

## EUROPEAN PROJECTS AS A TOOL FOR IMPROVING FARMERS SKILLS VIA MODERN INFORMATION TECHNOLOGIES

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### Abstract

*This article presents European projects with the main focus on the improving the skills and competitiveness of farmers by modern information and communication technologies and e-learning methods. Two projects – AVARES - Enhance attractiveness of renewable energy training by virtual reality and NewCAP - New European Standards in the Context of Reformed EU Common Agricultural Policy are projects under the Leonardo da Vinci Transfer of Innovation grant scheme. They try to present new way of vocational education and training in the agrosector. The main aim of the AVARES project is to develop the multimedia learning materials for vocational education and training in the field of agricultural and rural development and application of modern information and communication technologies into vocational education and training. The emphasis is put on the application of modern ICT equipment and technologies, with the main focus on the Virtual reality, 3D visual display and e-learning 2.0 methods. New programming period 2014 – 2020 will bring significant changes within the Common Agricultural Policy (CAP) which will have a serious impact on economy especially of larger beneficiaries. The „NewCAP“ project aiming at preparation of actors in rural areas to take the proposed changes in the policy through interactive educational programme.*

**Key words:** e-learning, common European policy, competitiveness of farmers, renewable energy sources, vocational education and training

### INTRODUCTION

Vocational education and training aims to develop knowledge, skills, jobs' habits and other competences of students. The final effect of a graduation is the qualification, which enables them to engage in the working process as a skilled workforce or continue their studies.

For the successful entry of graduates into the labour market adequate education and training are necessary.

According to the Bruges Communiqué[1] it is essential to adapt the content of vocational training in favor of changing needs of labor market. Integration of needs of the changing labor market into the content of the vocational education and training requires better understanding of skills of new created sectors and related changes within more and more integrated Europe.

The main aim of the vocational education and training is to contribute continuously to the employment and economic growth as well as to react on more extended social challenges. By the quality and excellence of vocational education and training in EU communities is essential to ensure the sustainability of employment and economic development. In the knowledge-based society there are vocational skills and competencies as important as the academic ones. At the present EU there are preferred thematic fields focused on sustainable development. In more details we can speak about topics related to the energetic sustainability linked directly to the use of renewable energy resources and the Common Agricultural Policy. The paper focuses on two international projects in the frame of the Leonardo da Vinci - Transfer of Innovation programme with their main aims to enhance the quality and attractiveness of



presentations, to display films, to hold face-to-face learning process as well as discussion rounds with experts or host various events such as courses, workshops, seminars.

As a last part of the Virtual learning environment 3D Virtual RES Park has been developed. It has been set up as the Island with several buildings and areas. On the windy table-land students can visit Wind turbine, on the roof of Research and development Centre students can see solar collectors and PV cells and inside are prototypes of RES devices - turbines or heat pumps.

Thanks to the new learning methods and professional content of the learning materials, the AVARES project will allow to vocational education and training participants obtain practical knowledge and skills from area of renewable energy resources and their effective using.

Participants of the learning process, through theoretical knowledge obtained in the multimedia learning materials and virtual reality of the 3D RES Park, should acquire knowledge and skills for preparation and competently review the application of the RES, to assess the suitability of the type of renewable energy for specific natural, climatic and geographical conditions.

They can analyse the energy consumption of buildings or premises and will be able to design and implement energy efficient solution with regard to available resources.

New methods of learning give possibilities for application the principles of the non-barrier learning as well.

### **Project NewCAP**

To avoid obstacles and to meet requirements determined within the new Common Agricultural Policy, Slovak University of Agriculture in Nitra together with partner universities decided to apply for the NewCAP project – “New European Standards in the Context of Reformed EU Common Agricultural Policy“. From this point of view, the main aim of the NewCAP project is to create an interactive educational programme for rural actors (farmers, agricultural advisors, rural people and especially rural youth

seeking their job) which will provide them complex information in the field of the new reformed Common Agricultural Policy. This project is transferring an innovation from the previous NEW AGRI pilot project which was focusing on creation of printed training handbook in a field of Common Agricultural Policy and cross – compliance (project No. 2005-I/05/B/F/PP-14137 New Agri: New European Ways in Agriculture).

Project is being realized from September 2012 together with three project partners - Agroinštitút Nitra, štátny podnik, Slovakia, Confederazione Italiana Agricoltori Toscana, Italy and University of Agribusiness and Rural Development, Bulgaria.



Fig.2. NewCAP project web site  
(<http://www.newcap-project.eu>)

Project web page was created within the project initial phase (<http://www.newcap-project.eu>). It provides complex information on project aims and objectives, consortium and planned outputs. All this basic information is available in English and partner languages, as well. An access to e – learning modules will be provided in the future from the web page. For this purpose – and as the main project output, too – an interactive training programme for farmers and farm advisors will be created and situated in the e – learning platform. The training programme will consist of online learning modules focused on new Common Agricultural Policy and modified cross – compliance – “a mechanism that links direct payments to compliance by farmers with basic standards concerning the environment, food safety, animal and plant health and animal welfare, as well as the requirement of maintaining land in good agricultural and environmental condition“. The NewCAP project will help to

farmers mainly in new EU member states to be prepared for the new programming period (2014-2020) and to meet the Statutory Management Requirements and Good Agricultural and Environmental Conditions within the system of cross – compliance by providing them online training system in the field.

From this point of view, the results of the project are defined as follows:

- developing of webpage on CAP, cross-compliance, direct payments, etc.,
- creation of LMS and Virtual learning environment,
- creation of online training modules focused generally on the new CAP and specifically on new CAP components concerning direct payments for farms and cross – compliance,
- distribution of newsletters and other dissemination tools related to CAP to famers and other stakeholders.

## CONCLUSIONS

In recent years there are thematic fields closely connected to the extension of the labour market and sustainable development focusing on the renewable energy sources and the agricultural policy support. Projects AVARES and NewCAP realized at Slovak University of Agriculture in Nitra supported by Leonardo da Vinci programme, Transfer of Innovation bring the present situation in the field to both young graduates and experienced farmers by using the modern ICT, virtual reality, electronics education methods as well as social networks.

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