



European
Commission

Boosting skills across Europe

The Leonardo da Vinci
Programme



More information on the European Union is available on the Internet (<http://europa.eu>).

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FOREWORD



We have seen over the last few years that there is a clear appetite for sectoral cooperation throughout Europe. Economic sectors do not think in national terms, but in supply chains that run across borders. National funds do not give priority for transnational sectoral cooperation and this is where the European Union (EU) does play and will continue to play a key role.

It's common nowadays to see enterprises with thriving order books desperately looking for skilled staff and offering apprenticeship and training places that remain vacant. At a time when unemployment is unacceptably high, these shortages of vocational skills have become a serious problem in many economic sectors and hamper the growth of many European value chains. Better matching demand for, and supply of, skills may not solve the economic crisis. Yet we still have to take every measure possible to reduce unemployment – especially youth unemployment. The EU's 2010 Bruges Communiqué therefore calls for vocational and educational training (VET) to respond better to labour market needs. We need efforts at all levels to modernise and adapt vocational education and training programmes, so that people learn those skills that make them employable. Up-to-date and constantly evolving VET is therefore crucial for fighting unemployment, and a fundamental factor for economic competitiveness.

In the current lifelong learning programme, half of the Leonardo da Vinci multi-lateral projects that sought to develop and transfer new VET innovations have been sector-based. Key sectors include manufacturing, construction, health and social work, and tourism amongst others.

This strong sector focus can be explained by the intrinsic nature of VET, which aims to meet the **skills needs of specific professions**. By definition, these skills needs belong to economic sectors. In addition, one of the Leonardo da Vinci Programme's policy priorities is the development of labour-market adapted VET programmes that require structured cooperation between the world of work and VET. In some sectors, this has led to the development of new joint EU-wide curricula, diplomas or certificates and related occupational standards, or even the development of a European qualification for a given profession.

Other typical innovative Leonardo da Vinci project results are vocational programmes, courses and modules, teaching and training methods and materials, tools for evaluation and guidance, occupational references, analyses and databases.

The implementation of two concrete European VET tools is also naturally sector-based. European Quality Assurance in VET (EQAVET) and the European Credit system for VET (ECVET) are both strongly linked to the European Qualifications Framework (EQF). Sectoral cooperation is essential to their effective implementation. For example, projects that have elaborated competence standards and certificates which mutually accredit competences and result in credit points have naturally been **profession-** or **occupation-based**. The very purpose of these instruments, to create mutual trust and transparency of skills and qualifications, requires testing and implementation at the sectoral level. Only then does it make sense to adopt the results at national level. Since professional qualifications are sector-based, transnational cooperation among VET stakeholders from the same economic sector across Europe has been of vital importance.

I am delighted to present the brochure 'Boosting skills across Europe'. It offers an attractive and easy-to-understand snapshot of a small selection of successful Leonardo da Vinci sectoral projects that have developed sector-relevant work-based learning and integrated VET into regional economic development, hence improving overall competitiveness.

Androulla Vassiliou

Commissioner in charge of Education, Training, Culture and Youth



INTRODUCTION



Leonardo da Vinci is a European Union programme supporting cooperation and development of vocational education and training (VET) across European borders. People and organisations participating in the Programme have developed vocational skills and enhanced their employability together with their European partners. The Programme has helped people in charge of vocational training or professional development to dramatically improve the potential of their organisations, employees and learners.

The Leonardo da Vinci Programme has opened up new avenues for skills and training, enabling participants to meet and work with organisations that have similar ambitions in other European countries. Together with European partners, VET organisations have involved learners and staff in an exciting range of opportunities and have raised the standard of training provision for all. The different ways of thinking and working of European partners have inspired creativity – providing all the Programme's partners with a platform for innovative ways of teaching and learning professions with added value. Leonardo da Vinci cooperation projects have led to a better understanding of other countries' vocational systems and their qualifications. They have also improved professional guidance for young people, while providing employers and employees with the possibility to acquire the staff and skills that they need to cope with professional, structural and technological changes.

Examples of people taking part in the Leonardo da Vinci Programme include employees looking for professional development opportunities, trainees and apprentices seeking a unique experience learning abroad, and managers involved in developing training provision in their company or organisation.

With financial support from the Leonardo da Vinci Programme, these participants were able to visit potential partners in Europe to discuss possible areas for collaboration. They could also set up small-scale partnerships with other European VET providers, so as to share expertise and experience on issues of mutual interest or to share successful approaches and develop new training courses as part of a large-scale cooperation project.

During its 18 years of existence, the Leonardo da Vinci Programme has supported almost one million training placements for vocational learners, apprentices, vocational teachers and trainers, as well as more than 4500 European cooperation projects.

Of course there is also a European agenda behind this European programme. While VET is mainly the policy responsibility of Member States, the 2002 Copenhagen Process on enhanced European cooperation in VET has made it easier to compare skills, experience and qualifications, and this is boosting European job mobility. This cooperation will continue to be developed, as VET has a key role to play in the EU's future development. The Europe 2020 Strategy calls for investment in skills and lifelong education and training to build an inclusive, prosperous European Union. In 2010, with the Bruges Communiqué, EU Member States, European social partners and European associations of VET providers agreed on a ten year programme of reforms in VET. The Communiqué underlines how high-quality training, which encourages innovative and entrepreneurial thinking as well as the possibility of gaining experience abroad, needs to be available to people from all backgrounds at all stages of their lives.

The Leonardo da Vinci Programme has an important contribution to make to this new agenda. The stories in this brochure highlight just some of the many projects that have helped individuals and organisations throughout Europe to gain and apply new skills and knowledge.

WHAT IS ADAM?



The ADAM (Advanced Data Archive Management) Projects and Products Portal is a lively database, designed to act as a marketing and dissemination tool for projects that have been co-financed by the European Union's Leonardo da Vinci Programme. It also provides other users with a comprehensive electronic reference tool on vocational education and training projects. ADAM is available for any Leonardo da Vinci project to register its details. It currently features over 5 300 projects and 11 600 products from across 32 countries.

Besides including project and product information, ADAM offers users the opportunity to display or search news and events articles, and highlights the 'Project of the Month'.

Designed as a dissemination tool, the portal is a very simple and cost-effective way for users to showcase their innovative project work to an extensive audience, and even to make links with European organisations for future projects.

Receiving an average of nearly 30 000 visits per month, ADAM reaches out to a wide audience across Europe.

Thanks to the specific search functions available on the ADAM portal, anybody interested in a specific theme or sector can track down interesting projects. They can also effectively locate potential partners or organisations for future projects, by calling on search functions such as country, contractor type, region, project type, and project theme.

Furthermore, the ADAM portal offers a selection of projects that represent best practice in general or in fields such as the European Qualifications Framework, quality assurance, the European Credit system for Vocational Education and Training, and inclusion or adapting of vocational education and training to labour market needs. These best-practice projects are easy to identify because they are 'tagged'. This brochure features a selection of some of the very best of them.

www.adam-europe.eu

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AGRICULTURE, FORESTRY AND FISHING

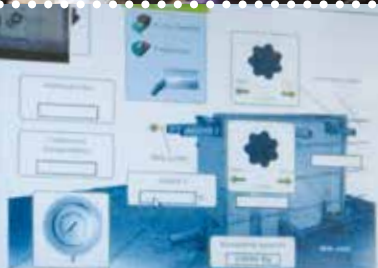
PROJECT

MPV – Modular and Portable
Virtual dairy simulator, Spain

PARTNERS

Finland, Poland, Portugal,
Romania, Spain

[www.adam-europe.eu/adam/
project/view.htm?prj=4026](http://www.adam-europe.eu/adam/project/view.htm?prj=4026)



Simulating dairy industry processes

E-learning will play a growing role in Europe's dairy industry, helped by a dedicated multilingual simulator known as MPV. Both flexible and portable, this tool bridges the gap between training and practical experience of a real plant, without risk of wasting milk or additives.

The European dairy industry employs 400 000 people in some 12 500 companies. But to grow further, it must offer more modern and efficient pedagogical tools to dairy schools' teachers and students.

Adapted simulator

Under the Modular and Portable Virtual dairy simulator (MPV) project, led by Aula de Productos Lácteos (APL)-University of Santiago de Compostela in Spain, five European partners developed a sector-specific tool. 'Our MPV significantly updates a simulator that my institution developed over a decade ago,' says Elena López Colmenero, APL's head of international projects and training. 'The original one assisted e-learning, but was unwieldy and available only in Spanish. Users also needed a week's training before they got started.'

MPV partners selected the earlier simulator's most important modules, creating 28 independent simulation objects to cover the dairy industry's most important production lines. According to Ms. López Colmenero, 'Any learning object may be combined to create different production blocks or lines, such as for cheese-making. Our simulations are easy to use and learn. They're visually appealing too, a bonus for students familiar with video games.'

