



**AGRIVOC**

Reshaping of Agricultural Vocational Studies  
in the Western Balkans

# EVALUATION REPORT

of external evaluation process of the project  
"Reshaping of Agricultural Vocational Studies  
in the Western Balkans"  
(2012-2015)

**Authors:**

Federico Sicurella  
(University in Lancaster, UK)

Tijana Moraća  
(Sapienza University Rome, Italy)

Iva Kljakić  
(Agroinvest Foundation Serbia, Belgrade)

**Executive publisher:**

Agricultural College of Vocational Studies Sabac  
Vojvode Radomira Putnika 56 Sabac  
vpssa@ptt.rs  
www.vpssa.edu.rs

**Co-publishers:**

Western Balkans Institute (WEBIN)  
Tadeusa Koscucka 64 Belgrade  
office@wb-institute.org  
www.wb-institute.org

College of Agriculture and Food Technology  
Prokuplje  
Cirila i Metodija 1 Prokuplje  
vpps@beotel.rs  
www.vpps.edu.rs

**ISBN**

978-86-81063-25-5

**Design:**

de:work studio

**Text completed in November 2015.**

Electronic edition

**For citing this publication, please follow this format:**

Authors, title, place, executive publisher, year.

This report and suggested data represent the views of the authors and not necessarily the views of project partners, TEMPUS programme or the European Commission.

# TABLE OF CONTENTS

<b>Executive summary</b>	<b>5</b>
<b>1. Introduction</b>	<b>7</b>
<b>2. The AGRIVOC project: overview</b>	<b>8</b>
2.1 Relevance and rationale	8
2.2 Objectives, partnership and project implementation	9
<b>3. Evaluation: focus, methodology and key findings</b>	<b>11</b>
3.1 Focus and methodology	11
3.2 Key findings	12
3.2.1 Relevance	12
3.2.2 Efficiency	15
3.2.3 Effectiveness	17
3.2.4 Impact	23
3.2.5 Sustainability and replicability	24
3.2.6 Best practices and lessons learned	26
<b>4. Conclusions and recommendations</b>	<b>28</b>
<b>Annex 1 - List of interviewees</b>	<b>30</b>
<b>Annex 2 - Questionnaire</b>	<b>32</b>



# EXECUTIVE SUMMARY

---

## The AGRIVOC project

---

The AGRIVOC project has been developed as an attempt to reshape and improve vocational education and training in the domains of agriculture and food technology in Serbia and Bosnia-Herzegovina, with the aim to make it more responsive to the changing needs and demands of the local and regional agri-food labor market. It was implemented from 15/10/2012 until 14/10/2014, for a total duration of 36 months.

---

## Relevance

---

The AGRIVOC project is highly relevant to the specific situation of higher education in the fields of agriculture and food technology in Serbia and Bosnia-Herzegovina, since its aims and purposes are fully consistent with the needs and requirements of the agri-food sector (as ascertained in official EU documents).

---

## Efficiency

---

Aktivnosti u okviru AGRIVOC projekta su, bez obzira na izvesne prepreke i nedostatke, sprovedene na prilično efikasan način. Glavne prepreke, što se tiče efikasnosti, bile su jezička barijera (pošto mnogi članovi tima iz Srbije i Bosne i Hercegovine ne govore tečno engleski jezik) i nedostatak iskustva u upravljanju međunarodnim razvojnim projektima kao što je sam AGRIVOC. Bez obzira na to, članovi tima su bili veoma zadovoljni kvalitetom saradnje, naročito na neformalnom nivou i na kraju su se različitosti profila i stavova pokazale i kao prednost, a ne samo kao izazov.

---

## Effectiveness

---

Broadly speaking, the activities realised under the AGRIVOC project have significantly contributed to the achievement of the project's Specific objectives, although with slightly different degrees of effectiveness. With regard to the first and the third Specific objectives, which relate to curriculum reform and the development of vocational training and professional practice, the achieved results are highly satisfactory. Particularly noteworthy are the capacity of the project management to follow up on the recommendation given by the Tempus office and adjust/improve the project activities accordingly (as exemplified by the drafting and publication of the Handbook) and the fact that the study visit to the Educational Training Centre in Hódmezővásárhely was evaluated as extremely useful by the team members who attended it. With regard to the second Specific objective, i.e. the enhancement of the entrepreneurial competence of students and their employability, the planned results were only partially achieved, due to issues concerning the partnership with the partner institution from Slovakia. Lastly, with regard to the fourth Specific objective, i.e. enhancing cooperation between the educational system and local agriculture and food production communities, the planned activities were quite effective in achieving the desired outcome.

---

## Impact

---

Although it is still too early to provide a detailed assessment of the impact of the reformed curricula and teaching methodologies onto the educational and professional communities targeted by the AGRIVOC project, there is

a widespread perception among the team members that the project will shape the social and professional context in which it was implemented in very positive ways. In this regard, it can be concluded that the project will likely make a significant contribution to improving the quality of agriculture and food technology studies in Serbia and Bosnia-Herzegovina.

## Sustainability and replicability

The benefits and changes introduced through the AGRIVOC project are very likely to be maintained and continued in the future, thanks to the establishment of common frameworks for future collaboration (see the Agreement above) and to the intense transfer of knowledge and competences ensured during the project. Furthermore, the project appears to have laid solid foundations for future interventions in the areas of agriculture and food-technology, both from an educational and a professional/business perspective. Cooperation with non-governmental organizations (specifically with WEBIN) is seen as an additional factor enhancing sustainability and replicability.

## Best practices and lessons learned

- 1** The challenges that arise from the heterogeneity of the project partnership can be overcome through sustained teamwork.
- 2** The creation and cultivation of friendly relationships among the team members is an important asset for the effective implementation of the project.
- 3** The language barriers existing among team members should be addressed at an early stage of the project implementation.
- 4** Creating opportunities for the exchange of experience and knowledge between institutions of different status located in different contexts is of utmost importance.
- 5** It is essential that the new knowledge and skills generated by and through the project are made available to the broader local and professional audiences.

**6** Transparency in the procedures, mutual cooperation and ad hoc training are therefore key to an efficient and effective implementation of the project.

**7** It is important to formalize existing relations of partnership through mutual agreements, in order to create a common framework for further cooperation.

## Final recommendations

- 1** Project management: (a) a less centralized management structure would be desirable; (b) clearer 'milestones' for the project should be set out; (c) a greater role should be foreseen for 'external' partner institutions.
- 2** Connections with the local and national context: (a) there should be greater involvement of the local and national authorities.
- 3** Project partnership, coordination and communication: (a) language barriers should be timely addressed; (b) the website could be fruitfully used as an online platform for discussion.
- 4** Project implementation and specific activities: (a) more opportunities for student mobility and exchange should be created; (b) students should be more involved in certain components of the project, and their feedback should be taken into greater account; (c) Financial support should be ensured for further improving the existing laboratories and training centers.

# 1 INTRODUCTION

This report is result of external evaluation process of the results achieved by the AGRIVOC project and its wider impact on the situation of agricultural vocational studies in Serbia and Bosnia-Herzegovina. It has been conducted by the team hired by the Agricultural College of Vocational Studies Sabac and consisting of Ms. Iva Kljakic as principal evaluator (Agroinvest Foundation Serbia), Mr. Federico Sicurella (University in Lancaster) and Ms. Tijana Moraca (Sapienza University Rome).

In order to do so, the Evaluation will take a close look as the following dimensions:

- I) **the relevance** of the project;
- II) ) **the efficiency** of the project partnership and of the implemented actions;
- III) **the effectiveness** of the planned actions and interventions in achieving the desired outcomes and results;
- IV) **the impact** of the project onto the targeted communities and the broader context;
- V) **the sustainability and replicability** of the achieved results;
- VI) **the lessons learned and best practices** stemming from the project.

