



# Report on inter-project coaching

**DEV 5.3** 



Blending Academic and Entrepreneurial Knowledge in Technology enhanced learning – BAEKTEL





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# Report on inter-project coaching

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# Contents

1	Introduction	5
2	Interproject coaching with CASA project	5
3	Interproject coaching with INCOMING	8
4	Inter-project coaching with KLABS	.11
5	Inter-project coaching with K-FORCE	.12
6	Inter-project coaching with MArED	13





#### 1 Introduction

This document presents a report on the inter-project coaching of the BAEKTEL (Blending academic and entrepreneurial knowledge in technology enhanced learning) project with other Tempus projects. To promote the project and to get external feedback, inter-project coaching was organized with members of the most suitable running Tempus and other projects dealing with aspects of e-learning development and quality of the teaching process.

The report contains the results of cooperation with colleagues from other project and meetings outlines. For preparation of this document reports from meetings were used, documents placed on internal project portal, social networks and external project site.

## 2 Interproject coaching with CASA project

Within the TEMPUS project CaSA (Building Capacity of Serbian Agricultural Education to Link with Society) an open National Repository for Agricultural Education (NaRA) was developed, with online courses and teaching material, live stream trainings, results from the research projects, and different data sets. Cooperation between BAEKTEL and CaSA projects stared in April 2016, which was followed by several technical meetings and exchange of ideas and experiences. During that cooperation, BAEKTEL team offered to CASA team support for linguistics and terminological tools and guidance in terminological database building.



Figure 1 Milica Petrović, dean of Faculty of Agriculture, Vesna Poleksić and Ranka Stanković, first cooperation meeting





On May 12, 2016, participants in the CaSA project Vesna Poleksić and Milevica Bojović attended a workshop organized by BAKTEL project at University of Belgrade Faculty of Mining and Geology.

Within the workshop Ranka Stanković gave an introduction into state of the art of the deliverable "Multilingual terminological resources and services used for supporting OER multilinguality". After a short introduction she gave the language support system overview. The multilingual resources were explained thought the computer-lexicographical process for online dictionaries, terminological standards TBX and TMX, as well as guidelines. Brief overview of translation tools was presented with OmegaT, MemoQ andSDL Trados.

Presentation of services for multilingual support included TERMI application demonstration available at <a href="http://termi.rgf.bg.ac.rs/">http://termi.rgf.bg.ac.rs/</a>. Marija Radojičić from UB performed training for using TERMI application. The data entry into the application was demonstrated and all meeting participant actively joined the data entry session. Before the meeting, each partner has prepared at least 20 term entries with definitions and 5 bibliographies, in order to speed up data entry during workshop session. Participants of CaSA project also took an active part in this process.

It was concluded that the CaSa project can have also benefits from using Termi application and a working and inter-project coaching meeting was scheduled for beginning of June.

Results of that cooperation were presented at the Final conference of the CaSA project, held at Faculty of Agriculture at University of Novi Sad, September 26-28, 2016. Within the conference, cooperation and collaboration between two TEMPUS projects CaSA and BAEKTEL was presented. Special attention was paid on the achieved results and plans for future collaboration.

Software solutions for these two projects were discussed, and advantages and disadvantages compared. The team members of the two projects shared experiences in overcoming some challenges in applying software solutions. Especially importance of institutional support for creating, sharing and publishing of OER materials was emphasized. A fruitful discussion about sustainability of TEMPUS projects such as CaSA and BAEKTEL also took place.

In the main part of the conference collaboration between TEMPUS project CaSA and TEMPUS project BAEKTEL was presented, especially the joint work on terminological dictionary. The audience had opportunity to see some additional options on TERMI application for terminology developed within BAEKTEL abd also used within CaSA. The draft plan for future collaboration was also made. Next steps for connecting terms from TERMI application to NARA were later implemented and now are functioning. The resources of project CaSA are described at BAEKTEL metadata repository Resource space, to increase visibility.