Combined simulations

Both mobile and flexible, MPV can be integrated into any learning system – online (Learning Management System) or offline, in classrooms or self-training. The learning objects are managed as SCORM packages, SCORM being an international specification standard for creating and sharing structured pedagogical objects in IT systems. An authoring tool was also developed to combine production line simulations.

The MPV simulator is available in English, Finnish, Polish, Portuguese, Romanian and Spanish. Its learning objects will soon be commercialised on the project website. Some are already used by the project's educational partners in training for dairy workers or vocational students. Furthermore, the heat treatment objects have potential application in other food sectors, such as fruit juice. Latin American companies also expressed interest in the new simulator, following a presentation to the Pan-American Dairy Foundation.

The MPV project won a 2011 Leonardo da Vinci Programme prize, in recognition of its quality.

Net language gains for fish farmers

Aquaculture is a European success story, dependent on healthy fish. Under PESCALEX 2, core components of a six-language online course on fish health and disease were transferred and translated for broader use across the continent.

Europe's fish-farming sector accounts for 65 000 jobs and a fifth of its total fisheries production. To ensure its sustainable expansion, Leonardo project PESCALEX created multilingual (EL, EN, ES, FR, NO, PL) course modules and a multilingual glossary in fish health/diseases. These form part of a web-delivered blended learning course.

Follow-on project PESCALEX 2 transferred these materials to wider geographic/linguistic areas (in Hungary, Turkey, and Galicia in Spain), and translated them for use there by industry employees and vocational education providers. The project and its unique fish-health management tools support a more skilled, mobile and multilingual workforce in aquaculture, as well as EU strategic policy on fish-health management in aquaculture.

A forestry education for the 21st century

When learning about trees and forestry management, Slovakian students have mainly relied on traditional books and lessons. Today they also have access to innovative e-learning solutions, following the transfer of modern courses, pedagogical material and expertise from partners in three countries.

Guided by the National Forest Centre in Zvolen, Slovakia, TrainForEducation partners focused on updating forestry education in Slovakia and the Czech Republic. The Slovak partners, a vocational training centre and an SME, were the main beneficiaries of the transfer of blended learning and problem-oriented approaches already used in Austria and Germany.

An open-source e-learning platform was set up, with the Austrian partner's help. Five new online forestry courses were created and tested, complementing current theory courses and fieldwork. In the long term, Slovakian forestry practice should gain a great deal from these ICT-based learning tools and the transfer of research outcomes.

PROJECT

PESCALEX 2 – Provision of online blended learning VOLL learning modules for aqACulture – EXcellence in fish management/ fish pathology, Ireland

PARTNERS

Greece, Ireland, Hungary, Turkey, Spain

www.adam-europe.eu/adam/project/view.htm?prj=5961

PROJECT

TrainForEducation – Transfer of Innovative Learning Techniques over Forestry Education, Slovakia

PARTNERS:

Austria, Czech Republic, Germany, Slovakia

www.adam-europe.eu/adam/project/view.htm?prj=3896



MANUFACTURING

PROJECT
EUR-MODA, Spain

PARTNERS
Czech Republic, Italy, Portugal,
Spain, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=8601



Fast-tracking fashion quality and design

The EU fashion industry's long-term success could depend on vocational training. EUR-MODA has therefore defined the essential skills required by designers and quality control technicians. It also created a prototype solution for integration into a virtual environment – with fashion industry training resources – to deliver those skills across Europe and promote professional mobility.

The project brings together textile industry organisations and training companies from five countries, guided by ASECOM (Madrid clothing and fashion companies association) in Spain. Their main goal was to develop the qualifications of fashion professionals, taking into account sectoral challenges such as competition from Asia.

The partners identified educational gaps, by evaluating the training available to fashion professionals in their home countries. This led to 'competence maps', defining the workplace skills and knowledge needed today by technical designers and quality control staff – which are among the textile sector's two most important jobs.

Core and support processes

A fashion quality controller for example must handle technical inspections, conduct tests and know industry-specific EU regulations. Thanks to a focus group of partners from inside and outside the project, both competence maps have been validated for broad adoption.

The final stage is development of a vocational course for the two target professionals. Partners will call largely on the results of an earlier Leonardo project, E-Code. This developed a competence-based model – now successfully used in Italy, Spain, France and the UK – to improve the training of professionals in banking and in public/private employment services.

The EUR-MODA solution

'Our solution focuses on quality and design,' says Carmen Torres, ASECOM's Managing Director. 'These are vital if Europe's textile industry is to compete with firms in emerging economies.' The solution includes a web-based course, good practice documents on design and quality control, and a library of new Internet videos.

'Our training resources will harmonise EU education in the fashion sector and facilitate professional mobility. It could also help European clothes manufacturers to compete more effectively with Asian counterparts,' says Ms Torres. She believes that Europe's fashion sector will benefit from these European Qualifications Framework-level training resources for the two target profiles, adding that project partners have successfully integrated EUR-MODA's competence maps.

E-learning extended to plastics personnel

Hundreds of thousands of Europe's plastics industry labourers have little or no education. Thanks to E-learning for Plastic Converters, many can now access modern vocational training and education delivering the minimum knowledge and skills they need for their tasks.

Under this project, partners addressed the sector's need for direct and practical training. The main target group was manual staff with limited education and no interest in following long and theoretical classroom lessons.

A generic competence framework was defined for injection moulding/extrusion production workers, machine operators and line managers. This was based on a similar framework created in the European Social Fund project 'Kunststofoperator' (plastics operator), as well as on the European Qualifications Framework. In addition, two Dutch-language plastics-sector e-learning modules – including tests and exercises – were expanded, tested, translated and transferred to three competence levels and to a European scale.

E-learning for integrated design

Modern products and systems need to be innovative, sustainable and competitive. Internationally accredited iDesigner – a multimedia qualification and training programme – meets this challenge by focusing on transversal skills in product development.

Designers once concentrated on a specific phase, such as aesthetics. The trend today is to cover all functional aspects of a product or system, so the design process must include more people from the complete product life-cycle.

The iDesigner project developed a training programme for experienced design engineers, product and system architects, development project managers, and associated industry researchers. Available in English, French, German, Polish and Romanian, its modules include design principles and exercises. These can be delivered online and/or on-site. The programme is part of the European Certification and Qualification Association e-learning portal, so participants can work towards the ECQA Certified Design Engineer certificate.

PROJECT

E-learning for Plastic Converters, Belgium

PARTNERS:

Austria, France, Germany, Spain

www.adam-europe.eu/adam/project/view.htm?prj=6143

PROJECT

iDesigner (Certified Integrated Design Engineer), France

PARTNERS:

Austria, Belgium, Poland, Romania

www.adam-europe.eu/adam/project/view.htm?prj=5537



ELECTRICITY, GAS, STEAM AND AIRCO SUPPLY

PROJECT

AIRE – Adapting and Installing an international vocational training for Renewable Energies, Germany

PARTNERS

Belgium, Denmark, Germany, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=5190



Standardising tomorrow's renewable energy training

As renewable energy is rolled out across Europe, there is a growing need for well-trained technicians to keep installations running. AIRE's solution was to develop easily comparable vocational training standards, covering European Qualifications Framework levels 3 to 5, for use in the private and public sectors. Project partners also came up with an internationally recognised certification system.

By 2020, the EU hopes that renewable energy (RE) will make up at least 20% of its energy mix, encouraging wide-scale adoption of biomass plants, wind turbines and solar panels. These facilities need thousands of people with the right skills and knowledge for maintenance and repair. To that end, AIRE built on a Berlin-based vocational training course in RE and energy management. The project then brought on board partners from Belgium, Denmark, Germany, Spain and Turkey, among them VET schools and institutions.

A common standard

'We developed minimum vocational training standards for RE maintenance and construction staff,' says Dorlies Radike-Thiel, AIRE project manager. 'These standards comply with the EU Energy Directive 2009/28 and are transparent, so can easily be applied at a European or international level.' The partners also assessed current RE courses in their own countries. This led to a new definition of how to equip schools that offer such training plus suggested course content.

The project's other key development was the AIRE certificate. 'It's a simple and easy way to assess a candidate's knowledge, skills and competence, which adds to the qualification's transparency,' notes Ms Radike-Thiel. The certificate also reassures employers that reliable staff will contribute to the longevity, efficiency and sustainability of their installations.

International appeal

Ministries of education in all partner countries have already accepted the AIRE concept as a common basis for European vocational training in RE. Several other European countries, including France and the United Kingdom, are interested in doing the same – for instance through new university master's courses.