On the basis of these findings, some specific recommendations and general conclusions will be drawn, which are also intended as guidelines for future development interventions in the same or similar areas.

The Evaluation report includes three chapters apart from this Introduction (Ch. 1). Chapter 2 provides an overview of the AGRIVOC project, its relevance and rationale, as well as its partnership, objectives and implementation process. Chapter 3 introduces the scope and methodology of the evaluation process, and presents its key findings. Lastly, Chapter 4 advances some specific recommendations and suggestions, particularly in terms of project management, coordination, implementation, and connection with the context, and subsequently draws some general conclusions about the significance of the AGRIVOC project for the advancement of agricultural vocational education in the countries of the Western Balkans.



## 2 THE AGRIVOC PROJECT: OVERVIEW

This section of the Evaluation report provides an overview of the AGRIVOC project, its relevance and rationale (§ 2.1) and its partnership, objectives and implementation process (§ 2.2).

### 2.1 Relevance and rationale

The AGRIVOC project has been developed as an attempt to reshape and improve vocational education and training in the domains of agriculture and food technology in Serbia and Bosnia-Herzegovina, with the aim to make it more responsive to the changing needs and demands of the local and regional agri-food labour market. It was implemented from 15/10/2012 until 14/10/2014, for a total duration of 36 months.

As stated in the Detailed description of the project (section F), agriculture has a central place in the economies of Western Balkans countries, both in terms of GDP and employed workforce; however, the agricultural and food technology sectors currently face several constraints, including low productivity and mechanization levels, poor equipment, obsolete seeding, cultivation and food processing practices, and lack of state support in terms of credits, training and information. This is partly due to the low capacity of higher education institutions (HEIs) to provide vocational education and training (VET) that is adequate to the specific needs of the agri-food labour market, and thus create a virtuous connection between education and the business world. The main problems affecting HEIs specialised in VET in the Western Balkans are related to outdated curricula, obsolete teaching methods, inadequate learning environments and the lack of state-of-the-art technical

equipment and labs. As a result, agricultural and food technology studies are unable to ensure sufficient employability and career opportunities, so that student interest in these areas of education has generally been declining. In spite of these shortcomings, EU-led higher education reform (particularly within the Bologna process) in these countries has largely neglected vocational studies, focusing on academic studies instead.

The AGRIVOC project has sought to address the above-mentioned situation by improving the synergy between the higher education system and the agriculture and food production sectors in Serbia and Bosnia-Herzegovina, specifically through reforming and upgrading vocational study programs and curricula in a number of relevant disciplines, both at the professional bachelor and master levels. Broadly speaking, the project has aimed to provide students in the areas of agricultural and food technology studies with more opportunities to gain the skills required by the agri-food industry and labour market, through ensuring adequate learning conditions, enhancing public-private partnerships, and promoting entrepreneurship through competence-based and outcome-oriented vocational education and training. It should also be noted that the action undertaken by the AGRIVOC project is in line with Serbia's and Bosnia-Herzegovina's national strategies for sustainable development, EU integration tendencies (see § 4.2 in this regard), as well as other sector-specific strategic documents. In particular, it contributes to several common European education and training objectives/benchmarks, such as developing skills for a knowledge-based society, training of teachers and trainers, making learning more interactive, strengthening

the links with working life and society at large, improving quality assurance in education and training, increasing recruitment to technical studies, as well as improving foreign language learning.

## **2.2 Objectives, partnership and project implementation**

The Wider Objective of the AGRIVOC project was to improve and upgrade vocational study programs in agriculture-related and food technology disciplines as well as food technology at professional bachelor and master levels in Serbia and Bosnia-Herzegovina. In order to contribute to this overall objective, the project had four Specific objectives, targeting 8 HEIs in these two countries (see below).

The Specific objectives were:

- 1.** Reform and improvement of the curricula, study programs and teaching methodology of five agriculture-related disciplines (i.e. general agriculture, animal husbandry, viticulture and viniculture, farming, crop protection) and food technology;
- 2.** Enhancement of the entrepreneurial competence of students and their employability;
- 3.** Development of the methodology of vocational training programs through the establishment of training centres;
- 4.** Strengthening the self-sustainability of students vocational training programs through enhancing cooperation with local agriculture and food production communities.

The eight beneficiary HEIs are:

- 1.** College of Agriculture and Food Technology (Prokuplje, Serbia)
- 2.** High Technical School of Professional Studies (Požarevac, Serbia)
- 3.** High Agricultural School of Vocational Studies (Šabac, Serbia)
- 4.** College of Applied Vocational Studies (Vranje, Serbia)
- 5.** Faculty of Biofarming of Megatrend University (Bačka Topola, Serbia)
- 6.** Faculty of Agriculture of University of East Sarajevo (Bosnia-Herzegovina)
- 7.** Faculty of Agriculture of the University of Banja Luka (Bosnia-Herzegovina)
- 8.** Agro-Mediterranean Faculty of the Džemal Bijedić University (Mostar, Bosnia-Herzegovina).

The AGRIVOC project was based on an international partnership consisting of 16 organisations. Apart from the 8 HEIs mentioned above, it also included:

- 1.** Institute for Animal Husbandry (Zemun, Serbia),
- 2.** Western Balkans Socio-Economic Center (Belgrade, Serbia),
- 3.** Institute for Forage Crops (Kruševac, Serbia),
- 4.** Agricultural Institute of the Republic of Srpska (Banja Luka, Bosnia-Herzegovina),
- 5.** Center for the Development and Advancement of Rural Regions (Banja Luka, Bosnia-Herzegovina),
- 6.** Agricultural University of Athens (Greece),
- 7.** University of Agriculture of Nitra (Slovakia), and
- 8.** Faculty of Agriculture of University of Szeged (Hungary).

The roles and responsibilities of each organisation in the implementation of the project were determined through 8 work packages (WPs). The aim of WP1 was to reform the curricula of the above-mentioned study programs by introducing practical training. This included a benchmark survey for setting the targets and a peer-review process, to be conducted under the guidance of the partner institution from Greece. WP2 was aimed to improve existing teaching methodologies, particularly through the creation of a methodology handbook, under the guidance of the partner institution from Slovakia. WP3 dealt with the establishment of training centres, the installation of laboratories and the purchase of technical equipment, and was implemented

under the guidance of the partner institution from Hungary. WP4 involved the completion of curricula reform and their final accreditation at the relevant HEIs. WP5 dealt with the promotion of the project results, through the creation of a website, the dissemination of promotional materials, and other activities. WP6 aimed to ensure the sustainability of the achieved results, particularly in administrative and financial terms, through the adoption and accreditation of the reformed curricula and the specialised laboratories. WP7 was aimed at quality assurance through monitoring mechanisms and regular evaluations, while WP8 was focused on project management and coordination.



### 3 3. EVALUATION: FOCUS, METHODOLOGY AND KEY FINDINGS

This section introduces the scope and methodology of the evaluation process, and presents its key findings.

#### 3.1 Focus and methodology

The purpose of the evaluation process is to assess the overall quality and impact of the AGRIVOC project as a development action, focusing in particular on the following six dimensions:

**1 The relevance** of the project, that is, its consistency with the needs and requirements of the beneficiaries, the specific situation of the countries involved, the policies and priorities of both partner institutions and project donors, as well as existing regional and global trends in the relevant fields.

**2 The efficiency** of the project, that is, the extent to which the foreseen activities were successfully implemented, focusing in particular on the quality of the partnership, the readiness of the team members to pursue the foreseen goals, and the main obstacles they faced in fulfilling their functions within the project.

**3 The effectiveness** of the project, that is, the extent to which the Specific Objectives of the project (see above) were achieved. Effectiveness is a qualitative measure of immediate and observable change brought about by the project in the target group (of beneficiaries) as a direct result of the project activities, both in terms of outputs (i.e. tangible deliverables) and outcomes (i.e. intangible deliverables).

