

Erasmus projects involving Germany and NTNU

No description defined

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Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

School Adoption in Teacher Education



Project Coordinator

Organisation UNIVERSITY COLLEGE SYDDANMARK
Address DEGNEVEJ 16 , 6705 ESBJERG , DK
Website www.ucsyd.dk

Project Information

Identifier 2016-1-DK01-KA203-022324
Project Web Site <http://school-adoption.com/>
Start Date Sep 1, 2016
End Date Aug 31, 2019
EC Contribution 206,825 EUR
Partners Lyshoejskolen (DK) , PAEDAGOGISCHE HOCHSCHULE WEINGARTEN (DE) , EUROPA-UNIVERSITAT FLENSBURG (DE) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , PENZA STATE UNIVERSITY (RU)
Topics Quality Improvement Institutions and/or methods (incl. school development) ; New innovative curricula/educational methods/development of training courses ; International cooperation, international relations, development cooperation

Project Summary

Background

Teacher educators normally don't teach children and practicing teachers frequently forget the academic fundamentals of education. This has caused a gap between academic teacher education and the competences needed in education school practice. School adoption is a way to bridge this gap between schools and teacher education institutions by training student teachers for several weeks to adopt a school for one week. This while they are still learning themselves - using theory in practice and using practice experiences in theoretical reflection. School adoption offers win-win initiatives for both student teachers, schools and teacher education institutions.

Also, school teachers and teacher educators need to revise their educational paradigms. They have to consider flexible and innovative learning approaches and methods to improve quality and relevance of the teaching profession. 'School' and 'teacher education' as systems get much more linked up through the use of school adoption. They form a strong consistency between higher education, research and professional practice in schools which will strengthen the quality of teacher education. Both teacher students and teacher educators (and teachers!) will very probably profit from this new model for cooperation with schools. The project provides strengthened performance skills to students and teacher educators and higher efficiency in teacher education and training.

The presence of student teachers in schools for one week gives school teachers the opportunity to participate in professional development classes/team work outside school meanwhile. This model initiates innovation and new ways of thinking and acting in teacher education. School teachers get the possibility to develop their academic qualification and core competences through better communication between systems and through closer links between theory and practice. Teacher educators thus close the gap between their academic activities and the real needs of school development. School adoption is an efficient way to strengthen and focus on a practice oriented approach to teacher education. The school adoption project SATE is meant to be the beginning of an ongoing and integrated part of the future teacher education, and a strong partnership across countries will help to ensure the exchange of good practices.

Objectives

The aim of the SATE project was to bridge the existing gap between schools and teacher education by the development of an effective and innovative model for internships that strengthens collaboration between practice and the academic world. School adoption has shown to be a win-win situation. Student teachers take over a school for one week and learn by doing. They get the opportunity to test in practice their academic knowledge supported by a mentor and they take care of all tasks of a teacher (teaching, administration, relationships with parents etc) during the week, which is different from traditional internships. School teachers participate in professional development classes during this week in order to strengthen their skills and competences. They learn how to act as co-educators for student teachers in close collaboration with teacher educators.

Participating organisation

Five higher education institutions from DK, N, D, and Ru with a strong tradition for teacher education have been full partners in the project as well as one Danish Elementary School, the latter with the aim to ensure the crucial link to practice in all project activities. Before project start, all partner institutions designated a local stakeholder school to act as a test partner during the project, which means that these elementary schools were fully or partly taken over by teacher students at least once during the project period.

Main activities

All partner or stakeholder schools have been taken over by student teachers from the partner institutions at least once during the project period. In relation to these school takeovers the project group has evaluated the experiences through focus group interviews and video interviews with pupils, student teachers, school teachers and teacher educators (mentors) (IO2 + IO3). As a result of transnational discussions with exchange of good knowledge within the partner institutions, the project group has elaborated a set of generic guidelines for school adoption with the aim to inspire more teacher education institutions and schools to try school adoption (IO1). Also, a report/book has been produced with articles from all partner institutions and their different ways of dealing with school adoption (IO4). Furthermore, a web site is available with all relevant information (except from the videos as pupils cannot be shown publicly) - <http://www.school-adoption.com/>

Results and impact

Following products have been elaborated:

1. Guidelines for school adoption
2. Video clips as testimonials
3. Evaluation report
4. Book/report with articles from all partners

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Training the mindSET – Improving and Internationalizing Skills Trainings for Doctoral Candidates

Project Coordinator

Organisation TECHNISCHE UNIVERSITAT BERLIN
Address STRASSE DES 17 JUNI 135 , 10623 BERLIN , BERLIN , DE
Website www.tu-berlin.de

Project Information

Identifier 2018-1-DE01-KA203-004234
Start Date Sep 1, 2018
End Date Aug 31, 2021
EC Contribution 395,149 EUR
Partners NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , POLITECHNIKA WARSZAWSKA (PL) , POLITECNICO DI MILANO (IT)
Topics Recognition, transparency, certification ; Overcoming skills mismatches (basic/transversal) ; New innovative curricula/educational methods/development of training courses

Project Summary

NEEDS: In many countries of Europe the past decades have seen a reform of doctoral training from the individual 'apprenticeship model' to the structured 'graduate school'. This institutionalized change is accompanied by the development of trainings in 'transferable skills' and the setting up of curricula in this field, yet many universities still experiment with the right quantities and qualities of these trainings, answering to unclear needs of early stage researchers and varying employment markets. This is especially true in the Science, Engineering and Technology (SET) fields. The discussion on an 'Europeanization' of doctoral training has until now, however, missed any disciplinary specifications.

OBJECTIVES: This project aims to develop a common European core curriculum in transferable skills for doctoral training, especially designed for the SET disciplines, including entrepreneurial, leadership, communication and organizational skills as well as education in research ethics and good scientific practice. It should, as a result, enhance the possibilities of cross-national mobility of early stage researchers, trainers and academic staff and their orientation within an international employment market. It is a contribution to a deeper and broader Europeanization of doctoral training, an advancement of training in transferable skills for a new generation of researchers in disciplines decisive for our common future.

TOPICS AND APPROACH: The partners will learn the different contexts of the reforms of doctoral training in their countries and reflect upon the varieties of the respective employment markets for PhD-graduates in science, engineering and technology. During the first year they will identify a core curriculum for PhD candidates in Universities of Technology (TUs) and debate in detail the goals of its components, referring to the European qualifications framework. The curriculum will take into account transferable skills especially relevant for SET disciplines, including entrepreneurial thinking as well as measures to improve reflection and training on research ethics and good scientific practice (intellectual property rights, data management etc. but also reflecting societal consequences of research). The partners will develop recommendations on the recognition of the acquired skills and qualifications to promote transparency and transferability between European Universities of Technology. Task forces will be formed to work on different products of the network project and also to address major umbrella institutions of science and research as well as professional organisations on the national and international level. In the second and third year, trainings and workshops will be held at different sites, integrating speakers and stakeholders from the national and international scenery and resulting in common training manuals (which will be shared online by an open access license). In the third year this will culminate in the organization of several multiplier events which seek wider attention and help disseminate the outcomes of the project.

TARGET GROUP AND PARTICIPANTS: The prime target group of this project is supervisors, graduate schools and training centres, which will benefit from the development of the curriculum and the trainings. Doctoral candidates will be involved in trainings and in the discussion and development of the manuals. Special attention will be paid to women as a minority in the SET disciplines and to international doctoral candidates studying at the partner universities. On a higher level, national and international stakeholders (professional organisations and umbrella institutions of science and research) will be targeted. This will contribute to developing and promoting results that are transferable to other universities, particularly in the EU but also beyond.

PROJECT TEAM: The project partners represent some of the most important Universities of Technology in Europe, and will be recruited from core actors in the respective departments for doctoral training, graduate centres and schools, training institutions etc. They will also actively involve within the exchange supervisors and early stage researchers, as the direct representatives of the target groups of the trainings.

MAIN RESULTS AND IMPACT: A sustainable network of the partner universities for exchanging trainers, staff members and supervisors or doctoral candidates with respect to transferable skills qualifications will be set up. The results of the network will be applied and made public in open accessible manuals for the different training areas, various international and national conferences, and be disseminated to other European Universities of Technology. The contact and debates with policy makers and employers may result in an alteration of policies and priorities through mutual learning on the European level.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Collective Evaluation of Design Driven Doctoral Training

Project Coordinator

Organisation UNIVERZA V LJUBLJANI
Address KONGRESNI TRG 12 , 1000 LJUBLJANA , SI
Website <http://www.uni-lj.si>

Project Information

Identifier 2019-1-SI01-KA203-060565
Start Date Sep 1, 2019
End Date Aug 31, 2022
EC Contribution 439,629 EUR
Partners EUROPEAN LEAGUE OF INSTITUTES OF THE ARTS VERENIGING (NL) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , HAFENCITY UNIVERSITAT HAMBURG (DE) , TECHNISCHE UNIVERSITEIT DELFT (NL) , COFAC COOPERATIVA DE FORMACAO E ANIMACAO CULTURAL CRL (PT) , POLITECNICO DI MILANO (IT) , EAAE - AEEA (European Association for Architectural Education vzw - Association Européenne pour l'Enseignement de l'Architecture (BE) , TECHNISCHE UNIVERSITAT BERLIN (DE) , KATHOLIEKE UNIVERSITEIT LEUVEN (BE) , ARKITEKTSKOLEN I AARHUS (DK)
Topics New innovative curricula/educational methods/development of training courses ; Creativity and culture ; Recognition, transparency, certification

Project Summary

CONTEXT/BACKGROUND

The Erasmus+ Strategic Partnership CA2RE+ develops a collective learning environment through Evaluation of Design Driven Doctoral Training. Design Driven Doctoral research (DDDr) is taken as a multidisciplinary example of an experiential learning-through-evaluation model, appropriate for identification and promoting relevance of research singularity, its transparency and recognition, to award excellence in doctoral training for creative and culturally rooted solutions of contemporary design driven developments.

The CA2RE+ explicates the transformative and innovative power of highly individual strategies in artistic research, the diversity of research traditions and the integrative nature of architectural design research, able to face the contemporary knowledge fragmentation from humanities, social sciences and technology. It explicates the interdisciplinary relevance of convergent thinking, mastering wicked problems, open-ended processes, resilience and risk, as well as orientation to future, all present in Design Driven Doctoral Research (DDDr). It explicates the didactic relevance of DDDr for training creative professionals how to use the integrative power of design thinking to master open-ended processes while solving contemporary spatial dilemmas (sociological, climate-change related, political...).

In the arts, architecture and design, understanding of reality aims to future creations, however convincing, remains based on a personal and creative aspect, where the relevance of singularity of particular cases plays the key role in research strategies and evaluation. The evaluation of this type of relevance requires explication of tacit knowledge and research impact evidence, including non-written production. These needs have been identified by the CA2RE community through its biannual Conferences on Artistic and Architectural Research as a follow-up of the ADAPT-r project (Architecture, Design and Art Practice Training-research / EU ITN).

OBJECTIVES

The CA2RE+ advances the doctoral training from being a support to an experimental collective evaluation training environment for DDDr. It critically transfers the traditional design studio learning model from the master to the doctoral level: learners at different stages of their process learn collectively with evaluators in an iterative way. The project objectives are achieved iteratively through the main project steps from observation and sharing, comparison and reflection to reformulation and recommendation:

1.
to develop a COLLECTIVE LEARNING ENVIRONMENT THROUGH the EVALUATION OF DDDr TRAINING;
2.
to create EVIDENCE OF DDDr LEARNING ENVIRONMENT AND EVALUATION MATERIALS;
3.
to identify the DDDr STRATEGIES, to explicate the DDDr EVALUATION process and to prepare the DDDr FRAMEWORK and
4.
to disseminate the CA2RE+ learning-through-evaluation model and its framework.

PARTICIPANTS

The CA2RE+ Strategic Partnership of 11 outstanding HE organisations and associations from 8 EU countries is running for 3 years. Its backbone is a series of biannual international and intercultural INTENSIVE STUDY PROGRAMMES for doctoral candidates, guided by experienced evaluators from participating universities and invited experts. The doctoral work-in-progress is evaluated through presentations, performances, exhibitions and critical discussions, following the iterative CA2RE+ development steps: observation, sharing, comparison,

reflection, reformulation and recommendation. To introduce new experts with low evaluation experience into the process, JOINT STAFF TRAINING is developed at each venue.

