal and external: university educators, NGO's, local policy makers, etc.
	(7) Project duration 1,5 year: all teachers in the marketing study program are involved in the project, aiming at (a) defining competences for SD in marketing, (b) developing tools and instruments for university educators, to enable them to integrate these competences.
	(8) Project duration 2 years: staff induction in the topic of SD, specifically related to their course (curriculum scan). This is a follow up of the screening that has been done in projects (1) and (2).
	(9) Project duration: ongoing. Trajectory aims at (a) Staff induction on sustainability (general) (1 day); (b) Staff induction on specific SD topics in business (1 days); (c) Staff induction on specific SD topics related to the study programs (finance, marketing, etc.) (1 day)
What is the purpose and objective?	Different purposes can be identified, depending on the initiative:
	(1) Raise awareness; curriculum screening; sustainability audit;
	(2) Raise awareness; competence screening; sustainability audit;
	(3) Integration of a specific course or topic in the curriculum;
	(4) Integration of a specific course or topic in the curriculum;
	(5) Sustainability audit;
	(6) Raise awareness; sustainability audit;
	(7) Staff induction; competence screening;
	(8) Staff induction; curriculum screening;
	(9) Staff induction.
What is the ambition (idea behind the initiative)?	Three main ambitions can be identified within this example:
	(1) Screening: finding out where and to what extent SD is already integrated within the curriculum, within the competences, within the organisation;
	(2) Developing tools and instruments to enable university educators to integrate SD in their course, module or study program;
	(3) Staff induction to enable university educators to start working on the topic.

What is the professional development initiative about (focus, thematic entry point)?	As the examples described are taking place in the Department of Business Studies, the focus is merely on the following topics: - Sustainable development in business; - Corporate social responsibility; - Business ethics - General competences for sustainable development; - Specific competences for sustainable development for business management programs; - Sustainability auditing and reporting (e.g. AISHE, ecological footprint analysis).
What is the pedagogical approach?	Leuven University College is characterised by the integration of core values and competences for staff development. These are focusing towards (a) learning, (b) commitment, (c) initiative, (d) cooperation, (e) respect. Most of the initiatives are characterised by a bottom-up approach, enabling individual educators to participate and get involved in the project. Pedagogical approaches are the following: - Small thematic working groups to prepare topics and guide projects (between 4-8 participants); - Focus groups and audit groups, to perform a specific audit or screening (e.g. AISHE) (between 15-20 participants); - Organisation of seminars and professional staff development activities: both lectures as interactive workshops are organised.
What has attracted the participants to take part in the initiative?	Different aspects are of importance here: - Educators were allocated a percentage of working time (e.g. 5% FTE) to work on a specific topic or to participate in a specific initiative (e.g. for activities (1), (2), (3), (4), (6), (7) and (8); - Initiatives were organised as part of the general staff development activities, so all university educators were enabled to take part (e.g. for activities (2), (7) and (9); - Personal interest of participants in a given topic (for all activities, but especially in (3) and (6).
What is valuable and interesting about this initiative? Why is it worth doing it?	This examples shows the process an individual university can undertake to indulge its educators into the topic of sustainability. We see a variation in approaches and initiatives, with the end point of a structural staff development trajectory (which is still ongoing). What is important here is the fact that this has been a very "organic" process, involving projects, audits, working groups, seminars, etc. Also, it shows that this process is never "finished", a constant movement is necessary to keep the integration going (for a detailed description of the integration process, including bottom-up, top-down, human factors, etc., see: Verhulst and Lambrechts, 2014, in press).
How is the initiative being funded?	Several funding opportunities have been found: - Internal funding: general sustainability coordinator (50% FTE) between 2008-2011, Departmental sustainability coordinator in the Department of Business Studies (10% FTE) from 2013 onwards; - Local or regional project funding (from the Province of Flemish Brabant): activities (6) and (7). - Regional project funding (from Flemish Region): activities (1), (2), (3). - National project funding (from the National Lottery of Belgium): activity (8); - International/European funding: activity (4).

How is the initiative being evaluated? If possible, please share some of the results.	Initiatives have been evaluated in different ways: - Internal evaluation: projects are being evaluated by the research coordination department (process, outcomes, etc.); - External evaluation: for the initiatives which are funded by local, regional, national or international funding agencies are evaluated by the agency (process, outcomes, etc.); - Where possible, the outcomes of the initiatives are published in national or international publications (see references).
Link to website/ references	Information on most of the initiatives can be found in the following sources: (1) Initiative is only described in internal reports, however the following publications contains information about this initiative: Verhulst, E. and Lambrechts, W. (2014, in press). Fostering the incorporation of sustainable development into the university system. Lessons learned from a change management perspective. Journal of Cleaner Production, in press. (2) Initiative is described in: Lambrechts, W., Van den Haute, H. en Vanhoren, I. (2009). Duurzaam hoger onderwijs. Appel voor verantwoord onderrichten, onderzoeken en ondernemen [Sustainable Higher Education. Appeal for responsible education, research and operations]. LannooCampus, Leuven. Lambrechts, W., Mulà, I., Ceulemans, K., Molderez, I. and Gaeremynck, V. (2013). The integration of competences for sustainable development in higher education: an analysis of bachelor programs in management, Journal of Cleaner Production, 48 (2013), pp. 65-73. Lambrechts, W., Mulà, I. and Van den Haute, H. (2010). The integration of sustainability in competence based higher education. Using competences as a starting point to achieve sustainable higher education. ERSCP-EMSU, Delft. Lambrechts, W., Van den Haute, H. and Vanhoren, I. (2008). Making progress towards sustainable higher education: design of an implementation model with guiding principles. Businet Annual Conference (Palma de Majorca, 12-15 November 2008). (3) Initiative is described in: Aertsen, C (ed.). 2009. Designing Change. Social Marketing voor Duurzaamheidstransities. Uitgeverij Change Designers, Brussel. (4) Initiative is available online at: www.responsiblebusiness.eu (5) Initiative is decribed in: Lambrechts, W. and Ceulemans, K. (2013). Sustainability Assessment in Higher Education. Evaluating the Use of the Auditing Instrument for Sustainability in Higher Education (AISHE) in Belgium. In: Caeiro, S., Leal Filho, W., Jabbour, C., Azeiteiro, U. (Eds.). Sustainability Assessment Tools in Higher Education Institutions. Mapping Trends and Good Practice Around the World. Springer, pp. 157-174.

	(6) Initiative is decribed in: Lambrechts, W. and Van Liedekerke, L. (2014, in press). Using ecological footprint analysis in higher education: campus operations, policy development and educational purposes. Ecological Indicators, in press. And online: http://sustainablehighereducation.com/2013/10/27/ecological-footprint-of-higher-education-the-numbers-tell-the-tale/ (7) Initiative is decribed in: De Cort, A., Lambrechts, W. and Rymenams, S. (2014). Toolkit SD-Competencies for Marketing Teachers (Markedo). Poster presented at the CoDeS Conference "Designing a Sustainable Future through School Community Collaboration", Barcelona, Spain, 21-23 May 2014. And online: http://sustainablehighereducation.com/2014/03/29/markedo/ (8) Initiative is decribed online: http://sustainablehighereducation.com/projects/ (9) Initiative is ongoing, information will be available at http://sustainablehighereducation.com/

Competences for educators in education for sustainable development

Please complete this grid for each good practice you describe. Reflecting the good practice, please fill the blank fields by reflecting competences that are being developed through the initiative (and/or by describing concrete activities that promote the development of competences). The grid is based on the UNECE ESD Competences for Educators (2011); the framework can be found in the annex to this document.

Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	***Preliminary note: (1) refers to the project ECHOes of Sustainability, (2) refers to the project DOHO, etc.)*** • The basics of systems thinking ways in which natural, social and economic systems function and how they may be interrelated: (7) • Their personal world view and cultural assumptions and seek to understand those of others: (7) • The connection between sustainable futures and the way we think, live and work: (1), (2), (3), (4), (5), (6), (7), (8), (9) • Their own thinking and action in relation to sustainable development: (1), (5), (8) , (9)	• The root causes of sustainable development: (9) • That sustainable development is an evolving concept: (9) • The urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability: (3), (4), (7), (9) • The importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change: (3), (4), (7) • The importance of preparedness for the unforeseen and a precautionary approach: (7)	• Why there is a need to transform the education systems that support learning: (1), (2), (3), (4), (5), (7), (8), (9) • Why there is a need to transform the way we educate/learn, why it is important to prepare learners to meet new challenges: (1), (2), (3), (4), (5), (7), (8), (9) • The importance of building on the experience of learners as a basis for transformation: (3) • How engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice: (3)
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• Connect the learner to their local and global spheres of influence: (3)	• Critically assess processes of change in society and envision sustainable futures: (2), (3), (7), (9) • Communicate a sense of urgency for change and inspire hope: (3), (4), (9) • Use the natural, social and built environment, including their own institution, as a context and source of learning: (1), (2), (5), (6), (8)	• Why there is a need to transform the education systems that support learning: (1), (2), (4), (5), (7), (8), (9) • Why there is a need to transform the way we educate/learn: (1), (2), (4), (5), (7), (8), (9) • Why it is important to prepare learners to meet new challenges: (3), (4), (7), (9) • The importance of building on the experience of learners as a basis for transformation: (3) • How engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice: (3), (6)

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	•	•	• Challenge unsustainable practices across educational systems, including at the institutional level: (1), (2), (5), (6), (7), (8) • Help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist: (3)
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	•	• Is motivated to make a positive contribution to other people and their social and natural environment, locally and globally: (2), (3), (7)	• Is a facilitator and participant in the learning process: (9) • Is a critically reflective practitioner: (7), (9) • Inspires creativity and innovation: (2), (3), (4), (7)

BELGIUM – EXAMPLE 2	
Title of the professional development initiative	**Learning networks ("Lerende netwerken") – Ecocampus**
Who is the facilitator or leading institution?	Ecocampus (Flemish Government, Department of Environment, Nature and Energy)
Who participates?	educators from higher education institutions, professionals/experts from the profit and non-profit sector
How many people can participate?	about 15-25 participants/session
What type of professional development is it?	☐ Short course ☒ Teaching support initiative ☒ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	four active learning networks: for educators active in the field of: - social work: created in 2008 - teacher training: created in 2010 - business studies: active from 2008 till 2010, new start in 2013 - engineering: created in 2008
How long does it take?	2- 3 meetings per year, ½ day each
What is the purpose and objective?	Many educators in higher education are aware of the fact that SD has to find its place in the curriculum. However, they often lack the knowledge and the skills to implement SD properly in their courses. Notions like systems thinking, for instance, are considered as too complex and too abstract. Moreover, curricula are already so dense that educators seem not to have the time to work SD competences in their courses. The learning networks want to create opportunities for educators to fill this gap 1) by offering the **knowledge** they need to implement SD in their courses; 2) by presenting some **good practices/practical examples** (with special focus on **didactic approaches** to facilitate SD in the classroom; especially in the network for teacher trainers); 3) by **exchanging experiences** with experts and colleagues.
What is the ambition (idea behind the initiative)?	With this initiative, Ecocampus wants to embed SD on a more structural basis in Flemish higher education.
What is the professional development initiative about (focus, thematic	The thematic entry point fit the specialisation of the educators who participate in the different learning networks: e.g. - **social work:** the use/distribution of raw materials, empowerment, active citizenship, new work models, etc. - **teacher training:** focus on SD competences of future teachers (as defined in

entry point)?	the ESD competence profile: http://www.vlaanderen.be/nl/publicaties/detail/educatie-voor-duurzame-ontwikkeling-edo#bt, based upon the UNECE framework) and didactic approaches to teach them to pupils in primary and secondary school - **business studies:** transition management, energy saving, corporate responsibility, stakeholder management, etc. - **engineering:** sustainable living, sustainable building, energy consumption, product innovation, etc.
What is the pedagogical approach?	Basically, the meetings consist of three parts: - **theoretical part – focus on knowledge building/theoretical frameworks**: e.g. invited speaker with academic background - **practical part/workshop – focus on methodologies to put this knowledge into practice, presentation of good practices:** e.g. case study / presentation from a NGO active in the field; visit to a (non-)profit organization, etc. - **discussion**: exchange of knowledge and experiences between the participants
What has attracted the participants to take part in the initiative?	Before the start of the learning networks, ESD was mainly the core business of some NGOs and other non-profit organizations. The concept of the learning networks tries to formulate an answer to the specific needs of educators in higher education, from various disciplines, and this in a rather informal, easily accessible context.
What is valuable and interesting about this initiative? Why is it worth doing it?	excellent opportunity to meet experts from the field, to exchange good practices, to visit organisations that integrate SD in their daily practice, etc. Hands-on initiative.
How is the initiative being funded?	Ecocampus is a project funded by the Flemish government. It started in 2008 for a term of three years, and was renewed in 2011 for another three years. At the end of 2014, the Flemish government will decide on the continuation of the project.
How is the initiative being evaluated? If possible, please share some of the results.	There is no formal evaluation. However, after each meeting, participants are invited to give their feedback. Overall, participant's reactions are very positive: the content of the meetings is seen as very useful for the own course practice. The main obstacle is the practical organization of the meetings: the meetings take place in Brussels, which means that some participants have to travel a lot to attend them. Moreover, educators attend the meetings on a voluntary basis, which is an advantage (intrinsic motivation) and a disadvantage at the same time (they attend the meetings in their "spare time").
Link to website/ references	- Learning network for social work: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/sociaal-werk/thematisch-lerend-netwerk-orientatie-van-sociaal-werk-op-duurzame-ontwikkeling - Learning network for teacher trainers: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/lerarenopleiding/thematisch-lerend-netwerk-integratie-van-duurzame-ontwikkeling-in-de-lerarenopleiding - Learning network for business studies: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/ler

| | ende-netwerken/economie/lerend-netwerk-economie |
| | - Learning network for engineering: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/ingenieurswetenschappen/thematisch-lerend-netwerk-ingenieurswetenschappen |

Competences for educators in education for sustainable development

Please complete this grid for each good practice you describe. Reflecting the good practice, please fill the blank fields by reflecting competences that are being developed through the initiative (and/or by describing concrete activities that promote the development of competences). The grid is based on the UNECE ESD Competences for Educators (2011); the framework can be found in the annex to this document.

Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	**Preliminary note:** **The main focus of the learning networks is not to work on SD competences as such (except for the program for teacher trainers), but on content and knowledge transfer. Hence, we can state that the following aspects are still present in the learning networks, although often in a rather implicit way.** theoretical presentations: • the basics of systems thinking • ways in which natural, social and economic systems function and how they may be interrelated • the interdependent nature of relationships within the present generation and between generations, as well as those between rich and poor and between humans and nature • their personal world view and cultural assumptions and seek to understand those of others • the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	theoretical presentations: • the root causes of unsustainable development • that sustainable development is an evolving concept • the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability • the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change • the importance of preparedness for the unforeseen and a precautionary approach • the importance of scientific evidence in supporting sustainable development	• why there is a need to transform the education systems that support learning • why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges • the importance of building on the experience of learners as a basis for transformation • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	workshops/practical part of the meetings: • create opportunities for sharing ideas and experiences from different disciplines/places/cultures/generations without prejudice and preconceptions • work with different perspectives on dilemmas, issues, tensions and conflicts • connect the learner to their local and global	• critically assess processes of change in society and envision sustainable futures • communicate a sense of urgency for change and inspire hope • facilitate the evaluation of potential consequences of different decisions and actions • use the natural, social and built environment, including their own institution, as a context and	• facilitate participatory and learner-centred education that develops critical thinking and active citizenship • assess learning outcomes in terms of changes and achievements in relation to sustainable development

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
	spheres of influence	source of learning	
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	depending on the meeting/workshop/visit: • actively engage different groups across generations, cultures, places and disciplines	• facilitate the emergence of new worldviews that address sustainable development • encourage negotiation of alternative futures	• challenge unsustainable practices across educational systems, including at the institutional level • help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	• is inclusive of different disciplines, cultures and perspectives, including indigenous knowledge and worldviews	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally • is willing to take considered action even in situations of uncertainty	• is willing to challenge assumptions underlying unsustainable practice • is a facilitator and participant in the learning process • is a critically reflective practitioner • inspires creativity and innovation • engages with learners in ways that build positive relationships

BELGIUM – EXAMPLE 3	
Title of the professional development initiative	**EHE kit: toolkit Ecodesign in Higher Education** (available in Dutch and in English)
Who is the facilitator or leading institution?	OVAM (Openbare Vlaamse Afvalstoffenmaatschappij; Waste company of the Flemish government) "The EHE kit was developed by Dr. Karine Van Doorsselaer, Engineer, and Dr. Elli Verhulst from the Artesis University College Antwerp (as of October 2013, University of Antwerp), Department of Design Sciences, as commissioned by OVAM, and was substantially supported by the staff from the Ecocampus project from the Government of Flanders' Department of Environment, Nature and Energy and a variety of experts in higher education. The ECHO Expertise Centre from the University of Antwerp offered support with advice about activating teaching methods." (EHE kit, Guide, p.4)
Who participates?	educators in higher education institutions, especially in programs that include courses related to "ecodesign" (eg. product development, but also commercial engineering and industrial sciences, with a specialisation in electro-mechanics
How many people can participate?	(1) the toolkit itself can be used individually or in a team of teachers/lecturers (2) workshops offered by OVAM: about 20 participants/workshop (depends on the number of lecturers involved in the program)
What type of professional development is it?	☐ Short course ☒ Teaching support initiative ☒ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	(3) The toolkit was published in 2013 as a result of a one year project conducted in 2012. (4) The workshops are still going on, at the request of higher education institutions, who want to work with the EHE kit, or (mostly) on the initiative of OVAM, who approaches higher education institutions in order to promote the EHE kit. Up till now, four workshops and one presentation have been organised in higher education institutions, mainly university colleges.
How long does it take?	(1) EHE kit: / (2) workshop: 2-3 hours
What is the purpose and objective?	- raise awareness (cf. the need to develop sustainable products and the problems/obstacles/opportunities etc. that go with it) - curriculum screening (cf. learning content matrix: to what extent are the subjects and competences referred to in the EHE toolkit already present in the curriculum?) - integration of a specific course or topic in the curriculum (how can the subjects and competences described in the EHE toolkit be integrated in the curriculum?);

	- staff induction (provide the staff with some concrete tools and materials to implement SD in their courses/in the curriculum)
What is the ambition (idea behind the initiative)?	(1) "The students of today are the professionals of tomorrow. They obtain values, standards, skills and knowledge at school, among others. Education, and certainly higher education, is thus important for a sustainable society; the graduates end up in careers and functions where decisions are taken at many levels. The economic and ecological problems in our society compel the government, companies and consumers to take specific steps towards a sustainable society. Sustainability, in the broadest sense of the concept, should therefore constitute the guiding framework for education throughout the entire educational system. One of the paths to a sustainable society is ecodesign: designing products that are sustainable through their entire life cycle. Designing innovative, sustainable products does not depend solely on the designer. It is a collective process that is reinforced by a multidisciplinary approach. Everyone in the organisation must be fully aware of the intention to deliver sustainable products.
	A short survey of Flemish companies teaches us that principally engineers or holders of a degree from an economic specialisation decide about the design and production process, and about the value chain of sustainable products and services, together with employees with a degree from a specific design programme. Ecodesign is thus clearly not only relevant for designers, but also for marketers, economists, process engineers or business managers. In order to provide ecodesign with greater uptake in the business world, knowledge, insight, skills and above all the attitude focused on ecodesign must be anchored in relevant education packages so that not only product designers, but also other professionals start to consider the fundamental principles of ecodesign. There is already steadily increasing attention for integrating sustainability into higher education. Still, there is little information specifically about ecodesign to be found. The EHE kit attempts to fill this void."
	(EHE kit, Guide, p. 5-6)
	(2) The workshops offered by OVAM are organised in order to promote the EHE kit in higher education institutions. Their ambition is threefold:
	- raising awareness amongst the teaching staff (the importance of/need for sustainable product development);
	- knowledge transfer (which themes can be addressed?);
	- experience exchange between the participants.
What is the professional development initiative about (focus, thematic entry point)?	Since the EHE kit mainly addresses educators in programs in which product development is an important matter, the content proposed in the EHE toolkit focusses on SD in the context of product development. More specifically, the authors of the EHE kit chose to develop the

	following 18 themes:
	LC. 1 Biomimicry
	LC. 2 Ecodesign tools
	LC. 3 Eco labels
	LC. 4 Effects on people and environment
	LC. 5 End of life
	LC. 6 Energy and resources
	LC. 7 Consumer behaviour
	LC. 8 Introduction to ecodesign
	LC. 9 Closing cycles
	LC. 10 Life cycle thinking
	LC. 11 Corporate Social Responsibility (CSR)
	LC. 12 Materials
	LC. 13 Product-service combinations
	LC. 14 Cleaner production
	LC. 15 Systems thinking
	LC. 16 Future thinking
	LC. 17 Packaging and distribution
	LC. 18 Legislation concerning ecodesign
What is the pedagogical approach?	(1) Concretely, the EHE kit consists of the following parts: - a **guide** that explains the purpose, the content and the use of the toolkit; - a **set of cards**: 1) learning content cards that describe the various relevant themes connected with ecodesign; 2) teaching method cards that describe teaching methods that can be applied for integrating ecodesign in the program; 3) practical example cards which provide practical examples for specific learning content and teaching methods and can serve as inspiration for applying ecodesign in one's own program. - **worksheets** that make it possible for the educator to get started on its own: 1) learning content matrix: after analysis, the competences-learning content matrix provides an overview of the connections between the different competences and the potential themes (learning content) concerning ecodesign; 2) a blank example card indicates a basic structure to the program supervisor or teacher to make his or her own connection between a certain course, an ecodesign theme and a certain teaching method. (2) The workshops are structured as follows: - **introduction**: ecodesign as seen by OVAM (= 18 strategies selected by OVAM in order to develop sustainable products); - **presentation of the EHE kit** - **learning content matrix**: by completing the matrix, lecturers have a better overview of the presence of ecodesign/SD in the different courses, as well as of the opportunities ("gaps") to implement ecodesign/SD more explicitly in their programs. The focus in this part of the workshop is on the exchange of experiences between the different participants so that they can also learn from each other (and not only from the OVAM staff member who conducts the workshop).
What has attracted the	(1) The EHE kit results to be a very flexible, practical tool, that is easy