**4 The impact** of the project, which concerns the broad and long-term effects produced by the development intervention, whether positive and negative, whether in a direct or indirect manner, and whether intended or unintended. More generally, the impact of a project corresponds to the change that the intervention made in the social and human context in which the project was implemented. It is directly related to the pursuit of the project's Wider Objective (see above).

**5 The sustainability** and replicability of the project, that is, the likelihood that the benefits and changes introduced as a result of the project will be continued in the future, after the project has been completed. A key aspect in this regard is the transfer of knowledge among the actors involved, i.e the capacity to create, organise and distribute the knowledge gained throughout the project and ensure its availability for the relevant communities as well as for future beneficiaries.

**6 Best practices** and lessons learned through the project, which may be relevant for future projects with a similar structure, scope and/or objectives.

The evaluation of the AGRIVOC project on the basis of these specific dimensions has been conducted through a methodology that combines desk research and fieldwork. In terms of desk research, the evaluation has relied on detailed examination of the written documentation produced by the partner institutions (jointly or individually). This includes: the original Project proposal, the Detailed description of the project, the Logical Framework Matrix, the Workplan and Budget, the Intermediate Report on the

implementation study programs and practical training elaborated and submitted by each beneficiary institutions, as well as other relevant documents such as seminar and workshop reports, conference agendas and presentations, study visit reports and so forth. It should be pointed out that comprehensive and detailed project documentation is available up to the issue of the Intermediate Report on the implementation of the project, which covers the period until 31 March 2014. From that date onwards, no systematic data have been produced (yet). For this reason, the present Evaluation relies mainly on systematized information up to the Intermediate report, while for the following period it relies on partial information gathered from the available project documentation. Most of the relevant documentation is accessible on the project website ([www.agrivoc.org](http://www.agrivoc.org)). Additional documents and reports (which are not accessible online) were obtained directly from the Project coordinator.

In terms of fieldwork, the evaluation has involved a series of semi-structured interviews<sup>1</sup> with selected representatives of the partner institutions, which have been conducted on the basis of a common questionnaire tailored to each respondent on the basis of his or her specific functions and responsibilities within the project<sup>2</sup>. Interviews were conducted for the most part during the final conference of the project, which took place in Prokuplje (Serbia) on 9 October 2015. Additional interviews were conducted through Skype meetings or by telephone in the weeks following the aforementioned event. The average duration of each interview was approximately 30 minutes; the transcripts of each interview was submitted to detailed analysis and compared to data and information gathered from written project documentation.

## 3.2 Key findings

This section presents the key findings of the evaluation, grouped under the six dimensions explained above.

### 3.2.1 Relevance

As stated above (§ 2.1), the AGRIVOC project was designed with the aim to tackle some of the main constraints and shortcomings affecting vocational education and training in the field of agriculture and food production in Serbia and Bosnia-Herzegovina, particularly through improving students' practical skills and employability, thus enhancing the synergy between the educational system and the agri-food industry in general. More specifically, the Detailed description of the project (section F) presents the approach elaborated and implemented in the project as being responsive to the concrete needs of the agri-food educational and business sectors in the two beneficiary countries, i.e. Serbia and Bosnia-Herzegovina, and also as being consistent with the main European common policies in the field of training and education (specifically the Bologna process).

A clear indication of the relevance of the AGRIVOC project is that the issues and challenges that the project has been designed to address have been highlighted in the European Commission Progress Reports for both Serbia and Bosnia-Herzegovina over the past three years (2013, 2014 and 2015)<sup>3</sup>. In the case of Serbia, all three Progress Reports emphasize that the country's educational system continues to educate workforce that does not necessarily correspond to the needs of the economy. In particular, the Progress Report from 2015 states that "[t]he efficiency of the education system needs to be improved by rationalizing the school network and gearing vocational education more to labor market needs" (p. 29). This resonates with the

<sup>1</sup> Semi-structured interviews use open-ended questions in a flexible sequence which allows for interviewer discretion, and they leave room for additional questions to be asked to pursue particular topics of interest.

<sup>2</sup> A list of all interviewees and the personalized questionnaire that was administered to each of them are included in Annexes 1 and 2 below.

Strategy of Agriculture and Rural Development of the Republic of Serbia for the period 2014-2024<sup>4</sup>, which states that "[the] existing structure and knowledge transfer system [...] are not sufficiently effective and do not adequately address the needs of a more dynamic technical-technological restructuring of the agricultural sector" (p. 33).

In the case of Bosnia-Herzegovina, the Progress Reports also stress the inefficiency of the educational system to cater to the needs of the labor market. In particular, the Progress Report from 2013 indicates that "one of the major bottlenecks of the education system [is] the mismatch between the qualifications needed on the labor market and the profile of graduates coming out of the education and vocational training systems" (p. 27). This resonates, for instance, with the Strategy of Midterm development of agriculture in the Federation of Bosnia-Herzegovina for the period 2015-2019<sup>5</sup>, which stresses that "[the] network of public and private institutions and organisations, which is based on comprehensive life-long education [...] and which allows for an effective transfer of knowledge, technology and information, and provides the basis for innovation and modernization, has not yet been established in this sector" (p. 45).

In addition to this, the Progress Reports indicate the existence of significant challenges in the domains of agriculture, rural development, food safety and veterinary policy, in both Serbia and Bosnia-Herzegovina. As far as Serbia is concerned, from 2013 through 2015 there has been limited progress in all of above-mentioned domains. In particular, the Progress Report from 2013 states that "[a] reliable system of national reference laboratories needs to be set up to improve general food safety" (p. 29). The situation in Bosnia-Herzegovina is quite similar: the considered Progress Reports indicate that there has been little progress in the fields of agriculture and rural development, food safety,

veterinary, phytosanitary policy and fisheries. In addition to this, the relevance of the AGRIVOC project to the needs of the beneficiaries and its consistency with existing strategies and policies at the European level emerges strongly also from the interviews conducted with the Project coordinator and the representatives of the partner organisations, both from the Western Balkans and the EU. Indeed, there is widespread agreement among the respondents that the AGRIVOC project has addressed issues and problems that are widely perceived as being highly significant by the affected professional communities.

To begin with, members of the Project coordination and of the Steering committee pointed out **the urgency of reforming agriculture and food technology studies in Serbia and Bosnia-Herzegovina by shifting the focus from theory to practice**, thus justifying and substantiating the rationale of the AGRIVOC project (see § 2.1 above). Furthermore, the need to update teaching methodologies in accordance with the requirements of the Bologna process was also highlighted. On the one hand, the current teaching methods are regarded as obsolete and outmoded; on the other, the lack of sufficient practical and interactive training was stressed as a significant shortcoming within studies in the areas of agriculture and food technology, which are inherently based on applied knowledge and practical skills and thus require highly interactive teaching and learning environments.

In addition to this, several respondents confirmed the existence of a significant disconnection between vocational education and training in the fields of agriculture and food technologies and the agro-food industry, stating the importance of reforming curricula and teaching methodologies in order to bridge this gap. Moreover, there seems to exist a large gap between the educational system (particularly higher education) and the employment

<sup>3</sup> All European Commission Progress Reports are available at: <http://ec.europa.eu/enlargement/aspx?id=10098&langTag=bs-BA>

<sup>4</sup> Available at: <http://uap.gov.rs/wp-content/themes/uap/STRATEGIJA%202014-2020%20.pdf>

<sup>5</sup> Available at: <http://www.zeda.ba/wp-content/uploads/2013/12/Strategija-Poljoprivrede-BiH-na-Web.pdf>

service, in the sense that there is no adequate information or publicity concerning the need for managers or professional workers in the agri-food industry. It was also claimed that the current situation of the agri-food industry in Serbia and Bosnia-Herzegovina, in which big industrial complexes no longer exist, requires that educational institutions themselves provide students with opportunities to gain and improve their practical skills through practical training and work. These remarks resonate quite strongly with the general trends and challenges noted in the European Commission Progress Reports on Serbia and Bosnia-Herzegovina (see § 4 in this regard). In this light, the goal of the AGRIVOC project to enhance the entrepreneurial competence of students and their future employability through the establishment of several training centres appears to be highly relevant.