Figure 2 Marija Radojićič at the Final conference of the TEMPUS project CaSA

Second public presentation of the cooperation CaSA-BAEKTEL was held in Belgrade, at Faculty of Mathematics, where Vesna Poleksić, project leader of CaSA project gave a lecture within Jerteh seminar at University of Belgrade Faculty of Mathematics. She presented characteristics of their development environment and implementation issues related to interlinking with BAEKTEL resources and tools. She demonstrated query expansion possibility available by clicking on termbase link, which generates and expanded query with all synonyms and inflected forms of keywords and a request for NARA DPASE query engine.

Nara's OAI server (one of DSpace applications) has been deployed which enabled harvest of metadata and bitstreams by other repositories which support OAI-PMH, OAI-ORE and other metadata exchange protocols derived from these two, in multiple metadata formats. Nara has been registered with ROAR and OpenDOAR repository registers as an OAI data provider.

As a part of "inter project coaching" (CaSA and BAEKTEL projects) in coordination with TERMI developer team, additional modification of Dspace Dublin core schema has been done, with aim to link every key word with TERMI glossary. In order to integrate NARA with TERMI, metadata from all items deposited in NARA have been exported and then passed through special software which detected the language and then corrected any mislabeled language tag fields for each entry. This also formed a vocabulary of possible queries to TERMI, originating from NARA.

An XSL code used to generate front-end for DSpace Xmlui (Cocoon based application) has been modified to be able to detect and parse all terms defined in TERMI's dictionary among all keyword metadata. Any detected term is automatically linked to its definition page in TERMI.

Also to highlight the important external link, with clear preview in browsers, in some NARA DSpace records (link to corresponding Moodle course, or any other significant external URL address), additional meta field "dc.identifier.link" was created and implemented into the existing Dublin schema.





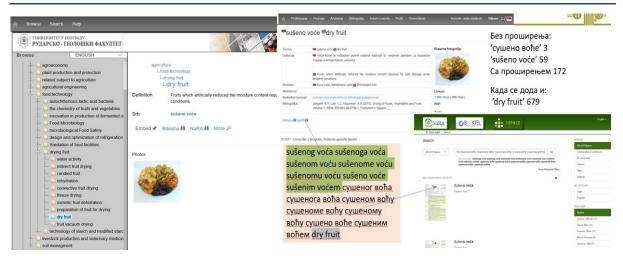


Figure 3 Termbase interaction with NARA repository

Nowadays the TERMI database contains about 700 terms from agricultural domain, but the aim of both teams is to use textual repository for further text analysis and term and usage example extraction. Joined application for new project Technology enhanced lexis teaching and acquisition in the Western Balkans HEIs with acronym TELTA was submitted in February 2017, with the aim, among others, to improve and sustain the results of both projects will be within a new project.

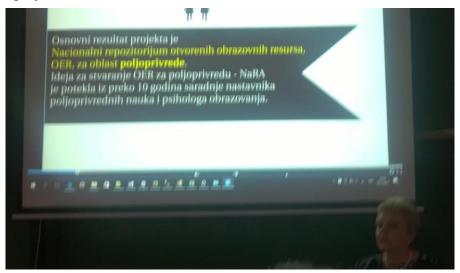


Figure 4 Vesna Posleksić at Faculty of Mathematics

# 3 Interproject coaching with INCOMING

Several sessions of inter-project coaching between ongoing TEMPUS projects INCOMING and BAEKTEL were held. This interchange of ideas and experiences was based on some overlapping issues tackled by the two projects as well as the fact that several team members from UNIKG and UB participated in both projects, and have already been present at the BAEKTEL kick-off meeting held in Belgrade on February 24-25, 2014. As INCOMING was





at that time already in its second year, they were able to offer some useful input and suggestions from the very beginning of the BAEKTEL project.

Cross-pollination between the two Tempus projects has continued and Marija Radojičić from the BAEKTEL UB team presented the state of the art of the BAEKTEL project to members of INCOMING team at a meeting held at the Faculty of Technical Sciences Čačak on January 27-28, 2015. She also had the opportunity of getting a detailed insight in the state of the art of INCOMING. Further during the meeting possibilities of closer cooperation between the two projects were discussed and another meeting was arranged for the second half of the year.