RESULTS

The public database on DDDr EXPERIENCES offers the CA2RE+ multimedia courseware for learning from raw evaluation data. It evidences the case studies/strategies of tacit knowledge explication on DDDr examples and its evaluation experiences to further develop research strategies. The open-access book series on DDDr STRATEGIES, DDDr EVALUATION and DDDr FRAMEWORK offers a set of interpretations, recommendations and guidelines for implementation of evaluation of DDDr related doctoral programmes, the development of the starting points for DDDr and the relevance of findings for humanities and social sciences.

IMPACT, BENEFITS

Long term benefits are expected for doctoral researchers, creative practitioners, evaluators, multidisciplinary course/programme developers, education policy makers, aiming at a creative refreshment of qualitative research. Sharing and comparing doctoral training across research traditions and cultures within the core areas, dealing with creativity and culture, leads to transparency and recognition of tacit skills and qualifications. The development of collective evaluation courses contributes to promoting and rewarding excellence in teaching and skills development. The explication of tacit knowledge from evaluation experience through a multimedia database contributes to consolidation and improving evidence-building on higher education.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

New Culture in Higher Education: Project-Oriented Learning Beyond Borders



Project Coordinator

Organisation TECHNISCHE UNIVERSITAT BERLIN
Address STRASSE DES 17 JUNI 135 , 10623 BERLIN , BERLIN , DE
Website www.tu-berlin.de

Project Information

Identifier 2015-1-DE01-KA203-002207
Project Web Site <http://www.engineering-team.net/>
Start Date Sep 1, 2015
End Date Aug 31, 2018
EC Contribution 393,389 EUR
Partners NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , POLITECHNIKA WARSZAWSKA (PL) , POLITECNICO DI MILANO (IT)
Topics International cooperation, international relations, development cooperation ; Entrepreneurial learning - entrepreneurship education ; New innovative curricula/educational methods/development of training courses

Project Summary

Motivated by the needs of today's globalized European environment, the main objective of this project was to improve and enhance the learning process on sustainable engineering in university education through mobility and cross-border cooperation. The project consortium of the four engineering departments located at TU Berlin, PoliMI, NTNU and WUT, worked together on solutions aiming for sustainable innovations. In doing so, two multidisciplinary, intercultural teams of a total 37 master's students and 9 researchers, formed the so-called European Engineering Team (EET). The partner universities acted collectively to enhance and introduce innovations to the teaching and learning processes. Three main objectives have been pursued:

- To influence the career of students in their early phase by dealing with the challenge of sustainability in engineering processes
- To foster sustainable entrepreneurship and start-ups established by students
- To prepare students to thrive in and contribute to an increasingly demanding work-life in Europe
- by promoting the key skills required in the EU labour market

The partner universities developed and implemented a new course curriculum (Intellectual Output 1) for the EET, based on innovative teaching and learning approaches. An MOOC (Massive Open Online Course) about Sustainable Engineering (Intellectual Output 2) is an essential supplement to the EET by supporting the development of the required methodical- and professional-competencies of the master's students. In order to effectively disseminate the results of the project to internal and external stakeholders, a guideline for planning and implementing interdisciplinary and transnational teaching and learning activities (Intellectual Output 3) was also developed, including the necessary collaboration infrastructure.

The impact of the project starts at the local partner universities, through their master's students, who are better prepared for the competitive European labour market and who acquire substantial knowledge about sustainable engineering and entrepreneurship. Regarding the long-term impact, the project strengthens the international profile of the partner universities. It increases the interdisciplinary orientation of the European strategic partnerships of these universities by adding a new European joint study course to the curriculum. On the national and European level, the developed course curriculum will increase the quality of teaching and learning in higher education by being disseminated to third-party universities, research institutes and companies. They can start to apply their own transnational project-oriented teaching activities. This will lead to a competitive advantage of these European organizations in terms of attracting new students and creating more qualified future employees.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Enhancing European teacher education through University schools

Project Coordinator

Organisation OTTO-FRIEDRICH-UNIVERSITÄT BAMBERG
Address KAPUZINERSTRASSE 16 , 96045 BAMBERG , DE
Website www.uni-bamberg.de

Project Information

Identifier 2018-1-DE01-KA203-004221
Start Date Dec 1, 2018
End Date Aug 31, 2021
EC Contribution 255,969 EUR
Partners NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , Masarykova univerzita (CZ) , UNIVERSIDADE DE LISBOA (PT) , FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG (DE)
Topics Quality Improvement Institutions and/or methods (incl. school development) ; New innovative curricula/educational methods/development of training courses ; Cooperation between educational institutions and business

Project Summary

The professionalization of teacher education is a widely discussed phenomenon in Europe (Cain 2015, Smith 2106), especially the transfer from theory into practice and vice versa. The main focus is how to provide students with practical skills and knowledge during their professional education, which has led to a current 'practice turn' in teacher education. Therefore, a cooperation between schools, university and other stakeholders (local government, ministry, teacher organizations) on the organizational level is needed. In this field, an innovative concept is the organization form of "university schools" similar to the idea of university hospitals, where teaching and research are supposed to build a productive combination. The intention of university schools is to build a strategic alliance with a university for educating the future teachers in study programs and to cooperate in research and school development processes.

In detail, our objectives are:

- Establishing an European understanding of university schools as an important stimulus for the future of teacher education in Europe
- Identifying success factors for implementing university schools related to different stakeholders (i.e. non-governmental institutions)
- Identifying good practice activities of university schools in Europe to develop an orientation knowledge for teacher educators and teachers at university schools in a digital handbook
- Development of an educational module for teachers at university schools

Our consortium in this project consists of 5 partners (University of Bamberg, University of Nuremberg, University of Norway (NTNU), Masaryk University (MU) and the University of Lisbon) and 4 university schools (associate partners: Commercial School Bamberg, Vocational School Nuremberg (Technics), Charlottenlund secondary school (Norway) and university-school in Czech: basic school). All partners are experts in the field of teacher education and have already implemented the concept of university schools.

Through our results we want to develop a common European understanding of university schools and their concepts regarding to all stakeholders and making a significant contribution to the European teacher education system. As a consequence, we want to find and systemize organizational and cooperational structures, which are emerged in the concept of university schools among all stakeholders (school, university, governmental and non-governmental organizations), in order to improve teacher education system (meso-level) through developing an educational module and creating a handbook about university schools. A main result should be in finding a "common factor" in the different university school concepts that is critical for success in teacher education in Europe (Smith 2016).

For the project seven activities can be identified, which can be divided in two main directions: Firstly, the development of an education module and the creation of a digital handbook including monitoring and evaluation. Secondly, the multiplier event to involve a wider range of stakeholders such as teachers, school-based teachers, school leaders, governmental and non-governmental organizations.

These activities lead to following goals:

First, institutional description. We want to find organizational as well as communicational and cooperational patterns within the different implemented university school concepts in Europe. Methodology: documentary analysis and literature review.

The second Intellectual Output is a collection of good practices. Hereby, we want to find examples of best practice within the concept of university schools. Methodology: telephone and online interviews with participants of the university school concepts (school-based teachers, school leaders, academic staff, university lecturer etc.)

The third Intellectual Output is an educational module. Methodology: different didactical methodologies like an active learning approach, etc.

The last Intellectual Output is a digital handbook of and for university schools. We want to design a digital handbook, which describes the different university school concepts and their different implementation on the meso-level.

The project will have a significant impact in the teacher education system. Through the involvement of all stakeholders participating already in the different university school concepts, it is possible to get a deeper insight how the communication and cooperation channels and networks work in teacher education in different European countries within this concept. Finding a „common factor“, which makes university school concepts to a valuable part of the teacher education system and to disseminate to all European countries are goals, which can foster the theorie-practice connection.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Fostering Awareness on program Contents in higher Education using IT tools

Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , NO
Website www.ntnu.no

Project Information

Identifier 2019-1-NO01-KA203-060257
Start Date Sep 1, 2019
End Date Aug 31, 2022
EC Contribution 166,500 EUR
Partners OTTO-VON-GUERICKE-UNIVERSITAET MAGDEBURG (DE) ,
UNIVERSITA DEGLI STUDI DI PADOVA (IT) , UNIVERSITE LIBRE DE
BRUXELLES (BE) , UPPSALA UNIVERSITET (SE)
Topics New innovative curricula/educational methods/development of training
courses ; Quality Assurance ; Research and innovation

Project Summary

Fostering high-quality Higher Education (HE) requires strengthened quality assurance in the design, implementation, execution and evaluation of HE programs (HEPs). This quality assurance process involves multiple stakeholders with different perspectives and conceptualizations:

- PROGRAM BOARDS plan and design curricula mostly in terms of ILOs, PLOs and TLAs
- ADMINISTRATORS evaluate programs and communicate with other stakeholders
- TEACHERS develop, revise and implement courses, mostly based on the taught procedures and concepts (PCs)
- STUDENTS are naturally inclined to see course and program contents through PCs.

Unfortunately, the efficacy of quality assuring HE is currently limited by the heterogeneity of the tools and conceptualizations of the stakeholders. To improve this, we identify the need for tools that: 1) aid executing the HE quality assurance processes; 2) support decision makers in maintaining HEPs; 3) clarify the relations between ILOs, PLOs, and TLAs to all stakeholders; 4) promote awareness about program contents and their relations; 5) establish a common language among stakeholders.

Our main objective is to develop tools that solve these needs, improve the quality of education and increase the employability of our candidates by helping:

- students to understand how the contents of different courses connect and expand on each other
- teachers and program boards to improve their awareness of how course contents flow within the program and contribute to the PLOs
- administrators to inspect and assess program quality
- all stakeholders to establish a common language to ease their communication.

To achieve our goals we involve participants from STEM faculties from different backgrounds, geographic areas, and academic cultures.

The consortium includes:

- NTNU, hosting several educational centers whose scope and expertise overlap with the intentions of the Face-IT project, has considerable expertise in the development and quality assurance of HEPs, and hosts Norway's largest academic environment within teacher education and educational research at the Department of Teacher Education;
- Uppsala University (UU), renown for its excellence in research and teaching and its long lasting traditions, with broad research and development activities in pedagogy, teaching, and related topics;
- University of Padova, with broad expertise in innovative teaching and learning in the framework of active learning, in the development and creation of MOOCs, and with a constant strive for improving teaching and learning, involving students' voices and promoting change at different levels.
- Otto-von-Guericke University, with a broad expertise in fostering multi-cultural, multi-gender and disparate student audiences in its teaching, and with multi-disciplinary programs that combine several aspects of modern knowledge;
- the Université Libre de Bruxelles, with its peculiarity of offering several interfaculty programs shared with other HE realities, such as the Solvay Business School, and a wide range of multi-disciplinary projects.

Towards our goals, we plan to introduce a language that enables teachers and students to describe program contents in the intuitive terms of PCs and investigate how to connect them to the associated PLOs, ILOs, and TLAs. This language will enable representing the students' learning process as flows of PCs, that will capture graphically how course contents are expected to ladder in time, and thus represent entire programs in an alternative and quantitatively analysable fashion.

The developed methods will be implemented in easily usable and interpretable IT tools that provide actionable information and decision-making support to each stakeholder. The tools will be tested on several course- and program-wide field tests. All results will be disseminated through two multiplier events at NTNU and UU, and through scientific open access publications and a dedicated project website.

The project will thus produce intellectual outputs including methods to: derive ontological descriptions of PCs in HEPs; merge PCs with TLAs, ILOs, and PLOs into knowledge flow graphs; represent and analyse courses and programs in terms of these flows graphs. These outputs will thus support defining program contents in a way that every stakeholder can relate to, promoting thus acceptance and usage.