Furthermore, the relevance of the AGRIVOC project to the Serbian and Bosnian-Herzegovinian contexts was also acknowledged by the representatives of the partner institutions from EU countries. They were responsible for carrying out an initial assessment (benchmark survey) of the situation in the beneficiary countries, which revealed the existence of some problems and shortcomings in the curricula of the beneficiary educational institutions, particularly the short duration of the practical training. Moreover, it was noted that several of the institutions involved in the project did not have adequate facilities for practical training. Nevertheless, the respondents agreed that all of the representatives of these institutions showed high motivation and strong commitment to improving the current system.

## CONCLUSION:

The AGRIVOC project is highly relevant to the specific situation of higher education in the fields of agriculture and food technology in Serbia and Bosnia-Herzegovina, since its aims and purposes are fully consistent with the needs and requirements of the agri-food sector (as ascertained in official EU documents).



### **3.2.2 Efficiency**

In order to assess the efficiency of the project and the implemented activities, i.e. the extent to which they have been successfully implemented through an optimal use of the available resources, the present evaluation focuses on three main elements:

- (A) The quality of the partnership** established through the project, in terms of cooperation, coordination and communication;
- (B) The readiness of the people** involved to commit to the reform efforts foreseen by the project; and
- (C) The main obstacles** they faced in the implementation of the project activities.

When asked to evaluate the quality of the partnership established through the project, the interviewees unanimously agreed that both cooperation and communication among the partner institutions were excellent. In particular, most of the respondents stressed that cooperation and coordination were surprisingly efficient and smooth in spite of the heterogeneous and diverse character of the partnership, which included people with different professional backgrounds, educational institutions each with a specific status, position and tradition, as well as partners from both the Western Balkans and the EU. Most respondents regard such heterogeneity as having various pros and cons, although the advantages of working in a diverse environment, in which different people have different standpoints on the same matter, are generally perceived to override the cons, which relate to the difficulties and challenges of managing and accommodating existing differences. In addition to this, there is wide agreement among the interviewees that sustained teamwork led many of the team members to become well acquainted with one another and often to

establish friendly relationships based on mutual trust. In particular, study visits conducted at partner institutions were positively evaluated as valuable opportunities for exchanging knowledge and building connections. Indeed, the informal side of the partnership is seen by many as an added value to the project and an asset to continue to work jointly in the future.

With regard to the second aspect, i.e. the readiness to embark in reform efforts, many interviewees pointed out how some participants in the project were initially somewhat reluctant to take on new responsibilities and commit themselves to the AGRIVOC project. The reasons for such reluctance were mainly related to the widespread feeling that the project constituted a very big undertaking for individuals as well as for single institutions, both in financial and organisational terms. Indeed, the lack of familiarity with the very requirements of the broader process of reforming the educational system, the dynamics of project management and the complex EU administrative and bureaucratic procedures were largely perceived as severe challenges. An additional reason for the aforementioned reluctance to undertake far-reaching reform efforts is the conservative and traditionalist attitudes of some teachers and professors, who - at least initially - felt that the reform of curricula and teaching methodology in accordance with the Bologna process was somehow imposed on them. In any case, all interviewees agree that most of the initial doubts and uncertainties were quickly overcome or dispelled as the project began to be implemented.

The third aspect of efficiency which will be examined here is related to the main obstacles faced by the people involved in the project in the implementation of the project activities.

- a)** the language barrier
- b)** the complexity of the bureaucratic requirements

c) a certain lack of clarity regarding the implementation procedure and the overarching goals of the project.

Virtually all respondents agreed that the chief obstacle they faced during the implementation of the project was the language barrier, namely, the fact that not all of the participants were fluent in either English or Serbian-Bosnian-Croatian, so there was no single language that could be spoken and understood by all. More specifically, the partners coming from the EU countries often found themselves unable to fully participate in the project activities that were conducted in Serbian-Bosnian-Croatian, such as lectures, presentations and meetings. As one respondent points out, the language barrier also had a negative impact on people's own motivation to engage in the project activities, with obvious repercussions on the overall efficiency of the project. The language issue was addressed through the introduction of a translation service and also by launching English classes for teachers and professors. According to the interviewees, however, neither solution proved to be particularly effective.

The other two main obstacles identified in the interviews were the complex bureaucratic requirements of the project and the initial lack of clarity regarding procedures and goals. In regard to the former obstacle, some respondents stated that they found it difficult to understand and comply with all of the formal bureaucratic requirements of the project, especially in the initial stages of the project when they were not familiar with them. In regard to the latter obstacle, some interviewees stated that the first months of the implementation of the project were particularly challenging because not all of the participants had a clear idea of their role within the AGRIVOC project and/or of the project's specific objectives. One respondent describes this situation as "wandering" through the project, stating that it took several months

for the project to gain momentum and for the people to start feeling ownership of it. This may partly depend on the general lack of experience with managing European projects like AGRIVOC itself. In this regard, however, many team members feel that they have acquired significant experience in terms of project management, and that this will enable them to manage future projects in more efficient and productive ways. One respondent noticed how "we [the team members] were very much willing to make a contribution to our school and to the others, and now that we have gained some experience and knowledge, we will not have to start everything from scratch in case we begin another European project. We are now ready for new projects, and this means a lot to us."

## CONCLUSION

The activities of the AGRIVOC project were implemented in a quite efficient way, despite some obstacles and shortcomings. The main obstacles in terms of efficiency were the language barrier (as many team members from Serbia and Bosnia-Herzegovina are not fluent in English) and the lack of experience with managing international development projects like AGRIVOC. In spite of this, the team members were highly satisfied with the quality of the partnership, particularly at the informal level, and the heterogeneity of profiles and attitudes turned out to be an asset rather than only a challenge.

### **3.2.3 Effectiveness**

As stated above (§ 2.1), the effectiveness of the project corresponds to the extent to which its Specific Objectives (see § 2.2) were achieved, i.e. a qualitative assessment of the change brought about by the project in the targeted communities. This assessment will be based on data gathered from different sources, such as interviews with the team members, the 2014 Intermediate Report on the implementation of the project, as well as relevant documentation produced by the partner institutions (see § 3.1 for details).

The first Specific objective of the AGRIVOC project was: **I) reform and improvement of the curricula, study programs and teaching methodology of five agriculture-related disciplines (i.e. general agriculture, animal husbandry, viticulture and viniculture, farming, and crop protection)** and food technology. In the scope of this objective, various activities were devised and implemented. The main ones were:

**a** An initial benchmark survey aimed to identify similarities and differences between study programs (i.e. curricula) in the agri-food domain at 18 higher education institutions, both from the EU and the Western Balkans, the findings of which were used as input information in the process of curricula reform in Serbia and Bosnia-Herzegovina;

**b** A number of working groups were formed who were responsible both for curriculum reform and for the improvement of vocational training (one for each subject);

**c** Several curricula reform workshops were organised, in which reformed curricula and teaching methodologies were discussed and submitted to peer-review sessions;

**d** Study visits to partner institutions from the EU were organised with the aim to enable the partners from the Western Balkans to become acquainted with the latter's experience in curriculum reform.