'The AIRE approach helps to create high-quality RE training. This leads to more skilled workers and should underpin RE's further development,' says Ms Radike-Thiel. She also expects the AIRE concept to be taken up in the Middle East, North Africa and South America. A project spinoff, the AIRE Network Association, is promoting this international certification and keeps the network running beyond the project.

Pathway to competence in energy performance of buildings

Each new and existing building across Europe will soon require an Energy Identity Certificate. To ensure there are enough qualified technicians to provide them, ENERTEACH developed further training modules plus an e-learning programme.

In the drive to achieve sustainable energy, every building will soon need to provide proof of its energy performance (EP) level and its greenhouse gas emission. These are found in an Energy Identity Certificate, which notably includes an energy performance index. Project ENERTEACH set out to help this sector's

professionals calculate, check and even improve the EP of existing buildings, or to check the EP of new ones during the design phase.

The 14 training modules developed are for teachers in the fields of energy-efficient construction and renewable energy applications in buildings. They are available in Turkish and English, with the core final module (energy certification of buildings) and summaries also available in Italian, Spanish and Romanian.

Springboard for more green jobs

Workers in the renewable energy sector are promised greater professional mobility, thanks to a new multilingual tool. Available online, the tool calls extensively on the European Qualifications Framework (EQF) and the European Credit system for Vocational Education and Training (ECVET).

If Europe is to meet its sustainable growth objectives by 2020, it will need another three million workers in renewable energy and eco-construction. To help achieve that target, the transnational project GREEN developed and tested a European tool to recognise, transfer and capitalise on the knowledge, skills and competences of people working in these sectors.

The project mapped relevant processes and competences, assessed the professional qualifications required in terms of learning results, and assigned them ECVET points. The resulting tool, which includes a converter between National Vocational Qualifications (NVQs) and ECVET, was fine-tuned in companies from each of the partner countries.

PROJECT

ENERTEACH – Development of Further Training Modules in The Field of Energy Efficient Construction and Renewable Energy Applications in Buildings, Turkey

PARTNERS

Germany, Italy, Romania, Spain, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=6160

PROJECT

GREEN – Bridges from grey to greening jobs: moving from the EQF and ECVET principles to exploit new employment opportunities, Spain

PARTNERS

Bulgaria, Finland, France, Lithuania, Spain

www.adam-europe.eu/adam/project/view.htm?prj=8331



CONSTRUCTION

PROJECT

KO-Transfer – Transfer of innovative European concepts for training and certification in energy-saving construction methods, in order to make qualifications acquired in vocational and advanced training more transparent, Germany

PARTNERS

Belgium, Germany, Latvia, Poland, Slovakia

www.adam-europe.eu/adam/project/view.htm?prj=3765



Firmer foundations for tomorrow's construction workforce

Over 60% of employees in Europe's building sector work in countries other than their own. To help employers recruit with confidence and to promote cross-border mobility, KO-Transfer developed several smart training and certification solutions. These allow transparent comparison and recognition of professional competences – with reference to energy-saving and the European Qualifications Framework/National Qualifications Framework – gained in any country.

'When we launched KO-Transfer, most EU Member States had no easy way of assessing the skills and qualifications of building industry employees from other countries,' recalls project manager Grazyna Wittgen, from BGZ Berlin International Cooperation Agency GmbH. 'Our project addressed this gap by focusing on competence comparison and recognition.'

KO-Transfer included 11 partners from five countries, among them building sector firms, schools and training institutes. Its starting point was the 'energy-saving building' module, developed under an earlier Leonardo da Vinci project, Umbau & KO. This module features a standard competence structure and level classification, enabling cross-border certification.

Competences

The partners jointly came up with competence standards and competence matrices. Both cover three professions: carpenters, energy consultants, and technical assistants for data processing in consultancies.

The standards include learning outcome descriptions, with a separate document for each competence. According to Dr Lindemann, from Berlin's Secondary School and VET College of Higher and Further Training for Engineering, 'These transferable standards describe what people can do in various sectors. In Germany for example, painters usually draw up plans for wall insulation. But if a Polish bricklayer holds a certificate such as ours demonstrating competence in insulation, he too could be hired.'

Matrices

The competence matrices highlight professional competences, competence standards and years of training in each area. They also refer to the respective EQF and NQF levels. 'Our matrices are innovative and flexible, offering employers and training providers an overview of someone's academic and non-academic competences,' adds Dr Lindemann.

The energy efficiency in buildings modules are used by several vocational training partners, notably in Brandenburg, Germany and St. Vith, Belgium. KO-Transfer also helped in developing Poland and Latvia's building sector National Qualifications Framework. Presentations of the project's results were also made in Central Asia.

Training upgrade for decorators and painters

Lithuanian vocational training for decorators and painters is now more flexible and personalised, thanks to transfer of best practice and experience from other European experts. The new curriculum offers better adapted courses, including qualifications for all students, with a good balance of gaining knowledge and applying it in a practical situation.

Project DEMOP transferred best practice of using modular training programmes for the profession of a decorator/painter in Scottish vocational education and training (VET) institutions to Lithuanian VET institutes. It called on the experience of other

project partners (from Finland, Romania, Greece) and developed European modular training programmes for the profession of a decorator/painter.

The result is a new modular curriculum for these two key professions, with a corresponding credit system. Both the programmes and teaching material, available in several languages, are adaptable for other European VET institutions.

Edging forward with eco-construction

Construction standards are increasingly geared towards sustainable buildings. In Team Eco-Construction, partners from five countries developed new courses and certification to meet this industry's changing training needs.

Project partners were organisations involved in vocational education, eco-construction, energy education and research, and professional certification. Their main inspiration was four European Directives on the energy performance of buildings. These are driving real change in the construction sector, including European harmonisation of the knowledge and competences of those involved in it.

After assessing the required competences in eco-construction, the project developed online training modules for eco-construction as well as a reference system that covers areas such as competences, training, certification at technician level (e.g. low-energy building), and 'Eco-builder'. It also paved the way for the creation of a European network of eco-construction resource centres.

PROJECT

DEMOP – Development of European Modular Training Programs forDecorator/Painter and their Adjustment in Lithuanian and European VET Institutions, Lithuania

PARTNERS

Finland, Germany, Greece, Lithuania, Romania, Spain, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=3756

PROJECT

TEAM Eco-Construction, France

PARTNERS

Austria, Belgium, France, Latvia, Spain

www.adam-europe.eu/adam/project/view.htm?prj=6121



TRANSPORTATION AND STORAGE

PROJECT

MEP – Maritime Education Platform, Netherlands

PARTNERS

Denmark, Estonia, Finland, Ireland, Netherlands, Norway, Romania

www.adam-europe.eu/adam/project/view.htm?prj=5559



Full steam ahead for continuing maritime education

Keeping up with the latest maritime transport laws and techniques is a challenge even for industry professionals. The Maritime Education Platform (MEP), a new virtual learning space for college lecturers, makes this task easier with high-quality educational material in 12 modules.

Europe's development and prosperity have depended for centuries on maritime transport. Close to 90% of EU external freight trade travels by sea and over 400 million passengers annually pass through European ports. To help this sector's professionals keep abreast of everything from shipping safety to logistics, six maritime educational institutes joined forces in the Maritime Education Platform (MEP) project.

Continual education

An earlier Leonardo project, MariComp, identified the urgency of maritime lecturers updating their knowledge continually. MEP went a step further by bringing together experienced partners from six European countries, to produce and share new educational material for maritime training programmes.

'Our focus was on developing web-based courses for maritime lecturers,' says Jaap Gebraad, the project coordinator, based at STC-Group in the Netherlands. 'Our partners had expertise in no fewer than 20 topics. They developed 12 of these into e-learning modules, which cover areas of common interest such as ship stability, modern marine propulsion, shipping emissions, and liquefied natural gas (LNG).'

The MEP modules all run on Dokeos, a virtual learning platform used in the public and private sectors. This open-source software allows developers to build, distribute and organise courses online. Each MEP module was also peer-reviewed, to ensure it met the project's high quality standards.

Cooperation going forward

Project results were widely disseminated in three separate seminars held in the Dutch city of Rotterdam. Besides MEP partners, these events attracted visitors from 35 other maritime training schools from all over Europe.

According to Mr Gebraad, MEP's virtual learning space will help to ensure the smooth running and safety of the maritime sector, in line with ever-evolving EU and global maritime legislation. 'Our project also formed a solid basis for longer term cooperation, such as a much-needed European cluster for maritime education and training,' he adds. 'Our seas are of international significance and all maritime sector professionals must continually update their knowledge, skills and competence.'

Rubber-stamping the life skills of medical transport staff

Medical emergency transport workers gain many skills and knowledge through on-the-job experience and practice. As these competences tend not to be officially recognised, CERTRANS developed and successfully tested a transnational system especially for their evaluation, recognition and validation.