This project will revolutionize how to develop, assess and manage HEPs and courses by empowering and engaging the stakeholders with a particular attention to students and teachers: students will indeed be more aware of why they study what they study, enabling them to perform self-assessment on their knowledge in relation to upcoming courses. Teachers will be supported in implementing constructive alignment principles and maintain overall program consistency. Our tools will also help executing quality assurance operations, and help universities to share information among them and with society.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Innovation and Excellence in Cyber-security teaching in Higher Education

Good practice example



Project Coordinator

Organisation LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY
Address 5 AVENUE DES HAUTS FOURNEAUX , 4362 ESCH SUR ALZETTE , LU
Website www.list.lu
Contact Qiang Tang , +352 275 888 2782 , qiang.tang@list.lu

Project Information

Identifier 2016-1-LU01-KA203-013834
Project Web Site <https://sectech.cs.univie.ac.at/>
Start Date Dec 31, 2016
End Date Dec 30, 2018
EC Contribution 175,984 EUR
Partners KATHOLIEKE UNIVERSITEIT LEUVEN (BE) , UNIVERSITY OF PLYMOUTH (UK) , UNIVERSITAET REGENSBURG (DE) , UNIVERSITAT WIEN (AT) , OULUN YLIOPISTO (FI) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO)
Topics New innovative curricula/educational methods/development of training courses ; International cooperation, international relations, development cooperation

Project Summary

Information and information technology (IT) security has become interdependent, global and critical - it has become cyber-security. Cyberspace or the cyber domain refers to the ability to electronically store, process and most importantly transfer information. The medium allows for an almost instant information transfer over great distances, and across national and legislative borders. In this complex environment, legal consideration and economic incentives are as integral to ensuring the security of information systems as the technological realization.

The project has fulfilled four objectives: (1) Jointly develop Cyber-Security related teaching and training materials at Masters and PhD level; (2) Create within each partner institution, a centre for cyber-security teaching and awareness competences with curriculum encompassing area of expertise of each partner institution.; (3) Support decision makers in the area of higher education with a set of recommendation on how to improve the quality of teaching in cyber-security; (4) Adopt an online collaborative and interactive tool for delivering the courses to remote students. It has 7 partners, as shown in Section 2.1.

The project has planned 4 multiplier events and one training event, among which we have carried three multiplier events. However, in order to fulfil the project objectives, we have carried out additional activities as shown below. As a result, we have fulfilled all the objectives and successfully delivered all three outputs. In the long term, the project has laid a foundation for future collaborations to make a truly sustainable EU-wide cybersecurity curriculum for Europe.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Knowledge Alliances for higher education

Project Title

Learn2Analyze (L2A): An Academia-Industry Knowledge Alliance for enhancing Online Training Professionals' (Instructional Designers and e-Trainers) Competences in Educational Data Analytics

Project Coordinator

Organisation UNIVERSITY OF PIRAEUS RESEARCH CENTER
Address GR. LAMPRAKI 122 , 185 32 PIRAEUS , ΑΤΤΙΚΗ (Attiki) , EL
Website <http://www.unipi.gr>

Project Information

Identifier 588067-EPP-1-2017-1-EL-EPPKA2-KA
Start Date Jan 1, 2018
End Date Dec 31, 2020
EC Contribution 990,513 EUR
Partners IMC INFORMATION MULTIMEDIA COMMUNICATION AG (DE) ,
CURTIN UNIVERSITY OF TECHNOLOGY (AU) , ENOVATION
SOLUTIONS LIMITED (IE) , NORGES
TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) ,
UNIVERSITAET MANNHEIM (DE) , LATTANZIO LEARNING SRL (IT)

Project Summary

The Digital Learning Industry has recognized two important professions namely: (a) Instructional Designers, who design and develop online courses and (b) e-Trainers who support the delivery of these online courses. Given the evident importance of these job roles in designing and delivering high quality and effective competence-based online professional training courses, professional competence frameworks have been developed to define their competence needs, supported by professional development initiatives for cultivating them. However, emerging and promising advancements in Digital Learning related to the use of data-driven evidence from Educational Data Analytics are scarcely, if at all, addressed by existing competence frameworks and, by extend, professional development programs. Therefore, there is a need for extending existing competence frameworks with new competences for both professions, to accommodate these emerging fields. Furthermore, innovative professional development programs are also required to develop these new competences. In this context, the project aims to develop an Academia-Industry Knowledge Alliance for designing, developing and evaluating (a) two new competence profiles (extending existing frameworks) and (b) one competence-based European MOOC addressed at cultivating these innovative instructional designers' and e-trainers' competences for exploiting educational data analytics in online professional workplace development. The expected impact of the project will be: (a) for academic partners, modernization of their curricula towards developing their students' competences and better align them to work-based needs of the Digital Learning Industry and (b) for industrial partners, dissemination of their LMS products and professional development programs, potentially leading to even wider adoption from practitioners, as well as improving the functionalities of their LMS platforms to better meet the needs of instructional designers and e-trainers

Link to project card: [Show project card](#)

Funding: Education and training\Life long learning (2007-2013)\GRUNDTVIG\Partnerships

Project Title

Leadership for Transition

Project Coordinator

Organisation Zentrum für integrale Führung (ARGE)

Address Fasholdgasse 3/3, Wien , AT

Project Information

Identifier EST-2013-1-DE2-GRU06-16312

End Date 25/08/2017

Partners Institute for Integral Studies (DE) , Norwegian University of Science and Technology, Department of Adult Learning and Counselling (NO) , Business School Lausanne (CH) , Initiative for Co-Development (SE)

Project Summary

Leadership for transition (LiFT) brings together innovative researchers, practitioners and citizens engaged in the fields of leadership, education and societal transition to promote more integrative, more effective and thus more sustainable ways of living in Europe and beyond. The project rationale holds that in times of multidimensional crisis, leadership increasingly needs to empower individuals and society at large to take over responsibility for working towards the common good. LiFT therefore has two goals: First, it creates a forum for researchers, practitioners and civic activists in the above mentioned fields to exchange knowledge and experience as to the personal, social and cultural skills which professional and civic leaders must possess in order to encourage and empower other people towards civic initiatives towards sustainability. Second, LiFT trains (potential) leaders and interested citizens to be more effective in supporting eco-system transitions (Scharmer 2009) on local, regional, national and transnational levels and to make the necessary changes in their private and/or professional lives. A particular focus will be put on inner (subjective and intersubjective/cultural) dimensions of both leadership and transition. For even though they tend to be neglected in much of mainstream leadership and transition practice, we consider qualities like the scope, degree and complexity of conscious awareness to be crucial for adequate leadership behavior in a more and more complex world.

Based on innovative trends in leadership, the project will apply academic, practical and intuitive knowledge to the most important real world challenges. A special focus will be put on processes reaching out beyond individual consciousness into the realm of collective intelligence.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for vocational education and training

Project Title

Leadership for Transition

Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , NO
Website www.ntnu.no

Project Information

Identifier 2015-1-NO01-KA202-013275
Start Date Sep 1, 2015
End Date Aug 31, 2018
EC Contribution 358,594.79 EUR
Partners UNIVERSITAET FUER BODENKULTUR WIEN (AT) , Business School Lausanne (CH) , ZENTRUM FÜR INTEGRALE FÜHRUNG
Seuhs-Schoeller Unternehmensberatung (AT) , Alliance for the Future
G.E.I.E. (LU) , Initiativ Samutveckling (SE) , Institut für Integrale Studien (DE)
Topics Creativity and culture ; Social dialogue ; Entrepreneurial learning - entrepreneurship education

Project Summary

Leadership for Transition (LiFT 2.0) pilots and spreads an innovative cross-sector capacity building program offering next generation training and education in basic and transversal leadership skills for facilitating dialog processes with diverse stakeholders in transnational and intercultural settings. The project rationale holds that in times of multidimensional crisis, where fundamental values are simultaneously at stake, public leadership is faced with multiple adaptive challenges. Therefore, leaders, workers and citizens need to transcend narrow particularistic views and develop methods of dialog, intercultural communication and conflict resolution grounded in notions of global responsibility and interconnectedness. Based on innovative trends in leadership thinking, LiFT 2.0 applies academic and practical knowledge about Europe's most pressing real world challenges to specific issues related to peace, justice and sustainability.

LiFT 2.0 is building on the successful Grundtvig learning partnership LiFT 1.0 (2013-2015) in which unique knowledge and experience in collaborative leadership has been gained, including, in particular, a holistic and integrative citizen engagement method called the "Collaboratory". Drawing on the joint intelligence of a broad range of stakeholders, this method empowers participants to take responsibility for organizational and societal transitions, to think and behave in respectful, socially responsible and ecologically intelligent ways and to co-create innovative and powerful solutions to complex challenges. The focused yet flexible design of the Collaboratory allows for collective inquiry on the basis of multiperspectival dialog, deep reflexivity, and transformative learning.

The purpose of LiFT 2.0 is to prepare the ground for mainstreaming its collaborative leadership methods for broader use. Accordingly, the strategic partnership is committed to harvesting and disseminating best practices in the field. Based on an evaluation, systematization and prototyping of the previous project's multiple insights and experiences, LiFT 2.0 has developed learning, teaching and training tools and materials which enable others to adopt successful collaborative leadership practices in their own contexts.

LiFT 2.0 has met all its three main goals: First, hosting and organizing international stakeholder workshops and learning events that support the development of a joint vision and corresponding actions across sectors, cultures, generations, persons and fields of activity, thereby helping individuals, groups and larger transformative projects to develop towards their full potential. Second, it has condensed and documented its experiences in collaborative leadership for others to use. Third, it has developed and implemented a unique transnational leadership training format that enables multipliers to use and further spread collaborative leadership and communication methods across various contexts. Thereby it has created viable learning communities and a cohort of leaders who can better address big adaptive challenges on local, regional, European and global levels.

All activities have combined public stakeholder involvement events with genuine training in collaborative leadership and practice based, problem-centered transformative learning. The project has conducted six public workshops, a summer school and a final conference which have reached a total of around 400 participants. Its cross-sectoral approach caters for a wide range of overlapping target audiences, from early school leavers and students to trainers, educators, innovative researchers, social entrepreneurs, practitioners and citizens engaged in working towards peaceful and sustainable futures in the fields of leadership, education, organizational transformation and societal transition. The six workshops have focused on education for transition, alternative schooling to address dropout issues, transformative politics, innovative collaborative governance and community building, as well as social entrepreneurship. The consortium's one week summer school, including a train-the-trainer course in collaborative leadership was hosted at the end of the project.

To ensure academic quality and rigor, LiFT 2.0 has developed five intellectual and pedagogical outputs enabling multipliers to make use of LiFT's insights, methodological knowledge and experience in their own fields of activity. The training and educational materials provided by LiFT enable leaders to engage more effectively in dialogue and collaboration with key partners and stakeholders, and thus empower individuals and society at large to take responsibility for working towards the common good in relation to the specific challenges they are facing. The project thus brings positive, long-lasting effects on the participating individuals and organizations, their networks and local communities, as well as the institutional and policy systems they are embedded in.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Learning Mobility of Individuals
Action Type: Erasmus Mundus Joint Master Degrees

Project Title

European Master in Embedded Computing Systems

Project Coordinator

Organisation TECHNISCHE UNIVERSITAT KAISERSLAUTERN
Address GOTTLIEB DAIMLER STRASSE , 67663 KAISERSLAUTERN , Germany
Extra-Regio , DE
Website www.uni-kl.de

Project Information

Identifier 566803-EPP-1-2015-1-DE-EPPKA1-JMD-MOB
Project Web Site <http://www.emecs.eu/>
Start Date Sep 1, 2015
End Date Aug 31, 2020
EC Contribution 2,651,000 EUR
Partners NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
(NO) , UNIVERSITY OF SOUTHAMPTON (UK)