As a result of these activities, **the eight beneficiary higher education institutions targeted by the AGRIVOC project were able to reform and improve the curricula of 17 study programs and 3 educational modules in total.** In most cases, the changes within each study program amounted to less than 20%, which means that the reformed study programs did not have to undergo the full process of re-accreditation in order to become executive (as stipulated by relevant regulations governing the Serbian and Bosnian-Herzegovinian higher education systems). In the specific cases of the Prokuplje College of Agriculture and Food Technology and the Šabac High Agricultural School of Vocational Studies, instead, the selected study programs underwent more substantial reform, and thus went through full re-accreditation. A summary of the achieved results is presented in Table 1 below:

**Table 1: Results of the AGRIVOC project in terms of curriculum reform**

Beneficiary institution	Reformed study programs/modules
College of Agriculture and Food Technology (Prokuplje, Serbia)	Food technology; Field and vegetable crops; Animal husbandry; Fruit growing and viticulture; Plant protection.
High Technical School of Professional Studies (Požarevac, Serbia)	Agriculture (agronomy and crop protection); Food technology.
High Agricultural School of Vocational Studies (Šabac, Serbia)	Animal husbandry; Plant protection, Field and vegetable crops; Fruit growing and viticulture.
College of Applied Vocational Studies (Vra- nje, Serbia)	Food technology
Faculty of Biofarming of Megatrend University (Bačka Topola, Serbia)	Biofarming.
Faculty of Agriculture of University of East Sarajevo (Bosnia-Herzegovina)	Agriculture (general module); Agriculture (plant production); Agriculture (animal production).
Faculty of Agriculture of the University of Banja Luka (Bosnia-Herzegovina)	Field and vegetable crops.
Agro-Mediterranean Faculty of the University Džemal Bijedić (Mostar, Bosnia-Herzegovina)	Field crops and general floriculture; Fruit growing and viticulture.

All of the reformed study programs and modules that underwent changes up to 20% became executive already in the academic/school year 2014/2015, while the study programs that underwent more substantial reform (in Prokuplje and Šabac) have or will become executive in the academic/school year 2015/2016.

In this respect, all of the team members from the beneficiary institutions who were inter-

viewed expressed satisfaction with the results achieved through the AGRIVOC project. Representatives of the EU partner institutions also expressed satisfaction with the way in which the process of curriculum reform was managed and implemented. Although they were not always able to get the full picture of the ongoing changes in all of the beneficiary institutions (since they were not equally acquainted with each of them), they all noticed great interest and

commitment to change on their part. Generally speaking, the EU partners felt that their own experience in curriculum reform was valued and acknowledged in the process of curriculum reform undertaken in the beneficiary institutions.

The second Specific objective of the project was: **II) enhancement of the entrepreneurial competence of students and their employability.** The main activities that were realised in the scope of this objective included:

**A.** A comprehensive assessment of the needs of the teaching staff regarding the improvement of entrepreneurial learning (through questionnaires administered both to teachers/professors and students);

**B.** Regional training sessions on entrepreneurial learning. This segment of the project was implemented through the establishment of a working group who was responsible for the improvement of teaching methodology and the development of entrepreneurial competence. The aim of the groups was to equip teachers with the best learning-outcome oriented methods of teaching and learning, with a specific emphasis on interactive and entrepreneurial learning and teachers' training.

The EU partner institution who led this working group was the University of Agriculture of Nitra (Slovakia). However, on the basis of the interviews conducted with members of the working group it appears that the EU partner was not able to perform its leading role in the expected manner. The reasons for this is that the University of Agriculture of Nitra chose to put junior staff in charge of this activity; moreover, the staff was frequently changed, so that no stable and productive relationship could be established with the other members of the working group. As a result of this, it appears that this segment of the

AGRIVOC project was developed and implemented in a less systematic and effective way as compared to the other project components. In other words, this Specific objective was achieved to a lesser extent than the other three.

The third Specific objective was: **III) development of the methodology of vocational training programs through the establishment of training centres.** The key activities realised in the scope of this objective included:

**a** A comprehensive assessment of the needs of the teaching staff concerning teaching methodology (through questionnaires administered both to teachers/professors and students);

**b** Regional seminars on teaching methodology, conceived as training sessions aimed at improving and strengthening the teaching methodology competences of the teaching staff coming from the partner institutions;

**c** Training development workshops, with the aim to assess the situation concerning practical training at the partner institutions, to elaborate individual plans for introducing or improving practical training in selected study programs, and to define the institutional frameworks for implementing the reform plans;

**d** Workshops devoted to the development and establishment of training and educational centres at the partner institutions.

The activities conducted in the scope of this component of the AGRIVOC project were particularly effective in achieving the desired results. All of the eight beneficiary institutions were able to reform selected study programs by introducing or increasing the amount of students' vocational training and professional practice, as detailed in Table 2 below:

**Table 2: Results of the AGRIVOC project in terms of reform of vocational training and professional practice**

Beneficiary institution	Study programs with reformed vocational training and professional practice
College of Agriculture and Food Technology (Prokuplje, Serbia)	Food technology; Field and vegetable crops; Animal husbandry; Fruit growing and viticulture; Plant protection.
High Technical School of Professional Studies (Požarevac, Serbia)	Agriculture; Food technology.
High Agricultural School of Vocational Studies (Šabac, Serbia)	Animal husbandry; Plant protection, Field and vegetable crops; Fruit growing and viticulture.
College of Applied Vocational Studies (Vranje, Serbia)	Food technology.
Faculty of Biofarming of Megatrend University (Bačka Topola, Serbia)	Biofarming.
Faculty of Agriculture of University of East Sarajevo (Bosnia-Herzegovina)	Agriculture (general module); Agriculture (plant production); Agriculture (animal production).
Faculty of Agriculture of the University of Banja Luka (Bosnia-Herzegovina)	Field and vegetable crops.
Agro-Mediterranean Faculty of the University Džemal Bijedić (Mostar, Bosnia-Herzegovina)	Field crops and general floriculture; Fruit growing and viticulture.

In its assessment of the Intermediate Report on the implementation of the project (submitted by the AGRIVOC project coordinator in April 2014), the project donor made the following recommendation: "*[I]n order to motivate academic staff to implement the new approaches and new teaching methodologies introduced under the project, it is recommended*

*to prepare a teaching methodology handbook including concrete examples.*" Acting upon this recommendation, a comprehensive Handbook on teaching methods in agricultural studies was drafted and published which focuses on the experience of higher education institutions from Serbia and Bosnia-Herzegovina, which constitutes an additional achievement of the

project. The Handbook is available both in English and Serbian (400 copies in total) and can be accessed online at [www.wb-institute.org/meta-content/uploads/FINAL\\_E-HANDBOOK-EN.pdf](http://www.wb-institute.org/meta-content/uploads/FINAL_E-HANDBOOK-EN.pdf).

As far as the establishment of training centres is concerned, the AGRIVOC project enabled most of the beneficiary institutions to purchase state-of-the-art technical equipment in order to establish new laboratories for practical work or to improve the existing ones. The project also required that the beneficiary institutions make the laboratories available to be used by students as educational centres. Furthermore, a new regional educational centre was established at the College of Agriculture and Food Technology in Prokuplje (and a similar one is expected to be launched in Šabac in the near future). This regional educational centre is meant to provide students (both from Prokuplje and from other higher educational institutions in the country) with practical training in all of the agriculture-related disciplines (apart from Animal husbandry, at least for the time being). An agreement has been signed by all partner institutions in order to grant students the opportunity to use the Prokuplje educational centre through mobility and exchange programmes.

The interviews conducted with some of the team members confirm that this Specific objective has largely been achieved. For one thing, most team members explicitly praised the opportunity, created through the AGRIVOC project, to improve the existing laboratories at the partner institutions by purchasing new technical equipment. In the words of one of the respondents, “we are particularly grateful for the new equipment that the AGRIVOC project allowed

*us to purchase, this is indeed a great step forward for our institution and for our students.”* Moreover, the team members who were involved in the drafting of the Handbook on teaching methods in agricultural studies (see above) regard it as an excellent way of gathering different approaches to teaching methodology into a single and unified publication, which can serve both as a valuable resource for the academic/school staff and as a springboard for future improvements and reform.