CERTRANS transferred and adapted a system for recognising and validating chemical-sector competences, developed in the Leonardo da Vinci project Chemitech. The partners identified key trends in the emergency health transport sector – service coordination, team performance and patient transfer – and designed the sectoral standards for related competences.

The new system offers evaluation tools and a folder that documents a candidate's knowledge, skills and abilities in non-formal and informal learning. Candidates with recognised competences can be certified, while others may be encouraged to continue their professional progress and learning. This process benefits both employers and employees.

Safer roads, happier customers

Road safety and service quality are essential goals for anyone behind the wheel of a commercial vehicle. Under LLL-Drive, dozens of taxi and bus drivers in Turkey and Sardinia followed a special training programme to upgrade their skills and knowledge.

Inspiration for this project came from the relatively high number of traffic accidents in the two target countries, plus a general lack of training and training materials for this service sector. The four partner countries polled almost 900 people – drivers of commercial vehicles and members of the public who use them. The results highlighted concerns in areas such as alcohol consumption, seatbelt use and driver distractions.

Building on the results of an earlier project 'Instructor for Driving', the partners developed an e-learning programme focused on road safety and communication skills. The multimedia programme, which included recommendations on driver behaviour, was in line with European standards in the transportation sector.

PROJECT

CERTRANS – Certification System in the Health Transport Sector, Spain

PARTNERS

Bulgaria, Spain, Italy, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=5524

PROJECT

LLL-Drive – Life-Long Learning for Drivers to Improve Road Safety and Service Quality by E-Learning and Practical Training, Turkey

PARTNERS

Italy, Greece, Slovakia, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=4889



ACCOMMODATION AND FOOD SERVICES

PROJECT

ACAD – Accommodation and Catering Accessibility for Disability, Poland

PARTNERS

Poland, Portugal,
United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=5649

Removing disability barriers in hotels and restaurants

Accessibility problems in Poland's hotels and restaurants prompted disability experts from three nations to target help at staff and management. The resulting package features a new framework training programme, a comprehensive manual and short training film.

The starting point for the Accommodation and Catering Accessibility for Disability (ACAD) project was research by the Foundation Institute for Regional Development (FIRR). It highlighted barriers facing people with various disabilities when they access Poland's accommodation and catering services. For example, just 2% of the hotels surveyed employ people using sign language and none offered information printed in Braille.

Staff needs

'Better vocational education and training is the way forward,' says Anna Rozborska, project coordinator. 'Armed with the right skills and knowledge, this sector's employees can offer the same quality services to clients with disabilities as to other clients. They can also become more competitive in the European labour market.'

ACAD had four partners: FIRR, Poland's Foundation for Cooperation Fund, the UK's Action for Blind People, and Portugal's National Association for Family Action. In their research and study trips looking at hotels and restaurants, the goal was to find practical solutions for people with disabilities. Areas assessed included overcoming accessibility/environment problems, assistance, communication, and emergency procedures. 'Because disability needs can vary greatly, staff should always ask people if they require help or what kind of help they need,' adds Ms. Rozborska.

Universal programme

The partners developed a one-day training programme for hotel/catering service staff, after pilot tests in Krakow and Warsaw. Initially designed for Poland's needs in this sector, its modules can be tailored for use in other European countries. ACAD also produced a staff training manual and a training film that covers 12 different scenarios, such as a wheelchair user in a restaurant.

Several Polish tourism and hotel schools now call on the ACAD programme, which also attracted interest from several international hotel chains. The Portuguese and UK partners have adopted some project training modules, the manual or skills assessment tool. Further afield, results were shared in Poland with Euro 2012 football organisers and a tourist guides organisation. A spinoff Leonardo project, TEAD, looks at other aspects of the tourist sector for people with disabilities.



New training model targets tourism

Tourism directly generates seven million jobs in Europe. To ensure the sector's employees are fully mobile and offer the right skills, a consortium developed a sustainable new model. It allows for the mutual recognition and accreditation of vocational training and learning outcomes in both tourism and catering.

Consortium partners included tourism schools, vocational training centres, colleges, universities, hotels, holiday and cruise ship companies, spas and other relevant associations. Following a Europe-wide survey, they created a 'competence grid' to describe their industry's key competences and learning outcomes.

A further result was the development and testing of an ECVET (European Credit system for Vocational Education and Training) model for Europe's tourism and catering sector. The project also came up with guidelines on how to work with ECVET: these will help the industry's companies and service providers, which often lack experience with credit transfer systems.

Recreation Assistant: tomorrow's multi-skilled manager

Tourists today often seek special packages and quality service. If a newly developed formal qualification for the industry's staff becomes popular, they could soon find themselves being assisted by 'Recreation Assistants'.

Many long-term employees in the tourist sector lack formal qualifications. So 'TourBo meets Europe' partners turned to the Leonardo project 'Resto-Cooking-Permit', transferring the methods and tools of the 'International Cooking Certificate' – which certified the skills of kitchen staff for the first time.

To test and certify tourism employees' competences and skills, with a focus on learning outcomes, project partners developed the Recreation Assistant (RCA). This training includes short courses on tourism, psychology, geography, marketing and project management. Those who complete it will be better qualified for their job and more employable abroad. The project also mapped current tourism training to the European Qualifications Framework levels.

PROJECT

ECVET network for Tourism and Catering, Austria

PARTNERS

Austria, Germany, Finland, Romania, Slovenia, Spain, Turkey, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=3972

PROJECT

TourBo meets Europe – Europe-wide recognition and certification of learning results in tourism including systematic performance points against the background of ECVET and EQF, Germany

PARTNERS

Austria, Germany, Hungary, Slovenia

www.adam-europe.eu/adam/project/view.htm?prj=6905



INFORMATION AND COMMUNICATION

PROJECT

How to Webcast – New media use in the efficient learning processes, Poland

PARTNERS

Czech Republic, Lithuania, Poland, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=3946



Harnessing new media for better e-learning

Streaming media are a powerful tool for delivering information and learning. Focused on webcasts, a European project developed a comprehensive new training methodology. This was successfully adopted by a number of municipalities, to save time and money in their own training and communications.

A webcast, or webinar, is a fairly new concept. Typically lasting 45 to 60 minutes, it involves the live or on-demand broadcasting of audio or video over the Internet from a single content source to multiple listeners/viewers. The concept is popular with universities for online courses and with enterprises for sales and marketing or press conferences.

Webcast methodology

'How To Webcast sprang from our awareness that Europe was unfamiliar with the techniques of running one,' says Krzysztof Zieliński, R&D Director at the Management Observatory Foundation (FOZ) in Warsaw, Poland. 'So our project prepared, tested and promoted a coherent methodology for online education via webcasting.'

Consortium partners came from Poland, Czech Republic, Lithuania and Scotland. Its target audience was trainers, educators, teachers and employees of educational bodies.

Partners prepared the Webcast Training Method (WTM), calling on their own experience, plus available materials and studies on new media use for educational purposes and distance learning for adults. The WTM, including its content, was then tested during 10 internal pilots followed by 20 webcast seminars with educational bodies. After adjustment of the WTM, partners engaged in broad dissemination of their trainer's manual and methodology.

Best practice tips

'Our practical manual and more in-depth methodology help trainers with webcast training's organisational side and the efficient use of related tools,' says Mr Zieliński. 'We also created online videos on webcasting best practice. These cover everything from preparing a session to social etiquette, plus ensuring that all participants feel engaged and can interact with others.'

The partners have widely adopted the WTM in their own training courses. Beyond the project, through conferences and a media campaign, they also raised awareness of webcasts as an efficient and cost-effective way of conducting education or sharing information. Several public bodies and business support agencies in the Czech Republic and Poland have now adopted webcasts as supportive tools.

The project manual was also promoted at the UK's National Health Service (NHS) Annual Conference in 2010.

Training tomorrow's green IT specialists

Massive investment in green technologies could help Europe to create thousands of high-value jobs, while reducing greenhouse gas emissions by 30% by 2020. GRIN-CH tackles the shortage of skilled professionals in the green IT sector by establishing comparable skills sets and training guidelines.

Project partners from nine countries are analysing the market needs and current vocational training in green IT. Their goal is to define a professional standard in the participating European countries, so as to boost employment of green IT professionals and enhance their mobility across Europe.

To make qualifications and profiles more transparent, the project is mapping the identified skills and competences to the European e-Competence Framework (e-CF) and the European Qualifications Framework (EQF). Partners are also drawing up guidelines for green IT training institutions and employers, matching the principles of the European Credit system for Vocational Education and Training (ECVET).