participants to take part in the initiative?	to use thanks to the many guidelines and concrete examples that are provided. The tool can be acquired very easily on the website of OVAM, as a digital file or a printed copy. (2) The workshops help to have a better idea of the notion of ecodesign/SD in a specific curriculum. Educators not only learn to see the opportunities for implementing ecodesign better in their courses, they often come to the conclusion that their programs very often don't need a radical change, but that it can be sufficient to adapt slightly some existing themes they already address in their courses. Participants also appreciate that they can learn from their colleagues. Very often, they know which courses their colleagues teach, but they are not aware of the content of these courses. Teachers learn to look further than their own specialisation and to collaborate with others in order to implement SD more in the curriculum.
What is valuable and interesting about this initiative? Why is it worth doing it?	cf. previous section The initiative seems to come "in the right place, at the right time". The last few years, higher education is changing quite drastically in Flanders/Belgium. Universities and university colleges work more closely together in university associations, and therefore often have to rethink their mission statements and programs. Furthermore, SD will be more and more a decisive factor in the accreditation process, on the same level as internationalisation and scientific research (also for professional bachelor programs). In this context, an initiative like the one proposed by OVAM is seen very positively by higher education institutions, since it helps them to concretise the idea of SD in their institution.
How is the initiative being funded?	OVAM receives a budget from the Flemish government that can be used for initiatives in the field of (research in) ecodesign.
How is the initiative being evaluated? If possible, please share some of the results.	There is no official or formal evaluation of the EHE kit and the workshops. However, the (informal) feedback OVAM received from the users and participants is positive. Up till now, more than 160 EHE kits have been distributed. The website stands for about 1000 single page views. Brussels and Wallonia have already shown their interest in the initiative. They are planning to publish a French version of the EHE kit as well (in collaboration with OVAM).
Link to website/ references	http://www.ecodesignlink.be/en/tools/ehe-kit#bt (English version) http://www.ecodesignlink.be/nl/ecodesign-tools/eho-kit#bt (Dutch version)

Competences for educators in education for sustainable development

Please complete this grid for each good practice you describe. Reflecting the good practice, please fill the blank fields by reflecting competences that are being developed through the initiative (and/or by describing concrete activities that promote the development of competences). The grid is based on the UNECE ESD Competences for Educators (2011); the framework can be found in the annex to this document.

Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• the basics of systems thinking • ways in which natural, social and economic systems function and how they may be interrelated • the interdependent nature of relationships within the present generation and between generations, as well as those between rich and poor and between humans and nature • their personal world view and cultural assumptions and seek to understand those of others • the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	• the root causes of unsustainable development • that sustainable development is an evolving concept • the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability • the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change • the importance of preparedness for the unforeseen and a precautionary approach • the importance of scientific evidence in supporting sustainable development	• why there is a need to transform the education systems that support learning • why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges • the importance of building on the experience of learners as a basis for transformation • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• create opportunities for sharing ideas and experiences from different disciplines/places/cultures/generations without prejudice and preconceptions • work with different perspectives on dilemmas, issues, tensions and conflicts • connect the learner to their local and global spheres of influence	• critically assess processes of change in society and envision sustainable futures • communicate a sense of urgency for change and inspire hope • facilitate the evaluation of potential consequences of different decisions and actions • use the natural, social and built environment, including their own institution, as a context and source of learning	• facilitate participatory and learner-centred education that develops critical thinking and active citizenship • assess learning outcomes in terms of changes and achievements in relation to sustainable development
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	• actively engage different groups across generations, cultures, places and disciplines → **to a lesser extent**	• facilitate the emergence of new worldviews that address sustainable development → to a lesser extent • encourage negotiation of alternative futures	• challenge unsustainable practices across educational systems, including at the institutional level • help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	• is inclusive of different disciplines, cultures and perspectives, including indigenous knowledge and worldviews → **to a lesser extent**	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally • is willing to take considered action even in situations of uncertainty	• is willing to challenge assumptions underlying unsustainable practice • is a facilitator and participant in the learning process • is a critically reflective practitioner • inspires creativity and innovation • engages with learners in ways that build positive relationships

FRANCE – EXAMPLE 1	
Title of the professional development initiative	**OPEDUCA**
Who is the facilitator or leading institution?	RCE Bretagne
Who participates?	Françoise Laveuve
How many people can participate?	5 lecturers
What type of professional development is it?	☐ Short course ☐ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☒ Others *(please specify)*: Master setting up
When does the initiative take place? *(Please only list initiatives since 2005.)*	2014-2015
How long does it take?	2 years
What is the purpose and objective?	Master's degree for High-school teachers
What is the ambition (idea behind the initiative)?	Develop ESD
What is the professional development initiative about (focus, thematic entry point)?	ESD, not otherwise specify
What is the pedagogical approach?	No information at yet
What has attracted the participants to take part in the initiative?	It is an UE initiative
What is valuable and interesting about this initiative? Why is it worth doing it?	Optaining a Qualification in the form of a University degree
How is the initiative being funded?	UE
How is the initiative being evaluated? If possible, please share some of the results.	Ongoing project, no information at yet
Link to website/ references	http://www.rce-bretagne.fr/OPEDUCA.html

Competences for educators in education for sustainable development

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	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• Interdependent nature of relationship within the present generation and between generations	• The importance of problem setting and creative thinking	•
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• Create opportunities for sharing ideas and experiences from different disciplines, places, cultures.	•	• Facilitate participatory and learner-centered education that develops critical thinking
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	•	•	•
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	•	•	•

FRANCE – EXAMPLE 2	
Title of the professional development initiative	**Sustainability Literacy test**
Who is the facilitator or leading institution?	CPU/CGE
Who participates?	Higher institutions and universities
How many people can participate?	No limit
What type of professional development is it?	☐ Short course ☐ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☒ Others *(please specify)*: test for students
When does the initiative take place? *(Please only list initiatives since 2005.)*	2014
How long does it take?	6 months
What is the purpose and objective?	To highlight the importance of ESD skills for students
What is the ambition (idea behind the initiative)?	To introduce ESD in the process of certification of institutions and include it in teachers skills
What is the professional development initiative about (focus, thematic entry point)?	To develop ESD Skills
What is the pedagogical approach?	none
What has attracted the participants to take part in the initiative?	The uniqueness of that kind of initiative
What is valuable and interesting about this initiative? Why is it worth doing it?	Development of a standard test in the form of multiple choice questions available online
How is the initiative being funded?	CPU/CGE/Kedge (private higher education institution)
How is the initiative being evaluated? If possible, please share some of the results.	Number of students that the test
Link to website/ references	http://www.sustainabilitytest.org/