Among the various activities encompassed by this component of the AGRIVOC project, the team members consider the study visit to the Educational Training Centre in Hódmezővásárhely (Hungary) in December 2013 as particularly significant for the development and improvement of vocational training and professional practice in their own educational institutions. The purpose of this visit was to familiarize participants with the way practical training functions within study programmes in agriculture, i.e. how to use the laboratories, farms, and farming equipment. What emerges from the interviews is that the visitors were impressed with the high amount of teaching (in several agricultural and food technology disciplines) that is implemented “on the field”. As a result of the study visit, the team members were able to understand the importance and value of practical training in the context of agriculture-based vocational studies, and were further motivated to improve vocational training methodology at their home institutions.

The fourth Specific objective of the project was: **IV) strengthening the self-sustainability of students vocational training programs through enhancing cooperation with local agriculture and food production communities.**

The key activities encompassed by this segment of the project included:

- a** Establishing cooperation between the beneficiary institutions and the local communities, agricultural and food producers, as well as the business sector in general;
- b** Surveys among local producers and students about the implementation of students' practical training at the local production sites;
- c** Career fairs and business-education forums organised by the beneficiary institutions in which local producers were invited to promote their businesses and provide students with opportunities for practical training (and ferial training during the summer period);
- d** Signing of Memoranda of Understanding and Cooperation Agreements between the beneficiary institutions and selected local companies over students' practical training.

The importance of strengthening the connection between the educational and the business sector in the field of agriculture and food technology in Serbia and Bosnia-Herzegovina emerges quite clearly from the interviews conducted with the team members who were actively involved in this segment of the AGRIVOC project. In fact, they acknowledged the existence of a wide gap between the higher educational system and the (local and national) job market mainly due to the lack of opportunities of practical training for students, and stated that the AGRIVOC project has achieved much in this regard, enabling a growing number of students to be offered practical training in the fields of agriculture and food technology at local production sites. The respondents also pointed out that this has led their home institutions to establish stronger ties with local businesses. They also pointed out that a great commitment from the educational institutions (both in terms

of time and resources) is needed for such synergies to become effective. The most tangible achievement in this respect is the case of the strengthened collaboration between the College of Agriculture and Food Technology in Prokuplje and the cattle farm Lazar located in Blaca. On the whole, there is widespread agreement that the AGRIVOC project has significantly improved the situation in this sphere.

## CONCLUSION

Broadly speaking, the activities realised under the AGRIVOC project have significantly contributed to the achievement of the project's Specific objectives, although with slightly different degrees of effectiveness. With regard to the first and the third Specific objectives, which relate to curriculum reform and the development of vocational training and professional practice, the achieved results are highly satisfactory. Particularly noteworthy are the capacity of the project management to follow up on the recommendation given by the Tempus office and adjust/improve the project activities accordingly (as exemplified by the drafting and publication of the Handbook) and the fact that the study visit to the Educational Training Centre in Hódmezővásárhely was evaluated as extremely useful by the team members who attended it. With regard to the second Specific objective, i.e. the enhancement of the entrepreneurial competence of students and their employability, the planned results were only partially achieved, due to issues concerning the partnership with the partner institution from Slovakia. Lastly, with regard to the fourth Specific objective, i.e. enhancing cooperation between the educational system and local agriculture and food production communities, the planned activities were quite effective in achieving the desired outcome.

### **3.2.4 Impact**

As explained above (see § 3.1), assessing the impact of a project means evaluating the broad and long-term effects produced by the development intervention in the social and human context in which the project was implemented. As far as the AGRIVOC project is concerned, assessing its broad and long-term impact requires considering the following aspects: a) the extent to which the project outcomes have contributed to the achievement of the project's Wider objective (i.e. to improve and upgrade vocational study programs in agriculture-related and food technology disciplines as well as food technology at professional bachelor and master levels in Serbia and Bosnia-Herzegovina); b) the extent to which the project results and outcomes have been disseminated both to the beneficiary communities (in the educational, professional and business spheres) and to the wider public.

With regard to the Wider objective, the effectiveness of the AGRIVOC project in achieving the planned results (see § 3.2.3 above) is already a salient indication of the capacity of the project to bring about change in the targeted social and professional communities. Indeed, virtually all of the team members with whom interviews were conducted agree that the project "made a difference", stating that the reform of curricula and teaching methodologies made a significant contribution to improving the quality of agricultural and food technology studies, particularly as a result of the enhancement of practical training. Specifically, thanks to the AGRIVOC project students of agriculture and food technology in Serbia and Bosnia-Herzegovina will be more involved in the learning process, will be provided more opportunities to engage in vocational training and professional practice, and will greatly benefit from strengthened connections between the educational institutions and the local producers and business communities.

An obvious limitation in assessing the broader impact of the AGRIVOC project is that the changes introduced in the curricula and study programs have been officially adopted and become executive only recently (i.e. either in the previous or the current school/academic year), so that it will take at least another three years before the new cohorts of students will complete their education within the frame of the reformed curricula and study programs. For this reason, as some of the interviewees pointed out, it is still too early to advance a clear and detailed estimate of the broader impact of the project in terms of enhancing students' professional skills and employability. Nevertheless, the respondents agree that it is reasonable to expect a positive change in this regard, namely, that the students will likely gain a better understanding of the subject matters and acquire stronger practical skills, which will improve their professional profiles and employability in the agri-food industry.

With regard to the second aspect of the project's impact, i.e. the dissemination of the project's results to relevant audiences (particularly in the agriculture and food technology educational and professional communities), the findings suggest that this has been achieved to a satisfactory level. On the one hand, the project included a working package explicitly devoted to disseminating the project results through the creation of a unique visual identity for the project (i.e. logo, official headers, business cards and specifically designed promotional materials), the creation of an informative website ([www.agrivoc.org](http://www.agrivoc.org)) and a dedicated Facebook page ([www.facebook.com/agrивoc](https://www.facebook.com/agrивoc)), as well as dissemination activities such as newsletters, press releases and participation in several events. On the other, the AGRIVOC project received significant media coverage, particularly (but not exclusively) in the two beneficiary countries, Serbia and Bosnia-Herzegovina (the Project coordinator himself presented and discussed the project in several interviews and TV hostings).

Interestingly, some of the team members who were interviewed maintain that the AGRIVOC project, also as a result to the above-mentioned media attention, contributed to placing the partner educational institutions "in the spotlight", thus improving their status and reputation. This was particularly emphasized in the case of the Prokuplje College of Agriculture and Food Technology, which was the holder the AGRIVOC project. One respondent stated how the improvement of practical training, which was one of the objectives of the project, will most probably augment the institution's capacity to attract new students, thus counteracting the "brain drain" tendency that affects the Prokuplje region. Furthermore, the establishment of the training centres at the partner institutions, along with the purchase of state-of-the-art technical equipment, will certainly have a positive impact on the quality of vocational training itself, and will therefore contribute to improving the synergy between agricultural vocational education and the agri-food industry.

## CONCLUSION

Although it is still too early to provide a detailed assessment of the impact of the reformed curricula and teaching methodologies onto the educational and professional communities targeted by the AGRIVOC project, there is a widespread perception among the team members that the project will shape the social and professional context in which it was implemented in very positive ways. In this regard, it can be concluded that the project will likely make a significant contribution to improving the quality of agriculture and food technology studies in Serbia and Bosnia-Herzegovina.

### 3.2.5 Sustainability and replicability

As indicated above (§ 3.1), assessing the sustainability and replicability of a project implies evaluating the likelihood that the benefits and changes introduced as a result of the project will be continued in the future, after the project has been completed. A key aspect in this regard is the transfer of knowledge among the actors involved, that is, the consolidation and systematisation of the information, competences, knowledge and skills acquired through the implementation of the project, as it constitutes a key precondition for ensuring the sustainability and future replicability of the achieved results.