Lone parents lifted by confidence and practical skills

Single-parent families are among the most vulnerable to poverty and exclusion in Europe. One solution is to combine return-to-work training with confidence-building exercises, as developed and tested under project Restart.

Most lone parents want to work, but often face low self-esteem, lack of affordable childcare, a fear of losing benefits, and the need to update skills and gain work experience. Restart built on 'Pathways to Work for Lone Parents', an innovative course accredited by the Open College Network Northern Ireland. The course includes group work, individual life coaching, and a work placement to enhance participants' self-esteem and employability.

The course was transferred to four partner countries – Cyprus, Italy, Poland and Norway – following research on the situation of lone parents there. Restart materials were translated, adapted and delivered to groups of lone-parent trainees in each country. Participants gained valuable skills and confidence, often leading to jobs.

PROJECT

GRIN-CH – Green IT Node, Switzerland

PARTNERS

Belgium, France, Germany, Italy, Sweden, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=9054

PROJECT

Restart: Return to work training and support for lone parents, United Kingdom

PARTNERS

Cyprus, Belgium, Italy, Norway, Poland, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=6702



FINANCIAL AND INSURANCE

PROJECT

TEACC – Training and Educators Academy for Contact Centres, United Kingdom

PARTNERS

Bulgaria, Germany, Lithuania, UK

www.adam-europe.eu/adam/project/view.htm?prj=4587

Raising service quality in contact centres

Contact centres are a vital tool for many organisations, yet struggle to attract or retain staff. Under project TEACC, four academies across Europe were launched to professionalise this growing sector's trainers and coaches. Its course comes with a handy resource guide, distributed to over 2 000 contact centre personnel.

'Customer experience is key for contact centres,' says Alison Hitchen, project manager of Training and Educators Academy for Contact Centres (TEACC). 'Automated services handle people's basic enquiries, leaving contact centres to deal with the complex queries by phone, email, chat and social media. So their frontline agents now need much higher skillsets.'

To develop the skills required by today's contact centres, the University of Central Lancashire piloted a new training course for staff trainers and coaches. It aims to create a positive working environment, where agents maximise their potential. TEACC revisited and expanded the course, in order to share the best practice with European partners.

Study trips

Representatives of training bodies in Bulgaria, Germany and Lithuania visited the UK to learn about the trainer and coach courses. Both were later adapted by these partners, including translation of course material, for use in their own contact centres.

All four partner countries launched academies, delivering two four-day training courses to some 200 trainers and coaches. Their task is to raise the skills of the next generation of contact centre workers – many of whom will be graduates. Each trainer is expected to train up to 200 people a year. Ms Hitchen believes the course will also reduce the sector's turnover problem: 'With training and competence improvements, frontline staff will be more engaged and better able to resolve queries.'

University qualification

Coaching is not a familiar concept in Bulgaria and Lithuania, so this project generated a sea change in culture within their contact centres. Kaunas University has also embedded TEACC into a management course. Moreover, the project provided a recognised qualification for the UK and Germany. The UK's four-day course leads to a university-validated certificate, something unique in this sector. A condensed one-day version has run annually since the project's end, training over 100 trainers and coaches.

Available in electronic and hard copies, the TEACC resource guide has also been picked up by institutions beyond the project.



Recognition of learning outcomes in financial training

Europe's banking, insurance and financial sectors (BIF) employ six million people. Thanks to a new methodology that applies ECVET points to their existing qualifications, these employees have a record of their competences that can also be recognised in other industries.

The European Credit system for Vocational Education and Training (ECVET) is a Europe-wide tool for transparency and recognition of vocational qualifications, but not well known in the world of finance. So the BIF project facilitated the international transfer, accumulation and recognition of individual learning outcomes

that result from continuing professional development – the main kind of training found in this industry.

The partners raised awareness of ECVET and built a path towards its gradual adoption by the BIF sectors. The main result was the development and testing of JADE, a methodology featuring four coefficients (job relevance, articulation, European Qualifications Framework level, difficulty) for use when attributing ECVET points to units of learning outcomes.

EBC*L: best practice for entrepreneurship

The European Business Competence Licence (EBC*L) is an internationally recognised certification system for the dissemination of business competence, covering theory and practice. The system and its quality standards have now been successfully transferred to the Czech Republic, Romania and Slovakia.

In this project, a consortium of four partners set up the EBC*L system in the target countries, including the accreditation of several exam centres and training for their representatives. Related documents, text books, exams and a 'train the trainer' concept were also translated and adapted to their local and national conditions.

Each country built a website covering this system as well as vocational education in business administration.

Introduction of the EBC*L system in the target countries resulted in better quality and innovation in their vocational training systems. It also broadened business education knowledge and competence among people in the labour market, students and graduates.

PROJECT

BIF – Banking & Insurance & Financial Network – Promoting Recognition of Learning Outcomes through ECVET System, Luxembourg

PARTNERS

Italy, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovenia, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=5498

PROJECT

The Way to Business Competent Europe: EBC*L – International recognition of qualification as a mean of increasing interest in vocational education, Czech Republic

PARTNERS

Austria, Germany, Romania, Slovakia

www.adam-europe.eu/adam/project/view.htm?prj=7020



WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION

PROJECT
WACOM – WAter COmpetences
Model Transfer, Germany

PARTNERS
Germany, Greece, Hungary,
Romania

[www.adam-europe.eu/adam/
project/view.htm?prj=5287](http://www.adam-europe.eu/adam/project/view.htm?prj=5287)



Water industry taps into flexible new competence model

Europe's water sector today has its first-ever competence and qualifications reference model. The WACOM model defines what every manager in the water sector, including wastewater treatment plants, needs to acquire in vocational education and training (VET). It is in use at several water agencies and will become an international standard.

The water sector faces mounting pressure to be cost-effective and sustainable, as well as to comply with key EU legislation such as the Water Framework Directive. All of these requirements translate into a growing demand for better water-management VET.

In WACOM, seven partners with expertise in this sector developed the Water Competence Model (WCM). It was based on the European Qualifications Framework (EQF) and the German Reference Model for Competence Modelling (PAS 103).

Extensive testing

WCM was tested in multiple pilot applications at various wastewater treatment plants in the four partner countries. The results were harnessed to adapt the model, for possible transfer to other areas of the water sector or other fields.

The water industry is different across Europe, due to varying levels of public and private management, staffing levels and so on. 'Our model takes all these into account, by setting a structure for the definition of competences, skills and knowledge and using the right level for VET,' says project manager Christian M. Stracke, from the University of Duisburg-Essen in Germany.

Mr Stracke notes that a typical German plant needs just a handful of highly trained staff, a balance of generalists and specialists. In other countries, especially Eastern Europe, plants may require between 100 and 1 000 task-focused staff. 'Our WCM defines all the needed competences and qualifications for each task, working place and groups of employees in the water sector,' he adds.

Model attracts wide interest

Project results were widely disseminated through conferences and publications. The WCM is now being used by the European Water Association and the national water associations of Germany, Greece, Hungary and Romania. Their Bulgarian equivalent, which was not a project member, has also expressed interest.

The model has been successfully transferred to Europe's agricultural and e-government sectors. It is also being integrated into the international (ISO) competence standard ISO/IEC 20006 and into InLOC (Information Model for Learning Outcomes and Competences), which is fully compatible with the EQF.

Putting preventive maintenance first

Public water utilities traditionally operate their networks until they break down. On the premise that this situation could be avoided by preventive maintenance, PM4WAT developed multi-lingual courseware to train the staff and engineers responsible for the maintenance of urban water networks.

Although more costly at the outset, preventive maintenance of water distribution or wastewater networks can avoid unreliable service and customer dissatisfaction. It also prevents significant loss of water and revenue due to leakage or pipe rupture.

Partners in the project combined their national experiences and modern practices in this sector. With a focus on preventive maintenance of urban water distribution networks, they developed an innovative web-based platform and courseware for vocational education and training. A notable result was the training simulator, which allows users to determine the best and most cost-effective rehabilitation procedures for water networks under different scenarios.

New skills for new generation of solid waste managers

As waste treatment facilities become more complex, the need for more skilled and better trained facilities managers grows. SWFM-QF addressed this by developing a dedicated European qualification and training framework, so as to facilitate trans-national mobility and improve labour quality in the waste management sector.

One of the project's main aims was to raise the skills of solid waste facilities' managers, to match technology advances and complex legislation in their sector. The partner's national surveys on vocational education in this sector led to the development of a competence framework for professional profiles.

This framework is aligned with the European Qualifications Framework (levels 4 to 6) and the European Credit system for Vocational Education and Training (ECVET).

Further results included development of an EU network of experts, a communication and knowledge exchange platform, and a training toolkit to implement a new course on solid waste facilities' management.