Project Summary

The European Master's Course in Embedded Computing Systems (EMECS) is designed to educate bachelor graduates from Electrical & Computer Engineering and Computer Science as well as graduates from related disciplines to become experts in the field of Embedded Computing Systems (ECS). The participating institutions of EMECS are the Technische Universität Kaiserslautern (Germany), the Norwegian University of Science and Technology (Norway) and the University of Southampton (UK). Students will spend one year at each of the two selected universities and will be trained in three major areas, namely Hardware Architectures of Embedded Systems, System-on-Chip Design and System Software. These areas constitute the "Core Program" of EMECS (45 ECTS credits) and will be taught during the first year of study at each institution. All teaching modules of the core program are mandatory to all students and need to be finished within the first year of study at one of the partner universities. The core program guarantees that all students can achieve an equivalent educational level regarding the basic principles of embedded system design and architecture. Completion of the core program will ensure the mobility of the students after the first year of study. The Elective Program (45 ECTS credits) provides training in specialized topics of embedded system design and provides the background in typical application areas like Advanced Topics in Embedded Systems, Communication and Signal Processing, Automation and Control and Microsystems. These areas are offered by all partner universities. Each partner university contributes to a number of teaching modules for each elective study area. The teaching modules within an elective study area are varying between universities and reflect specific local strengths, special application areas, design methodologies and architectures of embedded systems. The course is completed with a master's thesis (30 ECTS credits) which is typically embedded into larger research projects conducted by local research centres or jointly with industry. In addition, the programme contains 10 specialization tracks in embedded systems. These tracks are provided as guidelines only and do not reflect the diverse application areas of embedded systems. Tracks are organized to reflect typical job roles in the industry that EMECS alumni pursue. The ubiquity of embedded systems together with their increased complexity makes the market always in the hunt for new experts with this diverse set of skills. The positions that EMECS alumni have pursued both in academia and industry provide an evidence of the excellent teaching and research quality that the EMECS programme provides. All partner universities have career service offices that can offer further support to EMECS students. EMECS is completely taught in English and offers the opportunity to study at leading institutions in this field and to experience European culture in two or more different countries. In addition, students have the opportunity to follow Norwegian and German courses. International cross-cultural experience is a key to be successful in today's job markets. EMECS offers the right training so students can prove to employers that they are capable of coping with change and perform effectively in an international setting. Also, working as a summer intern can give students better access to the work culture and job opportunities in each country. EMECS students will be awarded a Joint Master's Degree of Science (M.Sc.) in Embedded Computing Systems.

Link to project card: [Show project card](#)

Key Action: Learning Mobility of Individuals
Action Type: Erasmus Mundus Joint Master Degrees

Project Title

European Master in Embedded Computing Systems

Project Coordinator

Organisation TECHNISCHE UNIVERSITAT KAISERSLAUTERN
Address GOTTLIEB DAIMLER STRASSE , 67663 KAISERSLAUTERN , Germany
Extra-Regio , DE
Website www.uni-kl.de

Project Information

Identifier 619721-EPP-1-2020-1-DE-EPPKA1-JMD-MOB
Start Date Sep 1, 2020
End Date Aug 31, 2026
EC Contribution 4,236,000 EUR
Partners UNIVERSITY OF SOUTHAMPTON (UK) , POLITECNICO DI TORINO
(IT) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET
NTNU (NO)

Project Summary

This Erasmus Mundus Master's course on Embedded Computing Systems offers the opportunity to study at institutions leading in this field and to experience European and International culture in different countries. The European Master's Course in Embedded Computing Systems (EMECS) is designed to educate Bachelor graduates from Electrical & Computer Engineering and Computer Science as well as graduates from related disciplines to become experts in the field of Embedded Computing Systems. The participating institutions are: Technische Universität Kaiserslautern (TUK), GermanyNorwegian University of Science and Technology (NTNU), Trondheim, NorwayUniversity of Southampton (UoS), Southampton, United KingdomPolitecnico di Torino (POLITO), ItalyUniversidade Federal Do Rio Grande Do Sul (UFRGS), Brazil as Associated Partner.EMECS is a two-years Master's course (120 ECTS credits) that is pursued at least at two out of the four participating institutions. Students choose two or three out of the four universities for the Core and the Elective Program. They spend the first year of their studies at the first institution, at least one semester of the second year at the second university and then complete their master's thesis at any of the four partner universities. Upon successful completion students will receive a joint degree. The language of instruction is English. Students participating in this program will be trained in three major areas: Hardware and software architectures, System-on-chip design methodologies and Embedded System application domains The EMECS programme has been designed by further refining these fields into the definition of specific EMECS teaching areas and teaching topics. They form the EMECS Core Program as well as the EMECS Elective Program. The Core Program guarantees that all students are brought to an equivalent educational level regarding basic principles of ES design and architecture. After completion of the Core Program, no matter at which partner institution, the student will be able to take full profit of the Elective Program and of the project activities offered throughout the consortium. The Elective Program consists of the six elective teaching areas called "Advanced Topics in Embedded Systems", "Communication & Signal Processing", "Automation & Control", "Microsystems" as well as the new teaching areas of "Embedded Intelligence" and "Dependability and Security" offered by all partner universities. Each partner university contributes a number of teaching modules to each elective teaching area. Even more than in the Core Program, the teaching modules within the elective teaching areas reflect specific local strengths, application areas, design methodologies and architectures of embedded systems. The Master's thesis is typically embedded into larger projects conducted by the local research centres or together with industry.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Doctoral Education for Technology-Enhanced Learning

Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , NO
Website www.ntnu.no

Project Information

Identifier 2019-1-NO01-KA203-060280
Start Date Sep 1, 2019
End Date Aug 31, 2022
EC Contribution 396,669 EUR
Partners OPEN UNIVERSITEIT NEDERLAND (NL) , European Association of Technology-Enhanced Learning e.V. (DE) , TECHNISCHE UNIVERSITAET GRAZ (AT) , RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN (DE) , UNIVERSITY OF MACEDONIA (EL) , UNIVERSIDAD POMPEU FABRA (ES) , UNIVERSIDADE DE AVEIRO (PT) , TECHNOLOGIKO PANEPISTIMIO KYPROU (CY) , TALLINN UNIVERSITY (EE)
Topics New innovative curricula/educational methods/development of training courses ; Quality and Relevance of Higher Education in Partner Countries

Project Summary

Doctoral Education for Technology-Enhanced Learning (DE-TEL) project will establish and deepen a strategic partnership for doctoral education in Technology-Enhanced Learning (TEL). DE-TEL brings together 9 internationally renowned universities and the European Association of Technology-Enhanced Learning to reflect their expertise in doctoral education into a new internationally validated program in TEL, extended with rich and professionally produced Open Educational Resources. The project grounds the design of the new program in the best practices in TEL doctoral education across Europe as well as institutional and national requirements.

DE-TEL will create a new offer in an area of research that finds practical application across Europe as digitisation of education is in an increasing demand to solve multiple challenges. Digitisation requires pedagogical expertise on using and technological expertise in designing technologies for learning, and strategic expertise in policy making and change management. However, stakeholders currently lack combined knowledge from all three perspectives, on how to strategically drive and operationally implement digitalisation of learning and training, envision innovative technologies for learning, and rigorous methods to create evidence for the effectiveness and efficiency of technologies as part of socio-technical interventions. Such expertise is required at all levels and at all types of organisations. There is also a growing, recognised understanding by all relevant stakeholders from EU policy makers to local schools that the potential of technologies with respect to learning is to provide ubiquitous access to learning materials, and an engaging, personalised and scalable learning experience.

Doctoral education in TEL aims to develop such expertise in doctoral candidates. It provides knowledge from multiple relevant perspectives and allows taking empirically-based decisions in implementing TEL solutions in practice. The goal of DE-TEL is to bring doctoral education in TEL to a new level with high-quality resources and a new internationally designed program to support better curricular integration and avoid fragmentation of the digitisation agenda in Europe.

In order to achieve this goal, the project's objectives are (1) to identify good practices in doctoral education in TEL by conducting a survey of content, topics, teaching methods, and administrative settings, (2) to develop a new program for doctoral education in TEL and OERs available and sustainable via technical infrastructure, (3) to evaluate the new program for doctoral education in TEL in a series of training events for PhD students and teaching staff across Europe and (4) to exchange and spread good practices in doctoral education in TEL across Europe.

DE-TEL focuses on producing high-quality educational materials, and therefore applies a common development methodology, consisting of a pre-study, two iterations of development and evaluation, followed by finalisation of the results. This process is supported by management, quality control, as well as extensive Europe-wide dissemination and communication activities.

Various participants are considered as the main beneficiaries of the project. Doctoral candidates from participating universities, enrolled TEL programs are direct end-users of the project outputs. However, the project will strongly benefit European universities from the partnership and beyond who currently have or are planning to open doctoral programs in TEL. Instructors and PhD supervisors are also direct beneficiaries of the project, as they will receive an internationally designed state-of-the-art program supplemented with high-quality teaching resources.

Eight public events on national and EU levels will be the main activities of dissemination and communication for relevant stakeholders who are essential not only as the target audience, but also as subjects for the pre-study survey, users and co-designers of the program and the materials, multipliers of the knowledge generated in the project, and a source of valuable feedback. Via the European Association of TEL involved as a partner, the project will reach wider audiences across Europe and ensure the long-term availability and sustainability of the project results.

DE-TEL impact will be strongest at the EU level, while also providing benefits to society and the economy on local, regional and national levels, along with other Erasmus+ and EU activities. Through intensive cross-border

and inter-disciplinary cooperation, the project will trigger processes and produce results that are likely to become self-sustaining and develop further, such as standards of excellence in doctoral education in the field of TEL. The project will have impact on development of transversal skills among doctoral candidates, their supervisors and researchers, with a life-long value in the settings of continuously changing lifelong learning and societal challenges.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Intercultural learning in mathematics and science initial teacher education

Good practice example



Project Coordinator

Organisation Pädagogische Hochschule Freiburg
Address Kunzenweg 21 , 79117 Freiburg , BADEN-WÜRTTEMBERG , DE
Website www.ph-freiburg.de

Project Information

Identifier	2016-1-DE01-KA203-002910
Project Web Site	https://inclusme-project.eu/
Start Date	Sep 1, 2016
End Date	Aug 31, 2019
EC Contribution	431,750 EUR
Partners	NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON (EL) , UNIVERSIDAD DE JAEN (ES) , UNIVERZITA HRADEC KRALOVE (CZ) , UNIVERZITA KONSTANTINA FILOZOFA VNITRE (SK) , UNIVERSITEIT UTRECHT (NL) , VILNIAUS UNIVERSITETAS (LT) , University of Nicosia (CY) , UNIVERSITA TA MALTA (MT) , HOGSKOLAN FOR LARANDE OCH KOMMUNIKATION I JONKOPING - HLK SCHOOL OF EDUCATION AND COMMUNICATION (SE)
Topics	Inclusion - equity ; Quality and Relevance of Higher Education in Partner Countries ; New innovative curricula/educational methods/development of training courses

Project Summary

IncluSMe (Intercultural learning in mathematics and science education) offers a constructive contribution for tackling one of Europe's greatest challenges: education for an increasing number of refugee and immigrant youth, to integrate them into European educational systems and to provide for stable, socially cohesive societies. The project aimed to increase the quality of higher education curricula for prospective maths and science teachers by linking maths and science education with intercultural learning – and thereby strengthening students' social, civic and intercultural competences.

Core to IncluSMe was the design and implementation of open access teaching modules on intercultural learning for prospective maths and science teachers. The modules have been already implemented in Higher Education Institutions in Germany, Cyprus, Czech Republic, Spain, Greece, Lithuania, Malta, the Netherlands, Norway, Sweden and Slovakia. The modules are also available free of charge and for immediate use on Erasmus+ Project Results Platform, in Scientix as well as on IncluSMe web portal <https://inclusme-project.eu/>.

By offering international summer schools and multiplier events, IncluSMe strengthened transnational cooperation between universities in establishing mobility programmes for maths and science students in initial teacher education.