The AGRIVOC project included a component specifically devoted to sustainability, which included the following activities: a) courses of English language for teachers; b) adoption and accreditation of the reformed study programs; c) accreditation of laboratories (as training centres for students); d) organising of education-business forums. In addition to these activities, a number of financial training sessions were organised in order to enable the partner institutions' directors and chiefs of finance to gain a better understanding of the financial regulations of the Tempus programme. Taken together, these activities created favorable conditions for a fruitful transfer of knowledge among the people involved, thus contributing to the overall sustainability and possible replicability of the project results. For the purposes of the present evaluation, the interviewees were asked to reflect on the issue of sustainability and replicability in more general terms, that is, beyond the individual activities mentioned above. According to some, the greatest benefit of the AGRIVOC project is that it allowed for a very fertile exchange of experiences among teachers and professors from the partner institutions, and particularly a valuable transfer of knowledge from the EU partners to the partners from Serbia and

Bosnia-Herzegovina. As stated above (§ 3.2.3), the study visit to the Educational Training Centre in Hódmezővásárhely (Hungary) in December 2013 was particularly valuable in this regard. Another important factor of sustainability identified by the interviewees is that as many as 15 partner institutions have signed an *Agreement on Educational-Scientific and Technical Cooperation*, which provides a common framework for cooperation in the following areas: mutual visits, study trips and counseling among teachers and researchers; teacher exchange; cooperation in scientific and research projects; student mobility opportunities; cooperation at scientific conferences and symposia; mutual attendance to important events; exchange of scientific information and literature; other forms of cooperation of mutual interest. This Agreement was signed only recently, therefore it will take time to verify its viability and future sustainability. What can be concluded from these insights is that the AGRIVOC project has enabled **a significant degree of knowledge transfer**, which is likely to positively affect the sustainability prospects of the achieved results.

As far as replicability is concerned, it should be pointed out that the **AGRIVOC project has been instrumental in paving the way for further projects in agriculture-related areas**. Firstly, AGRIVOC has served as a springboard for another project targeting agri-food educational and professional communities (AGRIBASE). Secondly, two project applications for Erasmus Plus 2016 are being prepared by some of the AGRIVOC partner institutions in Serbia and Bosnia-Herzegovina, respectively; both project proposals are multidisciplinary and have a specific focus on agriculture and other related areas, such as information and communication technology, business, forestry, tourism, entrepreneurship, food safety and so forth. The Project coordinator aptly described the high degree of replicability of the results achieved under the AGRIVOC project through an 'agricultural' metaphor: "The

*AGRIVOC project has carried out the phase of land preparation, now we can proceed to the seeding phase, which will certainly yield valuable fruits."*

Two additional remarks that emerged from the interviews concern the advantages of establishing cooperation with actors other than higher education institutions in terms of sustainability and replicability. Although the project did not foresee the direct involvement of national authorities (such as relevant Ministries etc.), some interviewees noted that this would have further strengthened the sustainability prospects of the project results. On the other hand, some respondents praised the cooperation between the partner HEIs and WEBIN as a non-governmental organisation, which suggests that such kinds of partnership may be extremely effective in ensuring the future sustainability and replicability of the project.

## CONCLUSION

The benefits and changes introduced through the AGRIVOC project are very likely to be maintained and continued in the future, thanks to the establishment of common frameworks for future collaboration (see the Agreement above) and to the intense transfer of knowledge and competences ensured during the project. Furthermore, the project appears to have laid solid foundations for future interventions in the areas of agriculture and food-technology, both from an educational and a professional/business perspective. Cooperation with non-governmental organisations (specifically with WEBIN) is seen as an additional factor enhancing sustainability and replicability.



### **3.2.6 Best practices and lessons learned**

On the basis of the findings presented in the sections above, and the interviews conducted with several members of the project team, it is possible to identify certain 'best practices' and 'lessons learned' that may be relevant for future development interventions with a similar structure, scope and/or objectives as the AGRIVOC project. These are presented below:

- 1** The challenges that arise from the professional heterogeneity and the human diversity of the people included in the project partnership (see § 3.2.2) can be fruitfully addressed and overcome through sustained teamwork (e.g. meetings, workshops, seminars etc.), which creates the conditions for the team members to become well acquainted with one another and establish relationships based on mutual trust.
- 2** The creation and cultivation of friendly relationships among the team members is an important asset for the effective implementation of the project activities and may serve as a platform for future forms of cooperation, both within and beyond the scope of the project.
- 3** The language barriers existing among team members (particularly between the representatives of EU partner institutions and the representatives of the partner institutions from the Western Balkans) can have a detrimental impact both on the implementation of the project activities and, more importantly, on the motivation and commitment of individual team members, and should therefore be addressed at an early stage of the project implementation.

- 4** Creating opportunities for the exchange of experience and knowledge between institutions of different status (universities and vocational higher schools) located in different contexts (EU

and non-EU countries) is of utmost importance. Specifically, the study visits that were conducted as part of the project - particularly the one to the Educational Training Centre in Hódmezővásárhely (Hungary) - represented valuable opportunities for the team members to learn about (and develop) new approaches to vocational training and professional practice for students of agriculture and food technology.

- 5** It is essential that the new knowledge and skills generated by and through the project are made available to the broader local and professional audiences. An excellent example of this good practice is the drafting and publication of the Handbook on teaching methods in agricultural studies (see § 3.2.3 above), which provides not only a useful resource for the teaching process, but also a basis for improving existing knowledge and approaches in the field of agriculture and food technology studies.
- 6** Managing the complex financial and bureaucratic requirements and procedures of large-scale European projects such as AGRIVOC can pose significant challenges to the people involved, especially if they lack previous experience in this regard. Transparency in the procedures, mutual cooperation and ad hoc training are therefore key to an efficient and effective implementation of the project.
- 7** It is important to formalise existing relations of partnership through mutual agreements, in order to create a common framework for further cooperation in various areas, both within and beyond the original scope of the project. The Agreement on Educational-Scientific and Technical Cooperation (see § 3.2.5 above) is an excellent illustration of this point.

## CONCLUSIONS



- 1** The challenges that arise from the heterogeneity of the project partnership can be overcome through sustained teamwork.
- 2** The creation and cultivation of friendly relationships among the team members is an important asset for the effective implementation of the project.
- 3** The language barriers existing among team members should be addressed at an early stage of the project implementation.
- 4** Creating opportunities for the exchange of experience and knowledge between institutions of different status located in different contexts is of utmost importance.
- 5** It is essential that the new knowledge and skills generated by and through the project are made available to the broader local and professional audiences.
- 6** Transparentnost procedura, medusobna saradnja i ad hoc obuka zato predstavljaju ključ efikasne i efektivne implementacije.
- 7** It is important to formalise existing relations of partnership through mutual agreements, in order to create a common framework for further cooperation.



## 4 CONCLUSIONS AND RECOMMENDATIONS

Drawing on the findings of the evaluation, it can be concluded that through a series of actions aimed at improving, reshaping and promoting agricultural vocational education in 8 higher educational institutions in Serbia and Bosnia-Herzegovina, the AGRIVOC project has not only contributed to tackling some of the key issues affecting the agri-food sector in these two countries, but has also paved the way for further development actions and interventions. As acknowledged by most team members, in fact, what has been achieved under the AGRIVOC project, particularly in terms of partnership and transfer of knowledge, provides an excellent basis for future improvements and progress in the area of agriculture and rural development, with a particular focus on the key role that vocational education and training play in this respect.

Furthermore, on the basis of the findings discussed above, a number of specific recommendations for future development projects, particularly in the area of agricultural vocational studies, can be advanced. These have been grouped in four main categories, as illustrated below:

### 1 Project management:

**a** The project management could be made more effective by allowing the Project coordinator to reduce his/her workload by delegating some of his/her responsibilities to the coordinators of the single working packages. In other words, **a less centralised management structure would be desirable in future projects of this kind.**

**b** **Clearer 'milestones' for the project should be set out**, in order to enable the team members

to follow the implementation of the project activities and acquire ownership over the achieved outcomes and results, with positive repercussions on individual and collective motivation and commitment.