Competences for educators in education for sustainable development

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	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• The basics of systems thinking • Their personal world view and cultural assumptions	• The roots causes of unsustainable development	• Why there is a need to transform the education
Learning to do *The initiative offers an opportunity for the educator to be able to….*	•	•	•
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	•	•	•
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	•	•	•

FRANCE – EXAMPLE 3	
Title of the professional development initiative	**The process of elaboration of a reference document on sustainable development competencies for Higher Education**
Who is the facilitator or leading institution?	CPU / CGE (conferences of High Schools and University's Presidents)
Who participates?	CPU/CGE/researchers/ employers representative organizations / students representative organizations
How many people can participate?	It concerns all educators from all disciplines
What type of professional development is it?	☐ Short course ☐ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☒ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	Since 2013
How long does it take?	1 year
What is the purpose and objective?	Establishing a set of ESD skills and competences for educators to be used in various curricula
What is the ambition (idea behind the initiative)?	Setting a framework and a methodology for the acquisition of relevant skills
What is the professional development initiative about (focus, thematic entry point)?	The focus point is that educators have to change their way of learning sustainable development, including a holistic and systemic approach.
What is the pedagogical approach?	The methodological approach of the process enables exchanges between stakeholders and development of a common culture. The result is a reference document that could help educators to adopt new behaviour towards ESD and also new teaching methodologies.
What has attracted the participants to take part in the initiative?	The lack of a reference document, which has led to a variety of practices
What is valuable and interesting about this initiative? Why is it worth doing it?	The document was elaborated, not only by higher education professionals of various disciplinary backgrounds, but also with the participation of stakeholders (namely professional organisations), as it is supposed to overcome the complexity of the current situation. The process of co-construction was also an opportunity to generate a common culture and possibly a common language about the principles of sustainable development.
How is the initiative being funded?	CGE/CPU (governing bodies of the two main categories of Higher Education institutions)
How is the initiative being evaluated? If possible, please share some of the results.	This initiative is meant to be assessed through auditing both the framework and the guidelines. This will be included in a second phase.
Link to website/ references	Presented at the ESD conference, in Nagoya, Japan, in November.

Competences for educators in education for sustainable development

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	HOLISTIC APPROACH *Integrative thinking and practice*	*ENVISIONING CHANGE* *Past, present and future*	*ACHIEVING TRANSFORMATION* *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• the basics of systems thinking • ways in which natural, social and economic systems function and how they may be interrelated • the interdependent nature of relationships within the present generation and between generations, as well as those between rich and poor and between humans and nature • their personal world view and cultural assumptions and seek to understand those of others • the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	• that sustainable development is an evolving concept • the urgent need for change from unsustainable practices towards advancing quality of life, equity, solidarity, and environmental sustainability • the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change • the importance of preparedness for the unforeseen and a precautionary approach	• why there is a need to transform the education systems that support learning • why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges • the importance of building on the experience of learners as a basis for transformation • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• Create opportunities for sharing ideas and experiences • Work with different perspectives on dilemmas, issues, tensions and preconceptions • Connect the learner to their local and global spheres of influence	• critically assess processes of change in society and envision sustainable futures • facilitate the evaluation of potential consequences of different decisions and actions • use the natural, social and built environment, including their own institution, as a context and source of learning	• facilitate participatory and learner-centred education that develops critical thinking and active citizenship • assess learning outcomes in terms of changes and achievements in relation to sustainable development
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	• actively engage different groups across generations, cultures, places and disciplines	• facilitate the emergence of new worldviews that address sustainable development • encourage negotiation of alternative futures	• challenge unsustainable practices across educational systems, including at the institutional level • help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	• is inclusive of different disciplines, cultures and perspectives, including indigenous knowledge and worldviews	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally • is willing to take considered action even in situations of uncertainty	• is willing to challenge assumptions underlying unsustainable practice • is a facilitator and participant in the learning process • is a critically reflective practitioner • inspires creativity and innovation • engages with learners in ways that build positive relationships

GERMANY – EXAMPLE 1	
Title of the professional development initiative	**Teaching for the Leuphana semester**
Who is the facilitator or leading institution?	Leuphana University of Lüneburg, coordinator of the module "Responsibility in Science"
Who participates?	University educators at Leuphana University, who hold lectures for the module "Responsibility in Science" (and the modules "Science and Methods" and "Science and History") at the Leuphana semester (1st semester for Bachelor students)
How many people can participate?	30
What type of professional development is it?	☐ Short course ☒ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	Once a year in September; since 2007
How long does it take?	3 days
What is the purpose and objective?	• To inform educators about the characteristics and specialities of the Leuphana semester • To prepare educators for teaching in the Leuphana semester, especially in the module "Responsibility in Science" • To learn about the approach of undergraduate research • To intensively work on common (teaching) challenges
What is the ambition (idea behind the initiative)?	(see above)
What is the professional development initiative about (focus, thematic entry point)?	The seminar focuses on ESD connected with undergraduate research. The participants learn about requirements, aims and challenges of the modules "Responsibility in Science" of the first semester. During this semester students shall experience a research cycle while working in interdisciplinary teams. Students present the results of the interdisciplinary project seminars at a conference week at the end of the semester, which is a huge event and organised by the students themselves. Contents deal with: • Sustainable development • Responsibility in science • Sustainability and action oriented teaching
What is the pedagogical approach?	• Workshop sessions, where participants experience undergraduate research as didactic concept • Exchange, peer learning and consulting • Input presentations

What has attracted the participants to take part in the initiative?	The Leuphana semester is a very special and innovative study format that demands a lot from the university educators, who need to apply for lecturing. Hence motivated people teach these modules, who might be a bit more open to new forms of teaching than other lecturers. Additionally it is expected by the organisers that educators, who teach interdisciplinary project seminars during the first semester, attend the seminar; for those who teach these seminars for the first time, it is an 'unofficial' prerequisite. The seminar always takes place at a nice (remote) location – away from university. The relaxing atmosphere plays an important role as it enables open and fresh discussion and exchange (e.g. also during breaks and dinner). At seminars at university participants hardly attend three days in a row and seem to be more stressed.
What is valuable and interesting about this initiative? Why is it worth doing it?	Both innovative teaching and learning approaches as well as sustainability are of high importance at Leuphana University. That is why during the first semester all Bachelor students attend the same lectures – independent from their study programs. Hence students learn about sustainability and responsibility in science already during their first semester, with the aim that these experiences and the thorough consideration of sustainability influence their interests in sustainability topics during their further study. The university educators need to be optimally prepared for this task.
How is the initiative being funded?	By Leuphana University and partly by the 'Innovation Incubator', a comprehensive project at the university
How is the initiative being evaluated? If possible, please share some of the results.	Feedback sessions take place at the end of the seminar as well as at the end of the semester (which is 5 months later), but it is not systematically evaluated.
Link to website/ references	-

