competence

Manual 4:
Strategy and Curriculum
Development

COMPETENCE –
Matching competences
in higher education and economy:
From competence catalogue
to strategy and curriculum development

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Manual 4:
Strategy and Curriculum
Development

The manuals in this series provide insights into the following topics:

Manual 1: Competence Based Thinking

Manual 2: Matching Competences between Higher Education and the Labour Market

Manual 3: Developing Competence Catalogues

MANUAL 4: STRATEGY AND CURRICULUM DEVELOPMENT

Introduction

Introduction

After almost three years, the project Competence is coming to an end. The project team consisted of representatives of four universities from the Western Balkans, three EU universities and one NGO from the EU who put joint efforts into finding ways for enhancing the employability of university graduates and boosting economic development of the Western Balkans region by better linking of higher education and economy.

Throughout the project, eight pilot study programs were analysed to enhance the employability chances of their graduates, based on their closer linkage with the labour market and the institutionalization of the competence based approach. This was done through the research of the „right" competences which are necessary for successful employment, in close cooperation with companies, graduates and teaching staff. This complex process is documented in four practical manuals developed within the project to enable sharing of knowledge with other faculties and universities.

This Manual completes the set of four Competence manuals developed within the project and is devoted to the last step of introducing the competence based approach, namely Strategy and Curriculum Development based on the outcomes of the previous phases in this process, and to the competence based learning as an ongoing process.

Thus, the set of manuals has the intention of supporting the interested universities and stakeholders to introduce competence based teaching and learning in a systematic way. The manuals focus on practical steps, starting from competence based thinking to informing the stakeholders about the necessity of this approach from the perspective of modern EU higher education system.

The materials we have developed are available in the download section of the project's homepage www.link-competences.org.

The project team hopes that our experience will be useful to many other colleagues. We understand introduction of the competence based approach as a complex process, requiring technique, persistence and patience, as well as involvement of colleagues, management and stakeholders in higher education systems.

Phase 7:

Strategy and Curriculum Development

Curriculum and strategy development are both at the end and at the beginning of introducing competences into teaching and learning. The curriculum development / reform in this project was a direct result of the assessment of competences needed within a study program from both academic and employability perspective. In general, this assessment of competences can either be conducted prior to the establishment of a study program and thus be integrated into the study program development from the start, or help reform an existing study program to increase employability perspectives of the graduates.

In the project Competence, the surveys were conucted for eight already existing study programs. The survey results led to numerous recommendations on better linking of the analysed study programs with the labour market, accompanied by an analysis of obstacles to the implementation of the recommendations, possible ways to overcome the obstacles and predicted level of short and mid-term success of implementing the recommendations. All recommendations were based on previous problem analysis and were focused on very practical steps for reaching the goals of the project.

Legislation Bologna Declaration EQF	University / Study Program Educational Vision profiling	Stakeholders Work field	Peer Study Program EU / World

EXPECTED COMPETENCES

Phase 7

Some of the main recommendations were:

- **Better linkage of study programs with relevant companies,** for example through institutionalized internships, study visits to companies, doing research / thesis for companies etc.

- **Founding of alumni data bases and alumni associations** to enable getting feedback from graduates and their employers.

- **Better balancing between specific and generic competences,** to achieve optimal profiles of the graduates.

- **Usage of competence catalogues** or similar tools for a systematic overview of the desired graduate profiles (competences) and teaching / learning / examining activities to reach them.

For a successful introduction of a competence based approach in higher education, support of ministries of education, local accreditation and quality assurance agencies as well as of university / faculty management structures is indispensable.
Thus, within the project Competence, a document named „Declaration" was developed for the stakeholders, with the aim to facilitate involvement of main stakeholders into the process of systematic introduction of competence based teaching and learning at universities in the Western Balkans in the context of European higher education. The Declaration presents to the stakeholders the most important strategic considerations, which are derived from project experience and translated into practical tips. This document also gives a full picture of the competence based learning and teaching in the contexts of current European higher education development.

Phase 7

To sum up, the project Competence was implemented in four phases:

STEP 1:
For a successful introduction of the competence based approach, first it was necessary to define competences and to elaborate the concept of competence-based thinking. Manual 1 dealt with these introductory topics.