The project brought together 11 teams of higher education institutions for initial teacher education from across Europe comprising experts in maths and science education, in inclusion and diversity, in mobility and intercultural learning, as well as people involved in pilot projects for refugees:

University of Education Freiburg, Germany (coordinating institution)

University of Nicosia, Cyprus

University of Hradec Králové, Czech Republic

University of Jaen, Spain

National and Kapodistrian University of Athens, Greece

Vilnius University, Lithuania

University of Malta, Malta

Utrecht University, Netherlands

Norwegian University of Science and Technology, Norway

Jönköping University, Sweden

Constantine the Philosopher University, Slovakia

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Development Of Online Learning Environment for e-Health

Project Coordinator

Organisation NEW BULGARIAN UNIVERSITY
Address ULICA MONTEVIDEO 21 , 1635 SOFIA , BG
Website www.nbu.bg

Project Information

Identifier 2017-1-BG01-KA203-036310
Start Date Sep 1, 2017
End Date Aug 31, 2020
EC Contribution 223,585 EUR
Partners THE STATE EDUCATION INSTITUTION OF HIGHER PROFESSIONAL TRAINING THE FIRST SECHENOV MOSCOW STATE MEDICAL UNIVERSITY UNDER MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION (RU) , UNIVERSITATEA DE MEDICINA SI FARMACIE VICTOR BABES TIMISOARA (RO) , HOCHSCHULE KONSTANZ TECHNIK WIRTSCHAFT UND GESTALTUNG (DE) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO)
Topics Health and wellbeing ; ICT - new technologies - digital competences ; Disabilities - special needs

Project Summary

The purpose of the project is development of online educational program, training courses, and interactive assistance tools in the field of eHealth for practical work with people with disabilities, which encompasses e-learning resources development and program implementation. It will be created and maintained Virtual e-Health Center which will store the developed educational resources in combination with the produced and collected information about the needs in the field. The main objective is to develop distance learning program in the field of eHealth - working with people with disabilities, intended for students and professionals /as part of their continuing education/ in medicine, psychology, speech therapy and other professions, public health and health management, patient's groups representatives, parents and relatives of people with disabilities.

The project includes activities in development of the following intellectual products: Online learning program "eHealth - working with people with disabilities"; Electronic manual in eHealth; Virtual center "eHealth"; Tests and questionnaires for self-assessment with feedback and guidance for assistance and self-help for children and adults with developmental disorders and their families; Learning environment for patients with disorders and their families; Training videos and multimedia presentations; Practical exercises by introducing specialized software solutions for training in the field of eHealth; Practical exercises for operation with electrical and chemical biosensors for recording, analysis, visualization, transmitting physiological signal processing applications of 2D and 3D biomedical digital images; 3D reconstruction and development of training modules for demonstration printing; Open Source mobile, server and embedded applications; Model of self-educational course with feedback tests; Data analysis and publications. The produced educational resources will be free and available through the website of the virtual e-Health Center.

The activities are realized through electronic communication among partners, international project meetings, teamwork, development of programs and e-learning resources, summarizing and analyzing the results, design and analysis of information, scientific publications.

The project participants include: 1. New Bulgarian University - leading organization - NBU team includes experts in medicine with experience in working with people with disorders, research on children and adults with disorders and bilingualism, communication with people with disabilities, specialists in informatics and telecommunications with experience in developing e-learning resources, multimedia, mobile applications, software solutions for working with people with disabilities; 2. NTNU, Trondheim, Norway - partner with experience in the development of tests and online communication and consultation with people with developmental disorders, bilingual children with disorders, representatives of various cultural groups; 3. Hochschule Konstanz Technik Wirtschaft und Gestaltung, Germany - partner with experience in the development and implementation of telemedicine projects in the field of eHealth; 4. Universitatea de medicina si farmacie Victor Babes, Timisoara, Romania - partner with experience in adaptation, implementation and administration of online platforms for university studies; 5. The State Education Institution of higher professional training the First Sechenov Moscow State Medical University under Ministry of Health of the Russian Federation - partner with experience in organization and activities in the development of modern technologies (Internet, software and media) in the health field and experience in the creation and development of a virtual hospital. The associated partners are: "Paradox Interactive" Ltd. - a company specialized in designing, implementing and operating solutions for electronic distance learning and "mHealth-Tech" Ltd., Moscow, Russia with experience in the field of studies on the application of new digital and communication technology to provide care and education to medical doctors and patients in remote mode.

As a result of the realized activities the educational approaches will be developed new online program, creative interactive learning resources and tools in the field of eHealth, electronic learning resources for representatives of patient groups and people from different cultural communities, which will be implemented through partnerships with organizations from different countries and various fields of knowledge cooperation. The activities of the project meet the needs of developing innovative educational resources, increase the level of education and training of students and professionals and enable introduction of modern distance learning resources that can be

used by teachers, students, professionals and people with disabilities and their families.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Professional Learning Communities as a means for bringing teacher professionalization in teacher education

Project Coordinator

Organisation PAEDAGOGISCHE HOCHSCHULE WEINGARTEN
Address KIRCHPLATZ 2 , 88250 WEINGARTEN , BADEN-WÜRTTEMBERG , DE
Website www.ph-weingarten.de

Project Information

Identifier 2019-1-DE01-KA203-005028
Start Date Sep 1, 2019
End Date Jun 30, 2022
EC Contribution 225,717 EUR
Partners The Municipality of Linköping (SE) , UNIVERSIDAD DE MALAGA (ES) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , Pädagogische Hochschule Vorarlberg (AT) , EUROPEAN UNIVERSITY CYPRUS (CY)
Topics New innovative curricula/educational methods/development of training courses ; Inclusion - equity ; Pedagogy and didactics

Project Summary

Professional Learning Communities (PLC) are internationally highly appreciated to serve school development and thus better pupils' achievement. In a previous ERASMUS+ project (HeadsUP) broad experiences on establishing and developing PLCs of school principals and of teachers were gained and two important perspectives were finally deduced: (1) For real understanding what successful PLC work requires and how it is done effectively it needs to be experienced personally (2) and this experience should be provided early enough to equip teachers with methods of necessary professional development. Thus already student-teachers should become familiar with this method during teacher education at university. Courses on practical issues at university as much as phases of internship/practicum offer the opportunity to anticipate the later job as much as to practice PLC work and get familiar with its requirements and chances.

The consortium consists of a group of experts that are highly experienced in setting up and accompanying PLCs. These partners are also experts on teacher education and bring out university courses and accompany internship/practicum on a regular basis. They aim at bringing the knowledge of effective PLC work into university didactics by experiencing and reflecting on students' PLCs. The project is to establish students' PLCs and accompany them to provide the chance for the teacher-students to experience this special form of productive cooperation for learning and professional development. Against the background of different university programs and traditions the project builds up different models of student-teachers' PLCs (SPLC) according to local possibilities: (1) collect experience on long-term SPLCs (a semester or more) and on a short term (a couple of weeks), (2) develop combined PLCs of student- and mentoring-teachers. Furthermore, the consortium includes the perspective (3) how to work with school principals and with university staff on how to foster students' PLCs and combined PLCs of students and mentoring teachers.

The project provides 6 Intellectual Outputs on three levels: (1) Academically required information like a Transnational Report on the status quo of student-teachers' PLCs and an Evaluation Report on urgently needed results on requirements and benefits of students' PLCs and the chances and limitations of combined PLCs of students and mentoring teachers. (2) Materials to guide the establishment and facilitation of student-teachers' or combined PLCs as a Manual. (3) Materials for the practical support of teacher educators who support students' or combined PLCs like Tool Kits of methods and Modules for Communication.

The 5 universities and 1 school authority will establish on at least two semesters courses/seminars working with the method of students' PLC with altogether approximately 120 students (Weingarten, Malagá, Feldkirch, Norway), 2 combined students and mentoring-teachers' PLCs of about 10-12 persons (Cyprus, Sweden) and at least 1 group of school leaders (15 persons) reflecting on the chances on establishing and facilitating the two versions of PLCs above at school in the service of school development (Trondheim).

The project advances the experience with this often discussed instrument of professionalization and promotes it into early teacher education and university didactics. It also shows the possibilities for full teachers to also benefit from a combined PLC e.g. to get up-to-date by learning from current scientific knowledge that student-teachers possess. The impact will be on the students getting familiar with PLC work and to use it early in their education at university and later on for their professionalization on the job. Also, the consortium will provide ideas attendant reflection of school leaders how combined student and mentoring-PLCs in future can be initiated more often and contribute to school development. For the (inter)national debate on teacher education the results of the project will be informative and be brought out in practical and scientific publication. Furthermore, the project provides 6 local and 1 international Multiplier Event. This last one will be advertised by an international call of proposal and thus spread the idea and the projects' results far into the field of education and tertiary education in Europe and beyond.

Having gotten familiar with PLC work the student teachers will be able to take up this instrument again when they are part of a school's staff. Also with a wider networking in the matter of PLC for school development the

establishment of the instrument in schools and across schools can be expected as much as adjustments in the mainstream of professional development in the school system.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Research Circulation in Teacher Education

Project Coordinator

Organisation UNIVERSITY COLLEGE SYDDANMARK
Address DEGNEVEJ 16 , 6705 ESBJERG , DK
Website www.ucsyd.dk

Project Information

Identifier 2018-1-DK01-KA203-047069
Start Date Sep 1, 2018
End Date Aug 31, 2021
EC Contribution 274,460 EUR
Partners EUROPEAN UNIVERSITY CYPRUS (CY) , Vonsild Skole (DK) ,
PAEDAGOGISCHE HOCHSCHULE WEINGARTEN (DE) , LINKOPINGS
UNIVERSITET (SE) , NORGES TEKNISK-NATURVITENSKAPELIGE
UNIVERSITET NTNU (NO) , UNIVERSITA CATTOLICA DEL SACRO
CUORE (IT) , The Municipality of Linköping (SE) , JYVASKYLAN
YLIOPISTO (FI)
Topics Research and innovation

Project Summary

It is widely recognized that connections between research and practice in education need to be strengthened. Amongst other things, the collaboration between schools and universities, the R & D competence of teachers and the ways in which academic researchers share research results should be enhanced.

The aim of RECITE is to highlight a range of responsible practices in the production and circulation of research within teacher education and to create effective strategies for research governance, which can be adopted in the partner organizations and beyond.

Experience with previous and ongoing Erasmus + projects in teacher education (UPP science, PROTEUS, SATE, e-INFO-TED) has demonstrated that enhanced collaboration between schools and universities, and a stronger focus on research can provide multiple benefits for teaching and learning.

The RECITE proposal addresses research topics and governance practices, firstly by making them visible, and secondly by sharing innovative practices across the partner institutions, which are all involved in teacher education research. This will have the effect of putting teacher education ahead of other disciplines in research management practice, and will help to establish teacher education research as a significant discipline. RECITE will achieve impact by producing locally adapted research strategies, as well as a generic guide to establishing research governance strategies beyond the immediate reach of the project. It will also use teacher education as an example of how innovative strategies can transform research cultures and produce real benefits for its ultimate beneficiaries - children and young people.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

European Lean Enterprise Alliance Network



Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , NO
Website www.ntnu.no

Project Information

Identifier 2015-1-NO01-KA203-013288
Project Web Site <http://euroleanplus.org>
Start Date Sep 1, 2015
End Date Aug 31, 2018
EC Contribution 349,475 EUR
Partners Ringoplast GmbH (DE) , NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO (NL) , KONGSBERG MARITIME AS (NO) , BOSCH Scharnieren en Metaal BV (NL) , UNIVERSITEIT GENT (BE) , STIFTUNG FACHHOCHSCHULE OSNABRUECK (DE) , STICHTING HOGESCHOOL VAN ARNHEM ENNIJMEGEN HAN (NL)
Topics Enterprise, industry and SMEs (incl. entrepreneurship) ; New innovative curricula/educational methods/development of training courses ; Open and distance learning

Project Summary

Lean Manufacturing works well in a repetitive, high volume, low complexity/customization and stable demand environment. However, European manufacturers that operate in a high-variety, low-volume (HV/LV) production environment, are also inclining towards Lean manufacturing due to its benefits. Due to the differences in characteristics between the two production environments, implementation of traditional Lean approaches in HV/LV production environments is challenging. Existing “Customized Lean” approaches are less known because of the scattered and fragmented nature of knowledge and its ad-hoc implementation according to specific local context. To unify this body of knowledge a transnational approach was required.

The goal of EuroLEAN+ was to create, unify, capture, reuse and disseminate the knowledge on Customized Lean by combining innovative teaching approaches with the development of more relevant HE curricula in the field of Customized Lean, through the exploitation of the geographically dispersed knowledge contained within the consortium and their industrial relationships. To work toward this goal, following objectives were set for the project:

- 1) To create a knowledge base of case studies and best practices that brings together the knowledge that is currently scattered across the partners and their contacts with many SMEs in various industries.
- 2) To develop and share teaching material to be included in European HE courses.
- 3) To increase experience of academic partners in innovative teaching such that they can apply it broadly across their curricula.