Figure 5 Marija Radojičić with members of INCOMING team in Čačak, January 2015

The second inter-project coaching meeting with the INCOMING project with the participation of Mart Laanpere, from Tallinn University took place on September 25, 2015 at the University of Belgrade, Faculty of Mining and Geology. Several topics were discussed related to project management, dissemination, quality assurance and possible cooperation in production and publishing of educational resources. Namely, BAEKTEL offered its resource framework to INCOMING for publishing course material and/or some additional educational resources related to teaching interdisciplinary subjects. Mart agreed to present that offer at the next INCOMING meeting.

Mart also shared his experiences related to accreditation of four out of six INCOMING interdisciplinary programs. He was asked about alignment between planned and realized mobility, and he said that it is pretty aligned, but that they adapt to the needed activities and personal availability. He praised the BAEKTEL web site and dissemination activities. He stated his opinion that students' activities and other low cost possibilities should be used wherever possible. On the issue of sustainability he didn't have a specific answer, stating that it is in general a problem to assure it. A survey of OER awareness among students by means of a





questionnaire can be performed in order to establish the state of the common knowledge about OER. Also, some kind of event with Comtrade, an industrial partner, as well as other industry partner can be initiated with the main topic of interdisciplinarity. He also elaborated the loss of communication with entrepreneurial partners, due to organizational changes in those companies and institutions.



Figure 6 Interproject coaching session in Belgrade in September 2015

As a result from this interaction of the two projects, besides the interchange of ideas and experiences are OER resources developed within BAEKTEL that are being used in courses developed within INCOMING, such as "Lexical recognition in natural language processing", which is used within the MsC study program Social Sciences and Computing developed at UB within the INCOMING project. Another course on Python programming language is being developed within BAEKTEL for the same study program. Students of this study program have also been introduced to OERs and BAEKTEL project aims and results within a lecture given by Ivan Obradović.





## 4 Inter-project coaching with KLABS

Creating the Network of Knowledge Labs for Sustainable and Resilient Environments (acronym KLABS) is an Erasmus+ project that was kicked off in October 2015 with one of the goal being to set up an educational platform that addresses two current and equally important challenges of urban and rural built environments in Western Balkan – sustainability and resilience to climate change.

As KLABS and BAEKTEL have several overlapping objectives, and since UBL is taking active part in both projects as one of the partners, it made perfect sense to facilitate regular interproject coaching meetings.

At the time KLABS was kicked off, BAEKTEL was already in its third year, hence we were able to offer some valuable inputs and suggestions from the very beginning.

The official inter-project coaching meeting took place on February 10th, 2017, at the Faculty of Architecture and Civil Engineering, University of Banja Luka, when prof. Aleksandar Borković from the BAEKTEL team presented the state of the art of the BAEKTEL project to members of KLABS team. For the project KLABS, prof. Nevena Novaković gave a detailed insight in the state of the art of KLABS.



Figure 7 Interproject coaching session in Banjaluka in February 2017

Some of the key objectives of KLABS project include the development of the inter-institutional, flexible learning paths, where elective subjects developed in one of the Partner Countries institutions will be offered to the students at other participating institutions, based on the principle of virtual mobility and with the support of modern ICT, e-learning and open educational resources created for this purpose. This is in perfect alignment with some of the BAEKTEL objectives, specifically, to provide training for relevant members of HE institutions and enterprises responsible for production of OER materials, establish Guidelines and





procedures for creating, publishing and ensuring the quality of OER, and finally, to offer the use of BAEKTEL's network of nodes and OER meta portal for OER distribution. It was agreed to establish and maintain close cooperation between two teams, and to plan its realization as KLABS project progresses.