PROJECT

PM4WAT – Preventive Maintenance for Water Utility Networks, Greece

PARTNERS

Cyprus, Greece, Italy, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=5494

PROJECT

SWFM-QF – Towards a European qualification for Solid Waste Facilities' Managers, Greece

PARTNERS

Bulgaria, Germany, Greece, Hungary, Italy, Lithuania, Poland, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=10049



PROFESSIONAL, SCIENTIFIC AND TECHNICAL ACTIVITIES

PROJECT
COMPENER – Competences
for Sustainable Energy, Italy

PARTNERS
Italy, Romania, Spain

[www.adam-europe.eu/adam/
project/view.htm?prj=8059](http://www.adam-europe.eu/adam/project/view.htm?prj=8059)



Common standards rolled out for renewables installers

Demand for energy sector professionals is soaring, as Europe shifts to greater use of renewable energy sources and more energy-efficient buildings. To ensure these professionals are fully trained and eligible to work in all EU Member States, COMPENER partners developed and shared expertise in qualification and certification.

The project's main target was professional installers of building-integrated biomass stoves and boilers, shallow geothermal energy systems, heat pumps, photovoltaics and solar thermal systems. The main points of reference were provisions in two EU Directives: the promotion of the use of energy from renewable sources (2009/28/EC) and the energy performance of buildings (2010/31/EC).

An earlier project, QualiCert, developed a European set of common 'key success criteria' for such schemes. These are mutually recognisable and encourage energy professionals' mobility.

EQF reference

'COMPENER built on its predecessor's criteria, whilst also addressing two important gaps revealed by QualiCert,' says project coordinator Anna Moreno, head of training and information at ENEA (Italy's National agency for new technologies, energy and sustainable economic development). 'The gaps were Europe's lack of centralised education and training information for the different renewable energy sectors; and the absence of a reference in these sectors to the European Qualifications Framework or EQF.'

Calling on Italian expertise, the partners developed certification or equivalent qualification schemes. These professional skills in the energy sector were referenced to the EQF. ENEA'S e-learning content for energy training, developed under former EU projects, was also transferred to the Spanish and Romanian partners.

Energy managers too

In addition, COMPENER transferred a training methodology for qualification of energy managers, compatible with the EQF. To improve training for energy sector trainers, the partners also developed an energy skills document in their own languages and English. Available on the project website alongside dozens of other training manuals and videos, it promotes regular refresher courses and third-party certification that matches an ISO standard for professional training.

Project results have been taken up by BUILD UP Skills, the European initiative for energy efficiency in buildings, as well as by the Romanian partner in a summer training workshop. They have also been widely promoted in Italy, notably at energy schools in the Rome and Tuscany regions.

Raising the quality of workplace training

International work placements increase companies' competitiveness and enhance trainees' vocational, linguistic and intercultural competences. Handy manuals were developed in i2i to improve the quality of such training, to address the lack of skilled young workers in technical professions within European industry.

The targets were coordinators from the sending organisation (college/company), workplace supervisors, and trainees (students or apprentices). Partners came up with three manuals to secure the whole process of work placement – from preparation

to implementation and follow-up of stays abroad. The manuals support schools, companies, exchange organisations, as well as participants.

The manual for coordinators offers guidance on organising the placement, detailing the procedure step by step, while the manual for supervisors gives him/her the tools for mentoring the trainee. The manual for trainees contains useful documents such as model contracts, checklists, addresses, and so on.

Learning outcomes, a basis for educational comparison

Comparing the qualifications of students from different schools is made easier with the VQTS model. This was recently extended to other sectors (electronics/engineering), as well as other countries and languages.

The VQTS model was developed under an earlier Leonardo da Vinci project to provide transparent descriptions of qualifications and enable international comparison. Its Competence Matrix/Profiles offer a structured description of work-related competences and their acquisition, including credit points.

In VQTS II, six partner countries developed and transferred the Competence Matrix. Its guidelines, checklists and manuals can be used by VET (vocational education and training) providers in different vocational fields and/or by bodies responsible for qualifications and curricula. The VQTS model was also used to make VET and practice-oriented higher education more compatible, for example by shortening study programmes at Vienna's University of Applied Sciences, the so-called 'Technikum'.

PROJECT

i2i – Internship to industry, Sweden

PARTNERS

Austria, Belgium, Spain

www.adam-europe.eu/adam/project/view.htm?prj=4323

PROJECT

VQTS II – Vocational Qualification Transfer System II, Austria

PARTNERS

Austria, Czech Republic, Germany, Netherlands, Malta, Slovenia

www.adam-europe.eu/adam/project/view.htm?prj=3415



ADMINISTRATION AND SUPPORT SERVICES

PROJECT

MEET – Management E-Learning Experience for Training secondary school's students, Italy

PARTNERS

Estonia, France, Italy, Netherlands, Poland, Portugal, Romania, Slovenia

www.adam-europe.eu/adam/project/view.htm?prj=7413



Acquiring business skills via virtual enterprises

Learning by doing is a great way to pick up new skills. With the MEET Business Game, 3 000 young students across Europe experienced the ups and downs of running a business of their own. Developed for universities, this simulation software has been adapted for use in secondary schools and other vocational training bodies.

The game was first designed for Italian students training to become managers. Through simulation and role-playing, its users learn how to manage a small business. Their virtual company provides practical experience of what may or may not work in the real world.

At the request of training institutions in Italy's Veneto Region, the game was adapted for use by teachers and 16 to 19-year-old students, notably at European Qualifications Framework levels 4 to 5. Under project MEET, led by the technical vocational institute I.I.S. L. Luzzatti, 13 partners from eight countries sought to transfer the game to vocational schools across Europe.

Risk-taking

'The Business Game introduces vocational students to the basics of business management,' says Professor Barbara Bertin, project coordinator. 'One important learning outcome comes from problem-solving: the game's students must be able to explain why they took certain risks.' Teachers are also instructed in the game, so that their students are well prepared beforehand.

Under MEET, adaptation of the game's content and software led to a more flexible and attractive training tool for young people. Its developers ensured it complied with European vocational training and quality needs. Partners translated the game from Italian into Portuguese, Dutch, French and English. Prototype assessment resulted in a final version of the game, further tested in English by the project's Eastern European partners.

Competitions

'MEET created a European network of schools using the new version of the Business Game. We plan to use it in a national-level schools competition, which may evolve into an international one,' says Mrs Bertin. She adds that the game is a good match with Content and Language-Integrated Learning (CLIL). Under this concept, students learn subjects through a foreign language; hence its growing popularity in European schools.

Project results were broadly disseminated, including via the website, conferences, plus printed material such as a handbook and English-language final publication. A follow-up project, MEET2, aims to move the game away from the classroom and onto 'apps' for devices such as tablets and smartphones.

Reinvigorating Baltic SMEs

A dual study programme honed in Germany was transferred successfully to eight EU-Baltic countries and Norway. Combining a skilled trades training with a technical or business management bachelor's degree, it addresses the region's shortage of junior entrepreneurs and managers. A new Baltic Sea Academy ensures the concept's sustainability.

Dual bachelor's degree programmes were developed by the Hamburg University of Cooperative Education and the University 21 (Buxtehude). In this Leonardo project, the three/four-year courses – in business economics, construction engineering, architecture,

facility management, and physiotherapy – were rolled out to 32 chambers of commerce (Hanseatic Parliament members) and a dozen universities and training centres.

Partner students get a work placement in a Baltic SME and a regionally recognised certificate of competences, boosting their mobility and careers. Receiving companies enjoy the fruits of international cooperation with talented undergraduates.

Putting HR at the core of business development

Small businesses are Europe's economic motor, but rarely prioritise personnel development. Many could therefore benefit from project T-TrainSME's innovative tools to assess their training needs and roll out vocational training programmes.

Under the guidance of Gazi University in Ankara, Turkey, partners from five countries aimed to improve vocational training in small and micro-enterprises – especially firms with no more than 10 employees. They adapted, modified and updated several needs assessment tools and guidelines developed in the 2004 Leonardo project TrainSME, so as to transfer them to a wider target group.

All the tools – including an electronic toolkit to profile the knowledge and competence needs of organisations and individuals – were successfully tested and evaluated by the project partners plus 10 other partners in Turkey, Slovakia, Italy and Latvia. The tools as well as the guidelines serve as a useful platform for enhancing the skills of managers and employees.