Participants:

- 1) NTNU (Dept. of Mechanical and Industrial Engineering) - expertise in global production strategy, lean production logistics, and supply chain management
- 2) HAN University of Applied Sciences – experience in teaching a customized Lean and QRM and industry projects; globally active research group in Lean for HE
- 3) University of Applied Science Osnabrück - experience in research and teaching in the interdisciplinary field of lean management and technology, and applied science approaches to development of SMEs
- 4) Ghent - expertise in the areas of operational excellence, and tools and technologies for remote and blended learning
- 5) TNO – research organization with large network in industry and previous (EU) project experience in collecting cases and best practices into databases
- 6) Kongsberg Maritime – Norwegian producer of subsea solutions
- 7) Bosch Hinges – Dutch producer of bespoke hinges and exemplar for QRM principles

Main activities undertaken:

- 1) To facilitate knowledge exchange between higher education students, academic staff and industry: Customised Lean Knowledge Community Website and pages on Facebook, LinkedIn, Twitter, and YouTube setup; Webinars, seminars, workshops and presentations at conferences held by consortium members.
- 2) Open Knowledge Base of methods and case studies on Customised Lean developed with possibility for expansion.
- 3) Open online master course developed with original content (video lectures) from the EuroLEAN+ consortium; and recommended external content. Several target groups identified and analysed before course development, ensuring high relevance and utility of the course material.
- 4) Feasibility Study of a Joint Master Program conducted to gain insight into the possibility of developing an Erasmus+ joint master program (JMP) with the current partners within 5 years after the EuroLEAN+ project.
- 5) QRM World Conference organised at Eindhoven, Netherlands in June 2018 by the QRM Institute in

association with EuroLEAN+; utilised for highlighting application-oriented scientific studies and best practices, discussing follow-up activities of the EuroLEAN+ alliance network, disseminating project results for attendees of the conference, and sharing the summary of key activities and financial management.

6) 13 publications (journal papers/conference papers/book chapters) by the consortium members in the project duration

Results, impacts and long-term benefits:

- 1) Various academics-industry partnerships established, and foundations laid for sustaining these partnerships through future alliances.
- 2) Knowledge on customised lean made available through knowledge base for personal learning or for lectures/group discussions.
- 3) Teaching material developed and included in European HE courses, followed by live testing and evaluation through feedback.
- 4) Findings from the feasibility study highlighted themes that are under-emphasised in European courses and are important for future industrial developments. Outline proposed for a prospective future master program; and inspired by the analysis, Lean Engineering Master of Engineering program introduced at HAN University of Applied Sciences. Need for future Knowledge Alliance also identified as a result of the findings.
- 5) Contributions made to the existing body of knowledge on Customised Lean, preparing for dissemination and exploitation of the created knowledge.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

ENvironmental Socio-Scientific Issues in Initial Teacher Education

Project Coordinator

Organisation Pädagogische Hochschule Freiburg
Address Kunzenweg 21 , 79117 Freiburg , BADEN-WÜRTTEMBERG , DE
Website www.ph-freiburg.de

Project Information

Identifier 2019-1-DE01-KA203-005046
Start Date Sep 1, 2019
End Date Aug 31, 2022
EC Contribution 446,984 EUR
Partners UNIVERSITEIT UTRECHT (NL) , ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON (EL) , UNIVERSITAET KLAGENFURT (AT) , UNIVERZITA KARLOVA (CZ) , UNIVERSITA TA MALTA (MT) , HACETTEPE UNIVERSITESI (TR) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , University of Nicosia (CY) , INSTITUTE OF MATHEMATICS AND INFORMATICS AT THE BULGARIAN ACADEMY OF SCIENCE (BG) , UNIVERZITA KONSTANTINA FILOZOFA VNITRE (SK)
Topics Civic engagement / responsible citizenship ; Social/environmental responsibility of educational institutions ; New innovative curricula/educational methods/development of training courses

Project Summary

Our Erasmus+ Project ENSITE (ENvironmental Socio-Scientific Issues in Initial Teacher Education) supports the development of future science and maths (from now on referred to as science) teachers' environmental citizenship and related teaching competences.

We face severe global environmental challenges such as deforestation and plastic waste. Europe's society needs to acknowledge these challenges and accept their role in supporting sustainable development. Our educational systems have to fulfil the obligation to enable citizens to do so. Science education, in particular, must equip them with the ability to find adequate technological solutions.

ENSITE supports this endeavour. Research proposes the engagement of socio-scientific issues (SSI) as one promising path to developing environmental citizenship competences. However, science teachers graduating from higher education (HE) institutions are not prepared to teach SSI, because they not only require teaching "scientific facts" but also involve controversial information, complex data sets and ethical, social, economic or cultural motives. Such aspects are rarely covered in initial teacher education (ITE).

We aim at improving HE by including environmental SSI in science ITE. To this end we will develop an innovative approach to support teachers in (1) developing competences in dealing with environmental SSI ("Learning") and (B) acquiring teaching skills to supporting their future students at school in becoming responsible citizens ("Teaching") themselves.

ENSITE consists of 11 HE teams from institutions across Europe comprising experts in science education (research and practice), environmental issues, pedagogical concepts to acquire transversal and forward-looking skills (e.g. critical thinking, creativity, reasoning, reflection), students' mobility, diversity in science courses/classrooms and large scale dissemination. All partners acknowledged that their educational science courses rarely cover citizenship education and see huge potential with regard to benefits for them and their students.

We decided on a thoroughly elaborated range of activities to produce purposeful results.

Our research activities cover the development of 13 teaching modules on environmental SSIs for future science teachers. These intellectual outputs (IOs) cover subject knowledge on SSIs (definitions, topic areas, relevance, etc.) and how to deal with them, implications for learning/teaching processes, pedagogical concepts to design lessons, and the role of teachers' background (beliefs, cultural, etc.) which affects teaching SSIs.

In order to ensure highest quality and a convincing red thread relating to our overall topic (environmental citizenship education), each research activity follows a clear methodology: In our iterative design process, each development phase is followed by a review and pilot, optimisation loop and, finally, production. Every partner has precisely defined responsibilities.

Project meetings will be organized to support internal communication.

We perform several pilot activities validating our IOs at partner HEI and paving the way for long-term implementation. We use feedback from participating teaching staff and students to improve our IOs (content, user-friendliness, media format, impact etc.).

We will also disseminate our results in three subsequent summer schools. Thus, in every project year we will reach out to future science teachers across Europe. We will present our IOs, engage students in a variety of innovative activities and stimulate inter-cultural and social experiences. Feedback collected during our summer schools will be used to further improve our materials.

We organize (national and international) multiplier events to promote the project among relevant educational stakeholders, initializing dialogue on the matters at hand and substantiate our findings, as well as boost

sustainable dissemination and exploitation.

We plan several targeted European-wide and national communication, dissemination and exploitation activities, such as establishing a web portal, pursuing a flexible and modern social media strategy or scientifically present our research findings.

We expect ENSITE to boost innovation in HE and more particularly science ITE across Europe. This will lead to a substantially higher number of HE educators with a versatile range of scientific, transversal skills, citizenship competences and related teaching competences. In the longer term, this contributes to a widespread shared awareness of social and environmental responsibility.

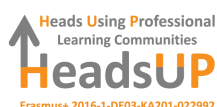
Our open-access materials will support Europe's science teaching staff to benefit beyond project duration. Our materials will particularly allow each partner HEI to strengthen their trans-national collaboration, implement innovative approaches in their science ITE programmes and facilitate institutional change, raise their reputation, and actively contribute to Europe's smart, sustainable and inclusive growth.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for school education

Project Title

Heads Using Professional Learning Communities



Project Coordinator

Organisation PAEDAGOGISCHE HOCHSCHULE WEINGARTEN
Address KIRCHPLATZ 2 , 88250 WEINGARTEN , BADEN-WÜRTTEMBERG , DE
Website www.ph-weingarten.de

Project Information

Identifier 2016-1-DE03-KA201-022992
Project Web Site <http://www.plc-headsup.eu>
Start Date Oct 1, 2016
End Date Aug 31, 2019
EC Contribution 229,105.46 EUR
Partners UNIVERSIDAD DE MALAGA (ES) , The Municipality of Linköping (SE) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , EUROPEAN UNIVERSITY CYPRUS (CY) , Pädagogische Hochschule Vorarlberg (AT)
Topics Inclusion - equity ; Quality Improvement Institutions and/or methods (incl. school development) ; Integration of refugees

Project Summary

Successful students' learning in inclusive settings also integrating refugee and migrated children well is the overall goal of current school development activities in Europe. Empirical results prove that school leaders (SL) can influence better teaching and classroom management by setting up structures for teachers' learning. Professional learning communities (PLCs) are broadly discussed as successful method for teachers' development. For leadership development they are hardly known, though. The HeadsUP project developed the method for professionalization of SL leaders to get them well experienced in PLC-work and raise their competencies on leadership and school development. According to this experience, school leaders focus better on their teachers' learning and invest in setting up teacher-PLCs in their schools and thus contribute to better students learning. This Double-decker model is the core idea of the project.

In the field of leadership training the project is unique because it closes the gap that arises from an internationally run debate on leadership development that is not consequently leading into internationally linked learning opportunities. In the international scientific community, leadership development is a broadly discussed topic, but still there is little connection between the international debate and the ongoing training of school leaders, which is usually carried out with a national or even just regional orientation. The project "HeadsUP- Heads Using Professional Learning Communities" will overcome this gap by connecting leadership development on a transnational level and arrange a wide learning opportunity across counties. Combining the activities of regional working SL-PLCs in each country with transnational exchange methodically structured meetings, leadership conferences and through learning material, the project provides learning opportunities ranging from good-practice in leading and teaching diversity all over the countries to scientific expertise.

In the project finally 22 SL-PLCs with 3-6 SL each work in six European countries. The partners laid out a learning environment by additionally facilitating the PLCs and getting them connected on several occasions in the transnational network. Most of the SL initiated teachers-PLCs at their schools. Some focused primarily on their own learning and development of their PLC. The five universities, Weingarten, Feldkirch, Trondheim, Nikosia und Málaga and one municipality, Linköping, worked successfully together in the project and managed to gain new differentiated knowledge on SL-PLCs and how to run them successfully. The new knowledge they turned into five intellectual outputs which adress different audiences. A comprehensive Manual provides conceptual and practical hints for setting up PLCs. An Evaluation Report offers an empirical analysis of requirements, processes, benefits etc. of SL-PLCs. The Guideline gives a short introduction into the project, the method and some leading orientation for the establishment of SL-PLCs and leads readers to the Webpage. The webpage provides all intellectual outputs and give various insights in the activities and results of the multiplier events and the experiences by the participants (www.plc-headsup.eu). Since the multiplier events were carried out as leadership conferences always referring to both, teaching successfully in inclusive settings and professionalizing well with PLCs, what there is to learn can be retraced by slides, pictures and summaries. Finally, a Learning Platform serves as an example how to support PLCs by blended learning and what kind of material and ways to exchange can be applied.