## 5 Inter-project coaching with K-FORCE

Knowledge for Resilient Society (acronym K-FORCE) is another Erasmus+ project that started in October 2016 with the objective to improve regional resilience to hazards and capability for regional cooperation in risk prevention and response and to ensure national professional resources and regional capacities in order to build regional-based disaster preparedness and a culture of safety and resilience at all levels according to EU Integration Strategies and National relevant strategies.

The project is of special interest, considering the devastating floods that hit Bosnia and Herzegovina, Serbia and Croatia in May, 2014.



Figure 8 Interproject coaching session in Banjaluka in April 2017

As K-FORCE and BAEKTEL have several complementary objectives, and since UBL is taking active part in both projects as one of the partners, it was arranged between the team members to facilitate regular inter-project coaching meetings in order to explore some of the ways projects can complement each other and in doing so, expand their impacts.

The official inter-project coaching meeting took place on April 20th, 2017, at the Faculty of Architecture, Civil Engineering and Geodesy, University of Banja Luka, when prof. Aleksandar Borković and prof. Gordana Broćeta presented state-of the art of both projects.





Among other things, it was concluded that some of the key objectives of K-FORCE project can be greatly complemented with BAEKTEL's infrastructure. Specifically, K-FORCE foresees continuous professional development of employees in Disaster Risk Management and Fire Safety Engineering (DRM&FSE) sector in WBC through creation and implementation of certified life-long learning courses for practitioners. Learning materials for these courses could be published in the form of OER, in which case, Guidelines and procedures for producing and publishing OER that were produced through BAEKTEL, can serve as a good basis. Second, it is also planned to modernize teaching and training process on novel technical and technological solutions, exploiting the ICT application. This could be partly, if not fully, achieved with the use of BAEKTEL's *edx* portal, whose purpose is to serve complete online courses and improve the overall learning experience.

It was agreed to establish close cooperation between two teams, and to hold regular meetings to help further improve these activities as K-FORCE project progresses.

## 6 Inter-project coaching with MArED

Modernizing and harmonizing maritime education in Montenegro and Albania – MarED project arose in response to the obligations of Partner Countries concerning the ratification and implementation of the latest amendments to the International Maritime Organization (IMO) regulations related to education and training of seafarers. All necessary changes and harmonization aim to meet the prescribed international standards to be carried out by 2017, in order to enable the educational and training systems of Partner Countries keep the status of internationally recognized maritime educational and training institutions.

The latest IMO requirements refer to the reform of the existing and development of new study programmes, which anticipates the creation of opportunities for both theoretical and practical training of students, through the modernization of laboratories, marine simulators and practical workshops. Furthermore, by introducing certain IMO model courses for seafarers, the educational institution aims to develop a lifelong learning process for providing the seafarers with the possibility of continuous professional training. The harmonization of the educational programmes with valid international standards, as stipulated by IMOs STCW Convention and its Manila amendments 2010, ensures the survival of maritime educational institutions and their competitiveness in the international market, thus ensuring the competitiveness of the seafarers from Partner Countries, as well.

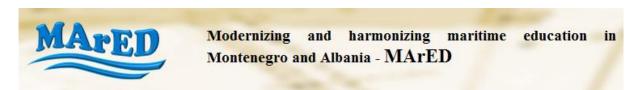


Figure 9 MarED logo





The official inter-project coaching meeting took place on July 11–12, 2016 in Portorož, Slovenia gathering representatives of the University of Kragujevac and University of Ljubljana - Faculty of Maritime Studies and Transport.

At the beginning of the meeting the University of Kragujevac presented current state regarding OER and activities within WP4. Also, overview of created OER and proposed Baektel platform was done. Internal and external OER evaluation and improving Baektel network was presented. Representatives of UNIKG discussed with representatives of University of Ljubljana about potential activities further improvement of platform.

The objectives of MarED project can be complemented with BAEKTEL platform. Further development of LLL courses within MarED project could be implemented via BAEKTEL platform. Also, OER from BAEKTEL platform could be used for update existing and build new teaching and infrastructural resources within MerED project.

It was agreed to establish cooperation between two teams and help each other in improving activities in both projects.