PROJECT

Dual vocational training for SMEs in the Baltic Sea Region, Germany

PARTNERS

Estonia, Finland, Germany, Latvia, Lithuania, Poland

www.adam-europe.eu/adam/project/view.htm?prj=3729

PROJECT

T-TrainSME – Transfer of innovative vocational training approaches in Small and Micro Enterprises, Turkey

PARTNERS

Austria, Italy, Latvia, Slovakia, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=7297



PUBLIC ADMINISTRATION AND DEFENCE; COMPULSORY SOCIAL SECURITY

PROJECT

NQF Inclusive – Accreditation and Certification of basic vocational education for disadvantaged people via NQF, Austria

PARTNERS

Austria, Belgium, Malta, Slovenia, Sweden

www.adam-europe.eu/adam/project/view.htm?prj=5228



Developing a more inclusive NQF

Disadvantaged people often receive no official certificate after completing basic vocational training. Calling on the European Qualifications Framework (EQF) and on the National Qualifications Framework (NQF), a European project has developed a model for accreditation and certification of these courses. This will enhance job prospects for certificate-holders, while ensuring equal opportunities for all.

NQF Inclusive brought together partners from five countries, including EASPD, an umbrella body of European service providers for people with disabilities. It was piloted by Chance B, an Austrian association helping old or ill people and those with disabilities.

NQF, a useful platform

The project's first reference point was Happy Farm. This earlier project developed a basic training programme – plus certification – in farming for people disadvantaged in the labour market. Secondly, many European countries have been developing their own NQF in line with the EQF. This makes it easier to standardise non-formal training and to offer recognised certificates – including for training at lower levels than in most EU apprenticeships.

The partners studied Malta's NQF at a vocational college and certification agency, as well as knowhow in educational institutes in Austria, Slovenia and Nordic countries. Each partner was then tasked with developing and testing VET at levels 1 and 2 for young people with disabilities.

The project delivered a catalogue of standards, which shows how to describe learning outcomes for training programmes in line with NQF levels 1 and 2. It also includes procedures for validation of non-formal training at lower NQF levels. A second handbook, in an easy-to-read format, shows the learning outcomes at NQF levels 1 and 2 for three professions: Austrian confectioners, Danish cooks, and Maltese health and social care givers.

New qualification method

'When an NQF is implemented, it can help all people – not just those with disabilities,' says project coordinator Franz Wolfmayr, from Chance B. 'We showed that people no longer have to learn a trade at a special school, as NQFs open the way for recognition of non-formal and informal learning. This can promote a new way of getting qualified, as is happening already in Ireland.'

Several national and European projects took up the project's results, such as in farming (animal care) and bicycle workshops. As experts on EQF levels 1-3, the partners were invited to speak at conferences in Belgium, Hungary and Germany.

Smoothing European competence standardisation

Competence modelling is an emerging solution to the challenge of describing and recognising people's competences and their online representation. In eCOTOOLS, partners developed a new competence model and adaptable Europass CS (Certificate Supplement) eco-tools, so as to increase European mobility and the transparency of vocational education and training (VET) systems.

Partners developed the eCOTOOL Competence Model, as a framework for the standardised description of competences, skills and knowledge. It integrates several European tools and policies –

among them the Europass, the European Qualifications Framework (EQF), the European Credit system for Vocational Education and Training (ECVET), and the European Key Competences.

The project's Europass CS eco-tools, comprising an application profile and technical tools, can be applied by any organisation that creates vocational certificates. National Europass Centres especially can benefit from this simplified process of creating such certificates.

Innovation competence broker: bridging firms and R&D

Major innovation is often the fruit of universities and enterprises getting together. To enhance such cooperation, REBASING developed a comprehensive work programme. This included transfer to three countries of a tried-and-tested expert profile, the 'research-based competence broker'.

The consortium assessed Norwegian experience and success with research-based competence brokers. Experts like these analyse the needs of enterprises in terms of technological and organisational innovation and they link needs to the capacity of universities (and research centres) to generate innovative solutions.

The broker profile was adapted to local conditions to ensure its transferability. It was then transferred to Estonia, Italy and Germany, where it was tested with key professionals, calling on Open Innovation Networks.

Project partners also described this profile according to the European Credit system for Vocational Education and Training (ECVET) and the European Qualifications Framework (EQF).

PROJECT

eCOTOOL – eCOmpetences TOOLS, Germany,

PARTNERS

Czech Republic, Germany, Greece, Italy, Slovenia, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=5622

PROJECT

REBASING – Research-based Competence Brokering, Italy

PARTNERS

Estonia, Germany, Italy, Norway

www.adam-europe.eu/adam/project/view.htm?prj=7264



HUMAN HEALTH AND SOCIAL WORK

PROJECT
EGDMS – European Guide Dogs
Mobility Standards,
United Kingdom

PARTNERS
Belgium, Bulgaria, Poland,
Romania, Slovenia

[www.adam-europe.eu/adam/
project/view.htm?prj=7052](http://www.adam-europe.eu/adam/project/view.htm?prj=7052)



A European benchmark for training guide dog instructors

Guide dogs are a boon for the visually impaired, improving owners' mobility and wellbeing and boosting their chances of being economically active. A new training programme for these animals' instructors will ensure the provision of many thousands more of these valuable dogs across Europe. A formal European standard of instructor training is also in the pipeline.

'The UK has around 5 000 guide dogs, helping visually impaired people move around safely indoors and outdoors,' says Jenny Crawford, project manager of European Guide Dogs Mobility Standards (EGDMS). 'But they are less familiar elsewhere. Romania, a country with a population of 22 million, only had one working guide dog when we started. Today a handful work there, with more to come.'

Funding the schools where the dogs learn their craft is a challenge. The UK does this through an independent charity. 'Other countries may rely on their cost-conscious government or health associations, which can reduce training standards. So the dogs are less well-behaved or more like guard dogs,' adds Mrs Crawford. Other issues include fragmented delivery of training and poor retention of guide dog instructors.

Sharing a success

The EGDMS project brought together guide dog schools in Belgium, Bulgaria, Poland, Romania and Slovenia. Its main achievement was to develop the UK's successful training programme for guide dog instructors, so that a range of tools and aids could be transferred and adapted for use in each partner country.

The schools identified three modules that could be used as part of a ten-module course, in line with European systems for qualification and credit accumulation. They also tested training methodologies already developed by the other UK project partner, the University of Lincoln. Most popular was the 'virtual dog' tool, helping users to understand canine anatomy so that the real working dogs stay healthy.

Hands-on training

Partner schools sent staff to the UK to see how guide dogs are trained there. 'When dealing with animals, you can't beat face-to-face training. It also resulted in a network of guide dog schools that will share experience long after the project's completion,' says Mrs Crawford.

A further key outcome was the development of a CEN (European Committee for Standardization) Workshop Agreement. It is anticipated that this will developed to become a European standard for all guide dog instructors.

The project also raised awareness up to government level of the importance of first-class guide dog training.

Diversity management, a jobs solution for people with disabilities

People with disabilities make up some 16% of the EU27 working-age population, yet face many barriers finding or holding a job. Solutions from the Pathways to Work (PTW) project include diversity management and raising employers' awareness of everyone's competences and skills.

Across the EU, only 50 % of people with disabilities are in employment, compared to 68 % for non-disabled people. The project partners noted that the employment of people with special needs is a widely overlooked theme in their countries, concluding that a major obstacle is employers' lack of information.

The project developed a recruiting model that helps both the employer and the employee with disabilities to find the right person for the right job. This model includes identifying an individual's needs, learning periods, support on the job, and follow-up. Other useful products were a training model on diversity management, for employers and disability jobs trainers, and an internal audit model for use Europe-wide.

Extending the concept of disability Sports Assistants

For people with disabilities, sport can bring a better quality of life and social integration. A training manual successfully developed for 'sports assistants' – people who offer support in the disability sports field – has now been transferred for use in three new countries.

In the project Sports for Disabled – Enable to Participate, partners translated the 'Training for Sports Assistants for the Disabled' manual developed under a predecessor Leonardo project. Their aim was to make the manual's contents and methodologies more widely known, specifically through transfer to Bulgaria, Finland and Turkey.

The 168-page manual's five modules cover the concept of disability through to planning sports activities. After translation into the target countries' languages, specific training and pilot sessions were organised to help participants adopt and even adapt the manual for their national contexts. Parts of the manual were adopted by university sports faculties in Portugal and Turkey.

PROJECT

PTW – Pathways to work, Finland

PARTNERS

Estonia, Finland, Hungary, Romania, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=6082

PROJECT

Sports for Disabled – Enable to Participate, Portugal

PARTNERS

Bulgaria Finland, Portugal, Spain, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=4017



ARTS, ENTERTAINMENT AND RECREATION

PROJECT

Vocational training system in archaeological heritage based upon e-learning resources, Poland

PARTNERS

Germany, Latvia, Netherlands, Poland, Spain, Sweden, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=7403



Interactive e-learning comes to aid of archaeologists

Europe boasts a rich archaeological heritage of everything from megaliths to maritime wrecks. To improve its protection and management, a series of two European projects developed the huge new E-Archaeology Content Repository. This enables almost any teacher, in schools or universities, to assemble a sector-specific IT training programme.