Through the intellectual outputs the consortium distributed the new method and the results of the exploration to the practical and also to the scientific discourse on professional development at national/international conferences, by publications in scientific and school oriented papers and numerous exchanges, some conserted expert talks within the regional networks. It adresssed two main groups of stakeholders: schools, school authorities and staff committees, teacher trainers and researchers in the field of leadership and school development. Current discussions in the network of the partners are enriched by the experiences won in the project. Setting up SL-PLCs was an initial point for the project team to engage furthermore in developing schools with PLCs. Even after the project ended the consortium still disseminates the results towards the two discourses and quotes it in all

the papers the partners write on PLCs. Currently the consortium engages additionally in adapting the method to other groups in the education system in order to have the benefit of the great idea also at universities (students-PLCs) and at higher level of school authorities (directors-PLCs). Practicing PLCs already in university studies provides schools with teachers that are already competent on PLC-work in the future.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Serious Games and Welfare Technology



Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , NO
Website www.ntnu.no

Project Information

Identifier 2016-1-NO01-KA203-022052
Start Date Sep 1, 2016
End Date Aug 31, 2018
EC Contribution 225,990.15 EUR
Partners 3D Motion Technologies AS (NO) , FACHHOCHSCHULE VORARLBERG GMBH (AT) , STICHTING HOGESCHOOL VAN AMSTERDAM (NL) , INSTITUTE OF TECHNOLOGY CARLOW (IE) , Hochschule Bonn-Rhein-Sieg (DE)
Topics ICT - new technologies - digital competences ; Health and wellbeing ; Enterprise, industry and SMEs (incl. entrepreneurship)

Project Summary

Context/background of the project

One of the great challenges of our time is keeping people healthy throughout their lifespan. Many European countries are experiencing an increase in life expectancy alongside the possibility of more treatable diseases. Therefore, there is an increasing cost to healthcare and one has to look for new options for rehabilitation or maintaining public health. This brings new challenges to the healthcare system both in caring for the elderly as well as in ordinary rehabilitation programmes. Multidisciplinary cooperation in the intersection between technology and different health disciplines is a precondition for innovation in this area and for developing technological solutions to address social challenges and enabling related industry. Fall prevention, increased focus on physical activity and mental health, and training in rehabilitation institutions or in home settings are examples of possible applications for serious games.

Objectives

The aim of this project was to promote collaborative learning through industry partnered, interdisciplinary, student centred projects and develop innovative solutions within welfare technology.

The project partners have the following complementary experience and competences:

Norwegian University of Science and Technology (NTNU): E-Learning, MOOCs, Serious games, Real time human motion capturing and gait analysis, physiotherapy, Occupational therapy, Nursing, Clinical experience with serious games used at spinal cord injury units.

Fachhochschule Vorarlberg (FHV) Serious games, 3D motion Capturing, Modelling and Visualization, User-experience with Ambient Assisted Living (AAL), Gaming-Simulation

Hochschule Bonn-Rhein-Sieg (HBRS): Research, development and validation of hardware and software for safety- and security-critical systems and components, Safety, Robotics

Institute of Technology Carlow (ITC): Serious Games design, Development and sports rehabilitation, Internet of Things

Stichting Hogeschool van Amsterdam (HvA): Privacy and Ethics, Internet of Things, Serious Games design and development

3D Motion Technologies AS: The developer of a real time human motion capturing system. Their system is an optical based system using cameras to compute 3D positions of a set of markers. Advanced calibration and tracking algorithms ensures high precision 3D-measurements.

Description of undertaken main activities

The projects followed an agile/iterative learning model when designing the projects activities and it was linked into each HEI's curriculum to satisfy the academic requirements for the students. 1 year: Teachers developed learning materials (MOOC), a collaborative learning model (CLM) and recruited client companies and students to the project. The MOOC was specifically designed to teach both healthcare and technological students about how to create an exergame. 2nd year: Enrolled students followed the CLM that made them progress from initial briefing of a problem to developing a final product – a functional exergame. The CLMs components consist of the following: a MOOC, developing a serious game prototype (co-located and distributed collaboration) and Graduation projects. The MOOC allowed all students to gain an introductory level of knowledge in all topics, while students from each specialisation would be expected to take the lead in any further research needed for the projects. The students were split into multinational and multifunctional teams and was assigned to projects originated by a client company. During the last period, some of the students went abroad as Erasmus+ mobility students to continue the work on the prototype as part of their graduation project whereas other students joined them at their own home universities. The students tested the prototypes with the end-users and improved them to

come up with their final working products. Mentoring was provided to the teams by the teachers and client companies.

Results and impact attained

The collaborative learning approach adopted proved to be successful in producing graduates who can effectively participate in multi-disciplinary projects. Close collaboration with the client companies was beneficial to the students' learning in terms of timely clarification of requirements and validation of solutions. The students indicated that the MOOC increased their perception of the problem and issues involved, and the assignments given by companies were perceived as relevant. All HEIs involved, were dedicated, committed, and actively assisting students during the project. There has been a vast amount of knowledge exchange between professors of the HEIs regarding course development, teaching approaches and evaluation methods. Students that finished their graduation projects received compliments on the final developed serious game prototypes from client companies and the graduation projects were largely deemed of high quality by the HEIs.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Sector Skills Alliances in vocational education and training

Project Title

Futureproof Skills for the Maritime Transport Sector

Project Coordinator

Organisation STICHTING STC-GROUP

Address LLOYDSTRAAT 300 63140 , 3024 EA ROTTERDAM , Zuid-Holland , NL

Website www.stc-group.nl

Project Information

Identifier	601186-EPP-1-2018-1-NL-EPPKA2-SSA-B
Project Web Site	https://www.skillsea.eu/
Start Date	Jan 1, 2019
End Date	Dec 31, 2022
EC Contribution	3,996,555 EUR
Partners	TALLINNA TEHNIKAULIKOOL (EE) , SVENDBORG INTERNATIONAL MARITIME ACADEMY (DK) , UNIVERSIDAD DE CADIZ (ES) , HOCHSCHULE BREMEN (DE) , LIVERPOOL JOHN MOORES UNIVERSITY (UK) , HAMBURG SCHOOL OF BUSINESS ADMINISTRATION GGMBH (DE) , CORK INSTITUTE OF TECHNOLOGY (IE) , PANEPISTIMIO AIGAIU (EL) , FORMARE POLO NAZIONALE FORMAZIONE PER LO SHIPPING (IT) , SECRÉTARIAT GÉNÉRAL DE LA MER (FR) , SHIPYARDS AND MARITIME EQUIPMENT ASSOCIATION OF EUROPE (BE) , EUROPEAN TRANSPORT WORKERS FEDERATION (BE) , ECOLE NATIONALE SUPERIEURE MARITIME (FR) , EUROPEAN COMMUNITY SHIPOWNERS ASSOCIATIONS (BE) , IDRYMA EVGENIDOU (EL) , BLACKPOOL AND THE FYLDE COLLEGE (UK) , ENTERPRISE SHIPPING AGENCY SRL (IT) , NAUTILUS INTERNATIONAL (UK) , DANSKE REDERIER (DK) , SOFARTSSTYRELSEN (DK) , STENA LINE SCANDINAVIA AB (SE) , SINDICATUL LIBER AL NAVIGATORILOR DIN FLOTA MARITIMA (RO) , OGOLNOPOLSKI ZWIAZEK ZAWODOWY OFICEROW I MARYNARZY (PL) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO) , UNIVERSITATEA MARITIMA DIN CONSTANTA (RO) , POMORSKI FAKULTET U RIJECI (HR)

Project Summary

Skillsea will foster cooperation on a European level between the industry, education and training providers and authorities to develop a strategy to make the education and training for maritime professionals future proof, adaptable and attractive, to provide maritime professionals with the correct skills for the labour market and to ensure sustainability of the European maritime industry. Besides development of the strategy, the project will support implementation of the strategy and products developed during and after the lifetime of the project. Thereby, Skillsea will provide a concrete, sustainable solution for the qualitative and quantitative mismatch between demand for and supply of labour, will increase labour mobility within the sector (horizontal, vertical and geographical) and enhance attractiveness of the sector. Skillsea follows the approach of skills needs identification (current, medium term and long term), design and delivery of VET, the development of strategy as well as stakeholder mobilisation and awareness raising as sustainable implementation.

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Strategic Partnerships for higher education

Project Title

Professional Teacher Education through University Schools

Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , NO
Website www.ntnu.no
Contact Thomas Dahl , +47 7359 1990 , thomas.dahl@plu.ntnu.no

Project Information

Identifier 2015-1-NO01-KA203-013255
Start Date Sep 1, 2015
End Date Aug 31, 2017
EC Contribution 189,544 EUR
Partners LINKOPINGS UNIVERSITET (SE) , TRONDHEIM KOMMUNE (NO) , PENZA STATE UNIVERSITY (RU) , PAEDAGOGISCHE HOCHSCHULE WEINGARTEN (DE) , THE UNIVERSITY OF EDINBURGH (UK) , Charlottenlund Upper Secondary School (NO) , UNIVERSITY COLLEGE SYDDANMARK (DK) , Isis Innovation Ltd (UK)
Topics Pedagogy and didactics ; New innovative curricula/educational methods/development of training courses ; Reaching the policy level/dialogue with decision makers

Project Summary

CONTEXT/BACKGROUND

PROTEUS started with a key question in education from the EC: “How to inspire teachers to be proactive, reflective professionals who take ownership of their own professional development?” There is an international drive to enhance collaboration between teacher education, largely based in universities, and schools.

The aim of PROTEUS was to enable key stakeholders to better integrate the academic and practical elements of learning to teach, by investigating the effectiveness of initiatives that promote university/school collaboration, such as university schools. At the same time PROTEUS has, with the involvement of teacher educators, teacher mentors and student teachers developed understandings of ‘new professionalism’, across boundaries of research and teaching practice. With the involvement of different stakeholders to teacher education, PROTEUS has also involved larger sets of actors with ideas and exchanges of experiences that can contribute to the development of teacher education.

OBJECTIVES

The main objectives of PROTEUS have been:

1. To identify the opportunities and constraints of existing university/school collaborations
2. To evaluate the potential of ‘university schools’ as a specific model of university/school collaboration
3. To evaluate the capacity of university/school collaborations to develop 21st century professionalism

PARTNERS

PROTEUS consists of seven universities/university colleges and two university schools, covering all levels of initial teacher education, from primary to higher secondary schools. The partners represent a broad range of European education systems and hence are able to produce detailed evidence about the opportunities and constraints of university/school collaboration and its integration into national systems.

ACTIVITIES

PROTEUS has worked with a range of university/school collaboration models. Participants saw these approaches at first-hand and, through transnational meetings and the production of the PROTEUS intellectual outputs, considered their strengths and weaknesses, whilst learning from each other.

RESULTS

The project has produced knowledge about university/school collaboration, both locally at the partner teacher education institutions and internationally, through exchange visits and workshops with student teachers, school (mentor) teachers and university staff. The following basic principles have emerged from the work of PROTEUS:

- 1) The ultimate goal of teacher education, as implemented through USPs, is to provide pupils with the best possible educational and personal outcomes from their time in school.
- 2) A subsidiary goal of USPs is to make the teaching profession sustainable, by increasing the effectiveness of teachers whilst reducing stress, burnout and attrition.
- 3) University schools, as a subset of USPs, should be research-informed, meaning that they actively refer to research results as evidence for pursuing specific practices, but with a critical and inquiring attitude to research, and with the possibility of pursuing research in specific local contexts.
- 4) University schools should be a form of clinical practice, involving varying degrees of responsibility and with active dialogue between student teachers, mentors and other in-service teachers, as well as teacher educators and researchers.
- 5) USPs should maintain mutual respect and understanding between all partners/stakeholders
- 6) Mutual expectations should be clarified at an early stage in partnership development.
- 7) Systematic Teacher Professional Development should be an integral part of USPs
- 8) USPs should have a clear plan for mentoring new teachers, as part of an induction scheme, even if this is not mandatory at national level.
- 9) The roles of PhD and masters studies within USPs should be agreed at an early stage and steps should be

taken to maximise the value of such studies to participating schools, for example by aligning research topics to local issues in teaching and learning.

10) Spatial factors should be taken into account in USPs. Staff should feel at home in both school and university environments, with the possibility of a 'thirdspace' for dialogue or 'trialogue' involving all stakeholders.

11) Spreading the word about the benefits of USPs is important, and communication channels and messages should be discussed by all partners/stakeholders.

As a summary recommendation, we suggest that schools and universities involved in teacher education should create long-term structures to support ongoing dialogue regarding their relationship. This should cover not only practice arrangements for student teachers, but also the role of research and researchers in both school- and university based teacher education.

IMPACT

Partner institutions enabled to reflect on, and refine, their collaboration practices.