Competences for educators in education for sustainable development

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	HOLISTIC APPROACH *Integrative thinking and practice*	*ENVISIONING CHANGE* *Past, present and future*	*ACHIEVING TRANSFORMATION* *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• A holistic understanding about concepts of sustainable development and ESD • Understand the responsibilities in science • Understand and question their own thinking and action in relation to sustainable development	• that sustainable development is an evolving concept • the urgent need for equity and responsibility in science • the importance of scientific evidence in supporting sustainable development	• why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• Apply undergraduate research and link it to ESD • Work in groups and courses together with people from different disciplines and with different perspectives	• facilitate the evaluation of potential consequences of different decisions and actions • use the natural, social and built environment, including their own institution, as a context and source of learning	• facilitate participatory and learner-centred education that develops critical thinking • assess learning outcomes in terms of changes and achievements in relation to sustainable development
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	• Concepts and methods how students can work together are directly being tested during the seminar. • Engage and motivate students	• facilitate the emergence of new worldviews that address sustainable development • encourage negotiation of alternative futures	•
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	• is inclusive of different disciplines and perspectives,	• is motivated to make a positive contribution to other people and their social and natural environment, locally and globally • is willing to take considered action even in situations of uncertainty	• From teaching to learning – the seminar questions the role of educators and sees it more as a facilitator and moderator. • is a facilitator and participant in the learning process • inspires creativity and innovation • engages with learners in ways that build positive relationships

GERMANY – EXAMPLE 2	
Title of the professional development initiative	**Systemic constellation of sustainability in Higher Education**
Who is the facilitator or leading institution?	University of Bremen, Department of Business Studies & Economics
Who participates?	Sustainability coordinators and "change agents" at higher education institutions – researchers, lecturers, staff from management and administration
How many people can participate?	At least 8, up to about 15 per course
What type of professional development is it?	☐ Short course ☐ Teaching support initiative ☒ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	From March until October 2014; it was conducted in 2013 for the first time
How long does it take?	6 days in total (4 times 1.5 days)
What is the purpose and objective?	The seminar aims at preparing sustainability coordinators at HEIs to: • better understand what sustainable development for higher education comprises, • how sustainability can be integrated in their own institutions, • better understand barriers and drivers in the implementation process, • explore alternative opportunities for integrating sustainability in HE. Although the seminar is not directly targeted at university educators, they can gain a better understanding about approaches of integrating sustainability in higher education, which is essential for ESD as well.
What is the ambition (idea behind the initiative)?	To support sustainability coordinators at HEIs in implementing sustainability in research, teaching and management
What is the professional development initiative about (focus, thematic entry point)?	The seminar contains four modules: • "Drawing the path" of sustainability in research, teaching and management (identification of the current state of sustainability integration within the HEI) • "Mobilising support" and identifying barriers and drivers of the organisational learning process towards sustainability • "Developing solutions" for projects, structures and goals of the change process towards sustainability • "Monitoring change", including tensions and challenges of the impacts the sustainability processes have.
What is the pedagogical approach?	The seminar uses the method of the systemic constellation as pedagogical approach, which allows the participants to have a closer look at the place and relevance sustainability has within their

	institution. Moreover it allows the visualisation of alternative developments as well as the identification of barriers, drivers and possible solutions for a holistic implementation of sustainability.
What has attracted the participants to take part in the initiative?	The participants view the seminar as a chance to take a different look at their tasks and the processes in their respective universities. Since many of them have recently started new jobs in the field of sustainable university development for which they do not yet have sufficient knowledge on organizational development, they aim at gathering new insights into organizational development processes.
What is valuable and interesting about this initiative? Why is it worth doing it?	Systemic constellations present an innovative approach in identifying institutional structures and relationships, and are useful for learning and emotional and cognitive experiences. Systemic constellations help the participants to gain system understanding.
How is the initiative being funded?	Workshop participants pay 760€ for the seminar (190€ per module)
How is the initiative being evaluated? If possible, please share some of the results.	Results from the systemic constellations regarding the role of university management have been analysed and will soon be published.
Link to website/ references	http://www.wiwi.uni-bremen.de/gmc/systemaufstellung.html; http://nachhaltigewissenschaft.blog.de/2013/05/14/seminarreihe-nachhaltigkeit-hochschule-aufstellen-gute-wege-schwierigem-gelaende-finden-15971693/; http://www.bne-hochschulnetzwerk.de/fileadmin/subsites/8x-0018-t-01/Seminar_Nachhaltigkeitskoordinatoren_Faltblatt.pdf

Competences for educators in education for sustainable development

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	HOLISTIC APPROACH *Integrative thinking and practice*	**ENVISIONING CHANGE** *Past, present and future*	**ACHIEVING TRANSFORMATION** *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• the basics of systems thinking • the relevance of sustainability issues within their institution • their own thinking and action in relation to sustainable development	• the importance of identifying barriers and drivers, problem setting, critical reflection and creative thinking in planning the effecting change and the implementation of sustainability in HE	•
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• work with different perspectives on the importance and holistic integration of sustainability in HE	• facilitate the evaluation of potential consequences of different decisions and actions • develop alternative approaches	•
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	• actively engage different stakeholders in a common learning process towards sustainable development	•	• help learners clarify their own and others perspectives on sustainability through dialogue and constellation work
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	•	• is motivated to make a positive contribution to the organisational development towards the integration of sustainability	•

NETHERLANDS – EXAMPLE 1	
Title of the professional development initiative	**Change Agent Training**
Who is the facilitator or leading institution?	Hobeon
Who participates?	Participants come from different parts of the organisation with different roles to become change agents in their specific department or program.
How many people can participate?	As internal training this is discussed with the organisation. Open training is offered to groups of minimum 10 participants.
What type of professional development is it?	x Short course ☐ Teaching support initiative ☐ Seminar ☐ Staff induction ☐ In-house certification for new teaching staff ☐ Mentoring/ coaching program ☐ Academic working group for university educators ☐ Work shadowing ☐ Others *(please specify)*:
When does the initiative take place? *(Please only list initiatives since 2005.)*	Tailor made training on request.
How long does it take?	3-4 full day sessions
What is the purpose and objective?	To train internal change agents to help an organisation change to a more responsible and sustainable organisation.
What is the ambition (idea behind the initiative)?	Ambition is to support organisations to become institutions that act according to principles of responsibility towards society and the future.
What is the professional development initiative about (focus, thematic entry point)?	The AISHE 2012 framework is used.
What is the pedagogical approach?	Group work mixed with individual input and individual feedback from the trainer.
What has attracted the participants to take part in the initiative?	To become a change agent in their own organisation.
What is valuable and interesting about this initiative? Why is it worth doing it?	It helps to create support for change in all sections of the organisation.
How is the initiative being funded?	Organisations pay from their staff professionalization budget.
How is the initiative being evaluated? If possible, please share some of the results.	We do not have information on this.
Link to website/ references	www.hobeon.nl

Competences for educators in education for sustainable development

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Please note that a facilitator or participant of the professional development initiative might need to support the answering of this grid.