Under the first project, 'E-learning as a tool of knowledge transfer in the field of the protection and management of archaeological heritage', partners from six countries developed the 'Archaeological Heritage in Contemporary Europe' programme. This features innovative e-learning content, such as 15 multimedia courses covering the sector's most significant aspects. The project also came up with a new standardised methodology of vocational learning in this field.

Pilot training of the new programme revealed several gaps, like the need for more flexibility and coverage of sustainable archaeology. So the same partners, plus a Spanish institution, put together another project, 'Vocational training system in archaeological heritage based upon e-learning resources'.

Content Repository

'We built a unique 40-GB Content Repository, with high-quality didactic content available in English, Spanish, Latvian, Polish and German,' says Arkadiusz Marciniak, project coordinator, based at the Adam Mickiewicz University in Poznań, Poland. 'It stores some 10 000 archaeological elements, or Learning Objects. It's also flexible enough to allow a wide range of curricula, modules or units to be created for different target groups – be they sector professionals or students at school through to university level.'

The content of the repository is perfect for web-based training programmes and may be used to supplement traditional courses or synchronised distance learning, such as video conferencing. Content was also expanded under the second project, especially for urban and maritime archaeology.

Broad adoption

The partners gave Europe-wide seminars on how to use the new repository. Related courses were run by the Dutch, Latvian and Spanish partners, beyond the scope of both projects.

Books published after both projects, such as 'E-learning archaeology: Theory and practice' and 'E-learning archaeology: The heritage handbook', have attracted international readers, notably in the United States. Professor Marciniak says the partners learned a lot about the sociology of content delivery and believes that the repository's flexibility is ideal for training in other domains.

Sound solutions for visually impaired audio professionals

Visually impaired people were locked out of audio editing, when software replaced physical equipment. Under ProGuide2, a series of smart innovations were developed and transferred so that sound engineers, musicians and producers can work as efficiently as sighted colleagues.

Earlier Leonardo project ProGuide helped to make on-screen software accessible to the visually impaired. Under ProGuide 2, its follow-up, partners further developed their general and adapted solutions – including Braille (tactile writing) and screen readers to work with SADIE audio editing and mixing software.

Several hundred visually impaired users in nine countries already use the solutions developed by the ProGuide team. Among them are sound engineers and musicians working for Swedish Radio and Radio France, plus producers of audio magazines/books in Sweden, Finland, Germany, Austria, Italy, Norway and the USA. Significant trade interest in these solutions should promote their wider use.

Stage skills prepare vulnerable citizens for modern society

Young people failed by traditional education may end up on society's fringes. The Writing Theatre project offered them a second chance, with a training model based on creative experimentation and learning-by-doing outside of the classroom.

The project was inspired by the EU's goal of reducing the share of early school-leavers to less than 10% Europe-wide by 2020. Low levels of education are a serious brake on individuals, society and economies – hence the importance of improving training at national level, as well as recognising competences and knowledge gained in formal and informal learning contexts.

Writing Theatre revolved around the techniques of writing and acting in 'social theatre'. It targeted teachers and educators working with people at risk of social exclusion, especially those who leave school early. Guided by 60 professionals, some 160 young people from Italy, Greece and Romania took part in transnational workshops to improve their self-confidence and instill key skills.

PROJECT

ProGuide2 – Further United Development of Key Professions for Visually Impaired Persons, Sweden

PARTNERS

Belgium, Finland, Germany, Sweden, United Kingdom

www.adam-europe.eu/adam/project/view.htm?prj=4228

PROJECT

Writing Theatre, Italy

PARTNERS

Greece, Italy, Romania

www.adam-europe.eu/adam/project/view.htm?prj=6852



OTHER SERVICE ACTIVITIES

PROJECT
 COU.R.I.E.L – COUrier Routing through Innovative Emulation Learning program, Greece

PARTNERS
 Greece, Hungary, Romania

www.adam-europe.eu/adam/project/view.htm?prj=7095



Smarter routing support for courier companies

A new integrated learning programme teaches dispatchers to cope with even the most complex planning and operations. Combining theory and practice, it helps courier firms to achieve greater efficiency, better customer service and compliance with European environmental laws.

COU.R.I.E.L comprised Greek, Hungarian and Romanian partners from the courier/postal services sector, including Hellenic Post S.A.'s Training and Vocational Centre (KEK-ELTA S.A.) as a coordinator, with transportation expertise from the University of the Aegean. Panagiotis Panagos, Director of KEK-ELTA S.A., said the project's goal was to create a modern, innovative and flexible training programme for key postal/courier services employees.

The project called on an earlier EU project's software that tackled routing issues for courier services. According to George Drougkas, a Hellenic Post expert in courier services, the Madrel project developed new algorithms to address 'dynamic' situations – unforeseen events such as traffic jams or ad-hoc customer requests.

Knowledge gaps

A COU.R.I.E.L survey of postal/courier employees revealed that many are unaware of the importance of integrating optimal routing and distribution operations into the total supply chain, recalls Dr Charis Marentakis, executive from Hellenic Post's Business Operations. Many also lack knowledge of the IT or modern technologies so essential for today's courier services.

The project therefore developed a specific training programme and material, notably the Innovative Interactive Emulation Learning Software (IIELS). This operates in a game fashion, teaching users about best routing and scheduling practices.

Successfully tested and highly rated by dispatchers and fleet coordinators from all partners, the three-day training programme is in English and was translated into Greek, Hungarian and Romanian.

Lower costs

'Our project motivated all partners to give more thought to vehicle routing,' says Dr Vassilis Zeimpekis, Adjunct Lecturer of the University of the Aegean. 'By adopting our solution, they have increased customer service levels and minimised operational costs. Better vehicle routing also means fewer kilometres travelled, thus reducing their carbon footprint in line with new EU rules.'

COU.R.I.E.L results now feature in a routing module for master's degree students at the University of the Aegean. Thanks to conference presentations, the project's programme has also attracted serious interest from European courier and logistics industry players.

Empowering tomorrow's female entrepreneurs

Women entrepreneurs are under-represented in most European countries. To build women's confidence and self-belief that they can start up in business, fe:male transferred innovative training methodologies developed in the United Kingdom (UK) to three partner countries.

The project's target group included vocational education and training providers, women's support organisations, and women entrepreneurs. A special focus was on women facing additional barriers – such as being over 50, from an ethnic minority background, or a lone parent.

The UK's award-winning Mentoring Circles concept was transferred to and piloted by partners in the Netherlands, Malta and Cyprus. The circles allow small groups of women to learn from experienced women entrepreneurs and to assess their own skills and value. Practical new online training content and tools were also developed, such as an online marketplace, areas for social networking/learning, and Europe-wide case studies of successful female entrepreneurs.

International standard for Europe's company trainers

In-company trainers get overlooked in comparison to counterparts in public training bodies. 'TrainerGuide', a web-based tool distilling European best practice for this target group, raises their profile and supports them through academic development.

The project built on the successful results of a Danish project, which developed the original guide on skills and knowledge for in-company trainers in 2006. Its modules covered areas such as recruitment and employment of a firm's apprentices/trainees, the role and training of trainers, and safety and the working environment.

Project partners from Denmark, Finland, Germany, the Netherlands, Slovenia and Turkey looked at their own best practices for training in-company trainers. Their results were added to the Danish guide, then tested at national and international level. This led to the final product, TrainerGuide, a digital handbook and toolbox ensuring the highest competencies and qualifications for in-company trainers.

PROJECT

fe:male – Female Entrepreneurs: Mentoring and Lifelong Learning across Europe, United Kingdom

PARTNERS

Cyprus, Italy, Malta, Netherlands

www.adam-europe.eu/adam/project/view.htm?prj=6726

PROJECT

TrainerGuide – a web-tool for in-company trainers, Denmark

PARTNERS

Denmark, Finland, Germany, Netherlands, Slovenia, Turkey

www.adam-europe.eu/adam/project/view.htm?prj=3706



Useful Links

The European Union's programme for education, training, youth and sport 2014-2020:

http://ec.europa.eu/education/erasmus-for-all/index_en.htm

European cooperation in vocational education and training:

http://ec.europa.eu/education/lifelong-learning-policy/vet_en.htm

European Union's Leonardo da Vinci Programme:

http://ec.europa.eu/education/lifelong-learning-programme/ldv_en.htm

European cooperation in education and training:

http://ec.europa.eu/education/index_en.htm

CEDEFOP (European Centre for the Development of Vocational Training):

<http://www.cedefop.europa.eu>

EURYPEDIA (European Encyclopedia on National Education Systems):

<https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/>

European Commission

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