LONGER-TERM BENEFITS

Better pupil outcomes

Reduced teacher attrition

More cost-efficient teacher education

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them

Key Action: Cooperation for innovation and the exchange of good practices
Action Type: Knowledge Alliances for higher education

Project Title

Lean European Action-learning Network utilizing Industry 4.0

Project Coordinator

Organisation NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
Address HOGSKOLERINGEN 1 , 7491 TRONDHEIM , Norway Extra-Regio , NO
Website www.ntnu.no

Project Information

Identifier 601227-EPP-1-2018-1-NO-EPPKA2-KA
Start Date Jan 1, 2019
End Date Dec 31, 2021
EC Contribution 999,940 EUR
Partners MBI BV (NL) , KONGSBERG MARITIME AS (NO) , MITSUBISHI ELEVATOR EUROPE BV (NL) , ROSEN TECHNOLOGY & RESEARCH CENTERGMBH (DE) , STIFTUNG FACHHOCHSCHULE OSNABRUECK (DE) , UNIVERSITEIT GENT (BE) , STICHTING HOGESCHOOL VAN ARNHEM ENNIJMEGEN HAN (NL)

Project Summary

Lean Manufacturing is widely recognized as the preferred, tried and tested approach to create highly efficient processes in European industry. Its application has led to significant growth in productivity, revenue, employment, and sustainability across an array of sectors. Now, the fourth industrial revolution will change the way factories work - presenting new challenges and opportunities for European manufacturing industry to remain innovative and competitive. LEAN 4.0 will educate the operations managers of the future. We anticipate the European manufacturing industry's future need for new skills, knowledge and experience required for combining Lean Manufacturing with the disruptive technological innovations of Industry 4.0. LEAN 4.0 is a collaborative initiative between four leading Higher Education Institutions and four industrial enterprise to integrate Industry 4.0 smart technologies with the proven Lean Manufacturing paradigm. The four partner countries face many of the same skill development challenges, and are all preparing to address this significant gap in knowledge and practical experience. Together, LEAN 4.0 shall prepare European Manufacturing for the challenges that lie ahead. The readiness for Industry 4.0 technologies in Northern Europe's high-value manufacturing industry will be assessed in the discrete manufacturing operations of the four industry partners. LEAN 4.0 will be the reference project on how to link HEI and industry using pilot implementations, where students, academic staff and industry practitioners collaborate to solve challenging, real-world problems, and share their experiences among HEIs and manufacturing companies throughout Europe.

Link to project card: [Show project card](#)

Key Action: Learning Mobility of Individuals
Action Type: Erasmus Mundus Joint Master Degrees

Project Title

Master's programme in Security and Cloud Computing

Project Coordinator

Organisation AALTO KORKEAKOULUSAATIO SR
Address OTAKAARI 1 , 02150 ESPOO , Helsinki-Uusimaa , FI
Website <http://www.aalto.fi>

Project Information

Identifier 586541-EPP-1-2017-1-FI-EPPKA1-JMD-MOB
Project Web Site <https://secclo.eu/>
Start Date Sep 1, 2017
End Date Aug 31, 2022
EC Contribution 2,955,000 EUR
Partners KUNGLIGA TEKNISKA HOEGSKOLAN (SE) , EURECOM (FR) ,
DANMARKS TEKNISKE UNIVERSITET (DK) , TARTU ULIKOOL (EE) ,
NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU
(NO)

Project Summary

SECCLO-Master's programme in Security and Cloud Computing (120 ECTS) is a two-year engineering programme which gives students a broad understanding of the latest and future technologies for secure cloud and mobile computing systems. Students will gain both practical engineering knowledge and theoretical insights into secure systems engineering, distributed application development, network and service architectures, and cloud and mobile platforms. SECCLO focuses on two specific aspects of modern computing systems: cloud computing, which in a broad sense means highly distributed and scalable computation and data storage in data centers as well as physically accessible devices, and information security, which means protection of computation, communication and data from unauthorized access. While cloud computing is a highly technical area that directly enables the implementation of modern ICT services, information security is a cross-cutting requirement that encompasses both technical and non-technical issues. The 120 ECTS credits will be divided into two blocks: two semesters of courses (60 ECTS) will be provided by the entry university Aalto. The first year of the program at Aalto covers fundamental concepts, methods and the latest technologies on secure systems engineering, distributed application development, network and service architectures, ubiquitous computing, and cloud and mobile computing platforms. After first year, the student move to their exit university where they are able to specialize (30 ECTS) in communications systems design (KTH), information security (NTNU), reliable distributed systems (DTU), cryptography (UT) or big data security (EURECOM). The fourth semester is dedicated to thesis research and writing (Master's thesis, 30 ECTS). Summer school and internship are included into the programme. The studies are closely linked with research at the partner universities. The graduates are well trained for international industrial R&D jobs, security engineering and consulting, various expert roles, and doctoral studies at the partner universities and internationally. The programme leads into two national Master of Science degrees (double degree) from those universities where the student has completed his/her studies. The universities participating to SECCLO-programme are: Aalto University School of Science – Aalto, Finland (coordinator); The Royal Institute of Technology – KTH, Sweden; The Norwegian University of Science and Technology – NTNU, Norway; The Technical University of Denmark – DTU, Denmark; University of Tartu – UT, Estonia; EURECOM, France. Associate members: F-Secure Corporation, Finland; VTT Technical Research Centre of Finland; Intel Labs Europe, Germany; Nokia Bell Labs, France; Cybernetica AS, Estonia; GuardTime, Estonia.

Link to project card: [Show project card](#)

Key Action: Learning Mobility of Individuals
Action Type: Erasmus Mundus Joint Master Degrees

Project Title

Master's programme in Security and Cloud Computing

Project Coordinator

Organisation AALTO KORKEAKOULUSAATIO SR
Address OTAKAARI 1 11000 , 02150 ESPOO , Helsinki-Uusimaa , FI

Project Information

Identifier 619612-EPP-1-2020-1-FI-EPPKA1-JMD-MOB
Start Date Sep 1, 2020
End Date Aug 31, 2026
EC Contribution 4,156,000 EUR
Partners DANMARKS TEKNISKE UNIVERSITET (DK) , TARTU ULIKOOL (EE) , EURECOM (FR) , KUNGLIGA TEKNISKA HOEGSKOLAN (SE) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO)

Project Summary

SECCLO-Master's programme in Security and Cloud Computing (120 ECTS) is a two-year engineering programme which gives students a broad understanding of the latest and future technologies for secure cloud and mobile computing systems. Students will gain both practical engineering knowledge and theoretical insights into secure systems engineering, distributed application development, network and service architectures, and cloud and mobile platforms. SECCLO focuses on two specific aspects of modern computing systems: cloud computing, which in a broad sense means highly distributed and scalable computation and data storage in data centers as well as physically accessible devices, and information security, which means protection of computation, communication and data from unauthorized access. While cloud computing is a highly technical area that directly enables the implementation of modern ICT services, information security is a cross-cutting requirement that encompasses both technical and non-technical issues. The 120 ECTS credits will be divided into two blocks: two semesters of courses (60 ECTS) will be provided by the entry university Aalto. The first year of the program at Aalto covers fundamental concepts, methods and the latest technologies on secure systems engineering, distributed application development, network and service architectures, ubiquitous computing, and cloud and mobile computing platforms. The first year ends in a summer school and internship. For the second year, the student move to their exit university where they are able to specialize (30 ECTS) in communications systems (KTH), information security (NTNU), reliable distributed systems (DTU), cryptography (UT) or big data security (EURECOM). The fourth semester is dedicated to master's thesis research and writing (30 ECTS). The studies are closely linked with research at the partner universities. The graduates are well prepared for international industrial R&D jobs, security engineering and consulting, various expert roles, and doctoral studies at the partner universities and internationally. The programme leads into two national Master of Science degrees (double degree) from those universities where the students has completed their studies. The universities participating to SECCLO-programme are: Aalto University School of Science – Aalto, Finland (coordinator) The Royal Institute of Technology – KTH, Sweden The Norwegian University of Science and Technology – NTNU, Norway The Technical University of Denmark – DTU, Denmark University of Tartu – UT, Estonia EURECOM, France Associate members: F-Secure Oyj Oy LM Ericsson AB, Nokia Bell Labs, KONE Oyj, Intopalo Digital Oyj, Eficode Oy (Finland); RISE Research Institutes of Sweden AB; SINTEF AS (Norway); Cybernetica AS, GuardTime AS (Estonia); SAP Labs (France); Intel Labs Europe (Germany); IKERLAN S.COOP (Spain); BMW Group (Germany)

Link to project card: [Show project card](#)

Key Action: Cooperation for innovation and the exchange of good practices

Action Type: Strategic Partnerships addressing more than one field

Project Title

Language Massive Open Online Courses



Project Coordinator

Organisation	Active Citizens Partnership
Address	Papadima 70 , 693 00 Sapes , Ανατολική Μακεδονία, Θράκη (Anatoliki Makedonia, Thraki) , EL
Website	www.activecitizens.eu

Project Information

Identifier	2014-1-EL01-KA200-001542
Project Web Site	http://www.langmooc.com
Start Date	Dec 28, 2014
End Date	Dec 27, 2016
EC Contribution	205,928 EUR
Partners	iberika education group gGmbH (DE) , DACORUM COUNCIL FOR VOLUNTARY SERVICE LTD (UK) , CESIE (IT) , NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU (NO)
Topics	Teaching and learning of foreign languages ; Open and distance learning ; ICT - new technologies - digital competences

Project Summary

Language literacy is an essential life skill for the 21st century. It is a fact that learning a foreign language is a good way to improve brain function and acquire social skills. Moreover it is an effective way to explore other languages and cultures in order to obtain a professional advantage in labour market. As language skills are in much demand the need for related on line courses is widespread.

Also, new innovative technologies open new educational possibilities and change the way that we learn and teach. In fact, changes in digital technologies are happening much faster than our ability to monitor their impact. As a result, the look and feel of learning environments, the role of teachers, the nature of the learner and what and how they learn are being transformed. MOOCs (Massive Open Online Courses) is a new format for distance learning.

The aim of the project is to research the potential of MOOCS in Language Learning, to explore the pedagogical framework of Language MOOCs, to develop a toolkit for the creation and management of Language MOOCs and OERs and to test the use of OERs in language MOOCs in a pilot course.

The consortium is consisted of 5 organisations: 3 NGOs : Active Citizens Partnership from Greece(coordinator), Centro Studi ed Iniziative Europeo from Italy and Community Action Dacorum from UK. One Adult Education Provider, iberika education group from Germany and one Higher Education institution, Hogskolen i Sor-Trondelag from Norway (at the second year of the project HiST has been merged with NTNU). All the partners have active engagement with language training and new pedagogies, the have experience in the design and delivery of language learning courses at different levels and have experience and confidence in the use of ICT tools for teaching and learning.

Main activities of the project are: Production of a publication as to the broad principles through which theory is applied to online language learning and teaching practice, a report contains exploration, classification and evaluation of available MOOCs for language learning, and a complete guideline containing all the core course elements of a Massive Open Online and Interactive Language Learning Environment. Development of Open Educational Resources in 5 partner languages based on authentic materials. Implementation of pilot language learning MOOC for English, Greek, Italian, German and Norwegian. Organization of project Final Conference in UK and 4 national level events in partner's countries.

Further, the strong engagement with language skills as a vital element within the frame of lifelong learning will result in the adoption and integration of MOOCS and OERs on language learning practice. The change expected is improved teaching/learning experience and learners language performance across disciplines and educational levels.

The LangMOOCs project outcomes and expected results and impacts are consistent with European 2020 strategies and its flagship initiatives, especially the Agenda for New Skills for New Jobs, Rethinking Education (2012) and the priorities of the Erasmus+ call uptake in teaching and learning, through the support of learning and access to open educational resources (OER) in the education and training fields, supporting ICT-based teaching and assessment practices and by promoting the transparency of rights and obligations of users and producers of digitised content; contributing to the modernisation of Europe's education systems as outlined in the 2011 EU Modernisation Agenda; contributing to the reduction of low-skilled adults. All the project outcomes are specifically designed for free/open access in order to promote open educational practice and add value to all initiatives mentioned above.

Link to project card: [Show project card](#)

* Results are available for this project. You can click on the link above, and go to "Results" section to view them