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to know *The initiative offers an opportunity for the educator to understand….*	• the connection between sustainable futures and the way we think, live and work • their own thinking and action in relation to sustainable development	• the importance of problem setting, critical reflection, visioning and creative thinking in planning the future and effecting change • the importance of preparedness for the unforeseen and a precautionary approach •	• why there is a need to transform the education systems that support learning • why there is a need to transform the way we educate/learn • why it is important to prepare learners to meet new challenges • the importance of building on the experience of learners as a basis for transformation • how engagement in real-world issues enhances learning outcomes and helps learners to make a difference in practice
Learning to do *The initiative offers an opportunity for the educator to be able to….*	• create opportunities for sharing ideas and experiences from different disciplines/places/cultures/generations without prejudice and preconceptions • work with different perspectives on dilemmas, issues, tensions and conflicts • connect the learner to their local and global spheres of influence	• critically assess processes of change in society and envision sustainable futures • communicate a sense of urgency for change and inspire hope • facilitate the evaluation of potential consequences of different decisions and actions • use the natural, social and built environment, including their own institution, as a context and source of learning	• facilitate participatory and learner-centred education that develops critical thinking and active citizenship • assess learning outcomes in terms of changes and achievements in relation to sustainable development
Learning to live together *The initiative offers an opportunity for the educator to work with others in ways that….*	•	•	• challenge unsustainable practices across educational systems, including at the institutional level • help learners clarify their own and others worldviews through dialogue, and recognize that alternative frameworks exist

	HOLISTIC APPROACH *Integrative thinking and practice*	ENVISIONING CHANGE *Past, present and future*	ACHIEVING TRANSFORMATION *People, pedagogy and education systems*
Learning to be *The initiative offers an opportunity for the educator to be someone who….*	•	•	• is willing to challenge assumptions underlying unsustainable practice • is a facilitator and participant in the learning process • is a critically reflective practitioner •

SWITZERLAND

At the moment no established "leading practices of ESD professional development opportunities" can be identified for Switzerland that might serve as best practice. But there are some projects currently running with a great potential. By the end of 2014 experiences and results will be available. Furthermore, there is at least one university in Switzerland planning to develop and implement such an opportunity in the framework of the third call of the "Sustainable Development at Universities Programme". By the end of 2014 further details will be available.

ANNEX 4 – List of resources

	List of resources
Austria	Websites (all websites accessed in March and April 2014):

Websites (all websites accessed in March and April 2014):
- Websites of all universities, universities of applied sciences and several private universities
- UN Decade Office of the Austrian Commission for UNESCO (http://www.dekadenbuero.at/)
- UNESCO International (**http://www.unesco.org/education/tlsf/**)
- Federal Ministry of Science, Research and Economy. (http://wissenschaft.bmwfw.gv.at/bmwfw/wissenschaft-hochschulen/)
- Alliance of Sustainable Universities in Austria (http://www.openscience4sustainability.at/lehre/ueber-uns/)
- Copernicus Alliance: International network (http://www.copernicus-alliance.org/)
- Hochschulkonferenz – Arbeitsgruppe zu Qualität in der Lehre (http://www.hochschulplan.at/?page_id=338#starkung-der-qualitat-der-hochschulischen-lehre)
- Forum Umweltbildung for Sustainable Development (http://www.umweltbildung.at/)
- Regional Center of Expertise Graz-Styria (http://regional-centre-of-expertise.uni-graz.at/)
- Competence Center for Sustainability. Vienna University of Economics and Business (http://www.wu.ac.at/sustainabilitycenter)
- Regional Center of Expertise. University of Graz (http://regional-centre-of-expertise.uni-graz.at)
- Center for Global Change and Suatainability. Vienna of Natural Resources and Life Sciences Vienna (http://www.boku.ac.at/wissenschaftliche-initiativen/zentrum-fuer-globalen-wandel-nachhaltigkeit)
- Centre for education and continuing education. University of Graz (https://online.uni-graz.at/kfu_online/wbMitteilungsblaetter.display?pNr=433823)
- OpenScience4Sustainability. Alliance of Sustainable Universities in Austria in cooperation with the Federal Ministry of Science, Research and Economy (http://www.openscience4sustainability.at/lehre/prinzipien-der-nachhaltigkeit/)
- Sustainability4U. University of Graz, Graz University of Technology, Medical University of Graz, University of Music and Performing Arts Graz (http://www.sustainability4u.at/)
- UNI for LIFE. University of Graz (http://www.uniforlife.at/interne-weiterbildung/)
- Centre for Teaching Competence. University of Graz (https://www.uni-graz.at/en/teaching/services/didactics-in-higher-education/centre-for-teaching-competence/)
- Teaching Day. University of Natural Resources and Life Sciences Vienna (http://www.boku.ac.at/lehre/aktuelles/tag-der-lehre-2013/)
- Doctoral Scool Sustainable Development. University of Natural Resources and Life Sciences Vienna (http://dokne.boku.ac.at/?lang=en)
- Universitätslehrgang BINE - Bildung für Nachhaltige Entwicklung – Innovationen in der LehrerInnenbildung. Alpen-Adria-Universität Klagenfurt (http://ius.uni-klu.ac.at/lehre_und_beratung/lehrgaenge/bine/)
- 12 ECTS Elective course module Sustainable Development. Alpe Adria Universität Klagenfurt
- (http://www.uni-klu.ac.at/nachhaltigkeit/inhalt/253.htm)
- Sustainicum Collection. University of Natural Resources and Life Sciences Vienna, University of Graz, Graz University of Technology (http://www.sustainicum.at)
- PLUS Green Campus. University of Salzburg (http://www.uni-salzburg.ac.at/index.php?id=28444)
- Uni Graz – Hospitation. University of Graz (http://lehrkompetenz.uni-graz.at/de/lehre-und-

	weiterbildung/kollegiale-hospitation/kollegiale-hospitationen-201314/)
	- Sustainability Controversies and Future Lectures. Vienna University of Economics and Business (http://www.wu.ac.at/sustainabilitycenter/events)
	Documents:
	- BMWFW. Wissenschaft & Hochschulen. (http://wissenschaft.bmwfw.gv.at/bmwfw/wissenschaft-hochschulen/universitaeten/gesamtuebersicht/)
	- Uni:data. Studierende in Österreich. (https://oravm13.noc-science.at/apex/f?p=103:36:0::NO:::)
	- Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, 2008. Austrian Strategy for Education for Sustainable Development (http://www.bmukk.gv.at/medienpool/18299/bine_strategie.pdf)
	- The Austrian Strategy for Sustainable Development (https://www.nachhaltigkeit.at/assets/customer/Downloads/Strategie/strategie020709_en.pdf)
	- The Austrian national implementation report of the UNECE Strategy on ESD (as of 2006): (http://www.bmukk.gv.at/medienpool/26960/bine_unece_report_2006.pdf)
	- The Austrian national implementation report of the UNECE Strategy on ESD (2010): (http://www.umweltbildung.at/cgi-bin/dekadenbuero/af.pl?contentid=12074)
	- Bundesgesetz über die Organisation der Universitäten und ihre Studien (Universitätsgesetz 2002) (http://www.ris.bka.gv.at/Dokumente/BgblPdf/2002_120_1/2002_120_1.pdf)
	- Evaluationsprozess (http://www.bmukk.gv.at/medienpool/19391/bine_initiativen_10.pdf)
	- Alliance of Sustainable Universities in Austria. Handbuch Nachhaltigkeitsstrategie. (http://www.openscience4sustainability.at/wp-content/uploads/2013/11/Handbuch_Nachhaltigkeitskonzept_AnU.pdf)
	- Performance agreements of the universities
	- Intensivlehrgang Nachhaltigkeit (http://www.salzburgerbildungswerk.at/files/intensivlehrgang_nachhaltigkeit_2012_2013.pdf)
	- Universitätslehrgang BINE - Bildung für Nachhaltige Entwicklung – Innovationen in der LehrerInnenbildung. Uni Klagenfurt (http://www.umweltbildung.at/cms/download/1011.pdf)
	- Centre for Teaching Competence. University of Graz (http://static.uni-graz.at/fileadmin/lehrkompetenz/files/A_06-LF_Did_Hochschuldidaktische_Ausbildung_SoSe_13.pdf)
Belgium	**Websites & downloadable publications**
	- Accreditation process Higher Education: http://www.nvao.net/nieuw_accreditatiestelsel_vlaanderen
	- AESHE audit: http://www.springer.com/energy/energy+efficiency/book/978-3-319-02374-8
	- ALERT-net: http://www.alertnetwerk.be
	- Ecocampus: http://ecocampus.lne.be
	- Ecocampus, Learning network for social work: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/sociaal-werk/thematisch-lerend-netwerk-orientatie-van-sociaal-werk-op-duurzame-ontwikkeling
	- Ecocampus, Learning network for teacher trainers: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/lerarenopleiding/thematisch-lerend-netwerk-integratie-van-duurzame-ontwikkeling-in-de-lerarenopleiding
	- Ecocampus, Learning network for business studies: http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/economie/lerend-netwerk-economie
	- Ecocampus, Learning network for engineering:

http://www.lne.be/doelgroepen/onderwijs/ecocampus/acties/netwerken/lerende-netwerken/ingenieurswetenschappen/thematisch-lerend-netwerk-ingenieurswetenschappen

- Ecocampus, reflection instrument on SD: http://www.lne.be/themas/natuur-en-milieueducatie/algemeen/edo/docs/Flag_totaal_klein_E.pdf/view
- EHE kit – Toolkit Ecodesign in Higher Education: http://www.ecodesignlink.be/en/tools/ehe-kit#bt and http://www.ecodesignlink.be/nl/ecodesign-tools/eho-kit#bt
- ESD-platform: http://www.lne.be/themas/natuur-en-milieueducatie/algemeen/edo/edo-overleg
- Flanders Tourism, **L**earning network Sustainable and innovative tourism: http://www.toerismevlaanderen.be/evenement/lerend-netwerk-duurzaam-en-innovatief-toerisme-duurzaam-toerisme-als-communicatie#bt
- Flemish Implementation Plan for ESD: http://www.lne.be/themas/natuur-en-milieueducatie/algemeen/edo/docs/edo_plan_090515
- Flemish Strategy for Sustainable Development: http://www.vlaanderen.be/nl/publicaties/detail/visie-2050-vlaamse-strategie-duurzame-ontwikkeling-2010-2014#bt
- Ghent University, Memorandum Sustainability: http://www.ugent.be/nl/univgent/waarvoor-staat-ugent/verklaringen/duurzaamheidsvisie/transitie
- KHLeuven, Markedo: http://sustainablehighereducation.com/2014/03/29/markedo/
- Memorandum of the Education Department 2009-2014*: http://www.ond.vlaanderen.be/beleid/nota/2009-2014.htm#bt*
- Rebel: http://www.responsiblebusiness.eu/display/REBEL/REBEL#bt
- Sustainable Higher Education: http://sustainablehighereducation.com/#bt
- UHasselt, Lifelong Employability Skills: http://sturauhasselt.be/onderwijs/onderwijs
- Vlhora: http://www.vlaamsehogescholenraad.be/be-nl/index.html
- Vlir: http://www.vlir.be/#bt
- VUB, Crosstalks: http://crosstalks.vub.ac.be/about
- websites of universities and university colleges in Flanders

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France	- National Strategy of Ecological Transition - Green Plan - Republic School Acts
Germany	Documents: - Alfred Toepfer Academy for Nature Conservation: "Markenzeichen BNE": http://www.nna.niedersachsen.de/veranstaltungen/Markenzeichen-BNE-119081.html - AG Hochschule (2013)Hochschulen und Nachhaltigkeit: Bremer Appell zum Ende der UN-Dekade „Bildung für nachhaltige Entwicklung": http://www.wiwi.uni-bremen.de/gmc/pdf/HS_Bremer_Appell.pdf - Baden-Württemberg & Stiftung Naturschutzfonds Baden-Württemberg (2009) Zukunft gestalten – Bildung für nachhaltige Entwicklung in Baden-Württemberg. Aktionsplan 2009. http://www2.um.baden-wuerttemberg.de/servlet/is/25321/Aktionsplan%20BNE_BW_2005.pdf?command=downloadContent&filename=Aktionsplan%20BNE_BW_2005.pdf - Deutsche Gesellschaft für Hochschuldidaktik e.V. http://www.dghd.de/aktuelles.html - Federal Government Germany (2002) Perspectives for Germany: Our Strategy for Sustainable Development: http://www.bundesregierung.de/Content/EN/StatischeSeiten/Schwerpunkte/Nachhaltigkeit/Anlagen/perspektives-for-germany-langfassung.pdf?__blob=publicationFile&v=1) - Federal Government Germany (2009) Bericht der Bundesregierung zur Bildung für eine nachhaltige Entwicklung.

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Netherlands	Websites (with documents) of: - national associations of universities/ universities of applied science (VSNU, Vereniging Hogescholen) and of individual universities; - higher education certification and accreditation organisations (Hobeon, NVAO); - ESD policy programs (LvDO/DuurzaamDoor) - ESD networks (DOC, PLADO, DUPLHO)
Switzerland	BNE Konsortium der COHEP (2012): Massnahmen zur Integration von Bildung für Nachhaltige Entwicklung (BNE) in die Lehrerinnen- und Lehrerbildung. Empfehlungen zuhanden der Schweizerischen Konferenz der Rektorinnen und Rektoren der Pädagogischen Hochschulen (COHEP). Bundesgesetz über die Förderung der Hochschulen und die Koordination im schweizerischen Hochschulbereich (Hochschulförderungs- und -koordinationsgesetz, HFKG) vom 30. September 2011 (will probably enter into force in mid-2014). Di Giulio A., Ruesch Schweizer C., Adomßent M., Blaser M., Bormann I., Burandt S., Fischbach R., Kaufmann-Hayoz R., Krikser Th., Künzli David Ch., Michelsen G., Rammel Ch., Streissler A. (2012): Education on the Path to Sustainability. Proposal of an indicator set to evaluate education for sustainable development. Allgemeine Ökologie zur Diskussion gestellt. No. 13. Bern: IKAÖ [translation of the 2011s' publication] Di Giulio A., Ruesch Schweizer C., Adomßent M., Blaser M., Bormann I., Burandt S., Fischbach R., Kaufmann-Hayoz R., Krikser Th., Künzli David Ch., Michelsen G., Rammel Ch., Streissler A. (2011): Bildung auf dem Weg zur Nachhaltigkeit. Vorschlag eines Indikatoren-Sets zur Beurteilung von Bildung für Nachhaltige Entwicklung. Allgemeine Ökologie zur Diskussion gestellt. Bd. 12. Bern: IKAÖ. Hofmänner A., Pohl Ch. (2010): "Bestandesaufnahme Nachhaltige Entwicklung,

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- http://www.umweltbildung.ch/szene/netzwerke/
- http://www.education21.ch/en/home
- http://www.kfh.ch/uploads/dkfh/doku/2_Grundlagenpapier_NE_an_FH_definiti v_10_02_08.pdf
- https://www.ethz.ch/en/the-eth-zurich/sustainability/eth-sustainability.html