**c** **A greater role should be foreseen for 'external' partner institutions** (from EU countries, in the specific case of the AGRIVOC project), both in terms of more responsibilities and higher budget resources, in order to allow for a more effective transfer of knowledge (both theoretical and practical) from external to beneficiary institutions.

### 2 Connections with the local and national context:

**a** Projects of this kind would probably benefit from a greater **involvement of the local and national authorities** (such as municipalities and the relevant Ministries), for example through informative meetings or training sessions focused on the legal and normative framework of the activities planned under the project.

### 3 Project partnership, coordination and communication:

**a** **Possible language barriers should be timely addressed** in order to enable an effective exchange of knowledge and information among the team members and enhance individual motivation. Clear procedures concerning working languages and translation services should be in place as soon as the project starts.

**b** Apart from presenting and promoting the outcomes and results achieved by the project, the **website could be fruitfully used as an online platform** for discussion and exchange

of information among the team members, and possibly as an online forum open to wider audiences and professional communities apart from those directly involved in the project.

#### **4 Project implementation and specific activities:**

- a** Future projects in the area of agriculture and food technology education should extend the results achieved by the AGRIVOC project by **creating further opportunities for student mobility and exchange among the partner institutions**, in order to make the best use of the newly established educational centres for practical training.
- b** Broadly speaking, **students (as final beneficiaries of the reform) should be more involved in certain components of the project**, and their feedback should be taken into greater account.
- c** Future projects focusing on improving agri-food vocational training should include substantial **financial support for further improving the existing laboratories and training centres**, specifically through the purchase of new equipment.





## ANNEX 1

# LIST OF INTERVIEWEES

Name, surname and institutional affiliation	Role(s) in the AGRIVOC project	Details of the interview
<b>Karoly Bodnar</b> University of Szeged (HU)	Coordinator Szeged	Prokuplje, 9/11/2015
<b>Gordana Bogdanović</b> College of Applied Vocational Studies Vranje	Coordinator Vranje	Prokuplje, 9/11/2015
<b>Miljan Cvetković</b> University of Banja Luka	Coordinator Banja Luka; Member of benchmark survey team; Member of teaching handbook development team; Member of joint procurement commission	skype, 27/10/2015
<b>Dženan Husnić</b> University Džemal Bijedic of Mostar, Agro-Mediterranean Faculty	Member of joint procurement commission	Prokuplje, 9/11/2015
<b>Marija Jović</b> College of Agriculture and Food Technology Prokuplje	Member of QA&M committee	Prokuplje, 9/11/2015
<b>Tibor Konyves</b> Megatrend University - Faculty of Biofarming Bačka Topola	Coordinator Bačka Topola; Member of steering committee; Member of benchmark survey team; Member of joint procurement commission; Member of WG on animal husbandry	Prokuplje, 9/11/2015

<b>Vera Milošević</b> High Agricultural School of Vocational Studies Šabac	Member of QA&M committee; Member of joint procure- ment commission	Prokuplje, 9/11/2015
<b>Dionyssios Perdikis</b> Agricultural University of Athens	Member of QA&M committee	Prokuplje, 9/11/2015
<b>Saša Petrović</b> College of Agriculture and Food Technology Prokuplje	Member of steering committee; Member of joint procure- ment commission;	Prokuplje, 9/11/2015
<b>Miloš Purić</b> High Technical School of Professional Studies Požarevac	Coordinator Požarevac; Member of Working Group on food technology	Prokuplje, 9/11/2015
<b>Dragana Stanislavljević</b> College of Agriculture and Food Technology Prokuplje	Member of WG food technology	Prokuplje, 9/11/2015
<b>Grujica Vico</b> University of East Sarajevo	Member of steering committee; Member of joint procurement (tender) commission	skype, 26/10/2015
<b>Nebojša Zlatković</b> College of Agriculture and Food Technology Prokuplje	Project coordinator	skype, 23/10/2015

## ANNEX 2

# QUESTIONNAIRE

### Relevance [REL]

**REL. 1.** The broad objective of the Agrivoc project was to improve and upgrade vocational study programs in selected agriculture and food production disciplines (at professional BA and MA levels) in Serbia and Bosnia-Herzegovina. Why was this project needed in your opinion?

**Follow-up questions:** What specific problems/issues/weaknesses did it address? How was it relevant/important to the beneficiaries (i.e. students and teachers)? Was the project consistent with broader (e.g. country or global) trends and/or policies?

### Effort, Efficiency and Effectiveness [EFF]

**EFI.1** To the extent that you have been involved in the reshaping of the curricula in selected agriculture and food production disciplines (in order to make them better suited to the demands of the agri-food labour market), how would you describe and evaluate the working process in this respect?

**Follow-up questions:** How would you assess the organisation and implementation of the concrete activities in which you participated in the past three years? What specific aspects/factors do you think were most helpful in making the activities successful? Were there any factors that sometimes caused barriers or undermined the process?

**EFI.2** To the extent that you have been involved in the *improvement of the teaching methodology* in vocational training, how would you describe and evaluate the working process in this respect?

**Follow-up questions:** How would you assess the organisation and implementation of the concrete activities in which you participated in the past three years? What specific aspects/factors do you think were most helpful in making the activities successful? Were there any factors that sometimes caused barriers or undermined the process?

**EFI.3** To the extent that you have been involved in the *establishment of training centres for students*, how would you describe and evaluate the working process in this respect?

**EFI.4** From your own perspective, how would you describe and evaluate the way in which the project was managed in terms of *coordination and communication* among the people involved?

### Impact and Change [IMP]

**IMP.1** The broad objective of the Agrivoc project was to improve and upgrade vocational study programs in selected agriculture and food production disciplines (at professional BA and MA levels) in Serbia and Bosnia-Herzegovina, in order to upgrade the knowledge base and practical ability of students to work in the agri-food sector. To what extent has this been achieved? How significant is the change produced by the project?

**Follow-up questions:** To what extent did the project meet the needs you identified in the first question (REL.1)? How do changes compare to what was hoped for, or considered realistic? How has the project improved the position of agricultural studies in the Serbian educational system? How will the project positively affect the lives and work of the people involved (teachers and students)?

### **Knowledge transfer and dissemination [KNO]**

**KNO.1** How would you describe and evaluate the dissemination of the project results and the transfer of knowledge among the institutions involved in the project?

**KNO.2** How would you describe and evaluate the way(s) in which the new information and knowledge produced through the project, particularly in terms of curricula and teaching methods, has been disseminated within your own *educational institution*?

**KNO.3** How would you describe and evaluate the dissemination of the project results to *local communities and the wider public*?

### **Sustainability [SUS]**

**SUS.1** How would you assess the future sustainability of the results achieved by the project?

**Follow-up questions:** What is the significance in terms of sustainability of the following elements: 1) English classes for teachers; 2) Financial training for teachers; 3) Accreditation of reformed curricula;

4) Financial sustainability of the established training centres?

**SUS.2** How would you evaluate the international partnership upon which the project is based?

**Follow up questions:** What have been the main advantages of this form of cooperation, particularly in terms of sharing knowledge and best practices? What have been the main difficulties? What is the significance of improving your own institution's international profile?

**SUS.3** To what extent has the project improved the connection between the educational system and the agro-food labour market in Serbia?

### **Lessons learned [LES]**

**LES.1** Looking back at how the project has been implemented, what aspects of the project do you think were particularly well planned and carried out?

**LES.2** Is there anything that could have been done differently?

**LES.3** Do you have any suggestions or recommendations for the future?

### **End [END]**

**END.1** Is there anything that you find important to share with us and was not covered by the questionnaire? Do you have any additional comment regarding any of the points we have addressed in this interview?



# AGRIVOC

Reshaping of Agricultural Vocational Studies  
in the Western Balkans

Belgrade 2015.