STEP 2:
The next step was devoted to practical matching of competences between higher education and the labor market: competence assessment in practice (survey) and establishment of competence centers at universities. These were the topics of the Manual 2.

STEP 3:
After the practical survey has shown which generic and specific competences were the most relevant for the eight analyzed study programs, competence catalogues were developed with the goal of strategic integration of these competences into the curriculum, teaching/learning and evaluating activities. This process was illustrated by the Manual 3.

STEP 4:
As a final phase, recommendations for curriculum and strategy development are elaborated in this Manual 4, as explained below.

Phase 7

In the past, universities had a very good performance in close relation to the reputation of their staff. These staff members were autonomous professionals. Professors were defining, measuring and delivering their own educational services. Since the Bologna process started, more and more attention is going to student centred education, to competence based education and to the link with the work field of the alumni.

We, the Competence consortium, did a brainstorming session with the intention to verify which are the major pitfalls to enter competence-based learning and better cooperation with industry. We tried to transform these pitfalls into challenges and make recommendations to the parties involved in this transformation process.

So during the brainstorming session we tried to divide our recommendations into 3 different levels: policy, institution and study program. These "levels" influence each other very much. Decision-making at the higher level will certainly strongly influence the underlying. However, we argue that just as when introducing major reforms and quality management, top-down and bottom-up approaches are applied here. Sometimes it will depend from the local situation to what level the challenges and recommendations belong.

Recommendations on Policy Level:

Encourage the decision makers to take measures for a better understanding of the effects of the Bologna declaration e.g. competence based teaching and learning. This can be done by organising trainings and awareness raising campaigns.

Introduce a more flexible accreditation process that should allow more creativity and flexibility in designing and adapting the study programs. In a first step we propose smaller changes in the curricula to be allowed without the need of the reaccreditation of the study programs. In the future, reaccreditation should be done after 4 or 6 years so that all study programs can adapt themselves to the implications of the Bologna declaration.

Include competence based learning requirements in the accreditation process. This would be an enormous support for introducing the competence based approach at all university levels.

Include the learning outcomes in the ECTS description files so that students have the opportunity to know in advance which competences he or she will acquire in all course units. Also include the acquired competences by describing the learning outcomes into the diploma supplement (not the list of expected competences to be acquired during the study program but the list of the really acquired competences by each student separately). This helps also the employers and HE institutions to have a clear picture about the profile of the student or the future graduate.

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Recommendations on Institutional Level:

Develop and strengthen the relations between the universities, the faculties, the study programs and the employers. This can happen via e.g., internships, the master thesis of the students, job fairs, guest professors, applied research and by collecting a systematic feedback from the employers. Establish a database of employers and alumni.

Install a Competence Observation Centre (COC) as a central service. It should have close links with the quality management office. With help of the COC organise trainings and information campaigns for awareness raising before starting the implementation of this reform.

Develop tools to help the teaching staff to manage the competence related information. Introduce the competence based educational approach by planning carefully and by systematically involving the whole teaching team. Start by implementing the new processes with the most motivated staff members and disseminate examples of good practice.

Teach and assess generic competences (team work, creativity, critical reflection etc.) by integration in all course units rather than teaching in separate course units.

Training materials and tools developed in this project can be used and are available at

**Recommendations on Study Program Level:**

Introduce in all study programs a system for continuous evaluation of the employability of the graduates. The teaching teams and the management on study program level should have a joint vision of continuous contact and cooperation with the stakeholders in the professional fields of their graduates. Establishing close contacts with the work field of alumni should be considered as a basic task of all teaching staff members.

Organise training sessions and team meetings to reach a clear vision of the competence based teaching process, the Bologna principles and the adopted strategy, shared by all team members.

Describe each course unit with the specific content, learning outcomes, learning activities and assessment methodology related to concrete competences. ECTS description files can be used as starting points.

Introduce a systematic approach to integrate generic competences into the curriculum. Some possible instruments (e.g. competence matrix) have been developed during this project (see www.link-competences.org).

Steering the whole learning process by assessing students is a very powerful tool for introducing competence centered learning. The evaluation process should consist of several different evaluation methods and activities. The assessment should be planned and described before the teaching starts. The ECTS description file is an important tool used to transfer and accumulate credits. In this file the content, the learning outcomes, the learning and evaluation activities have to be clearly described. It is also a necessary condition to obtain the ECTS quality label.
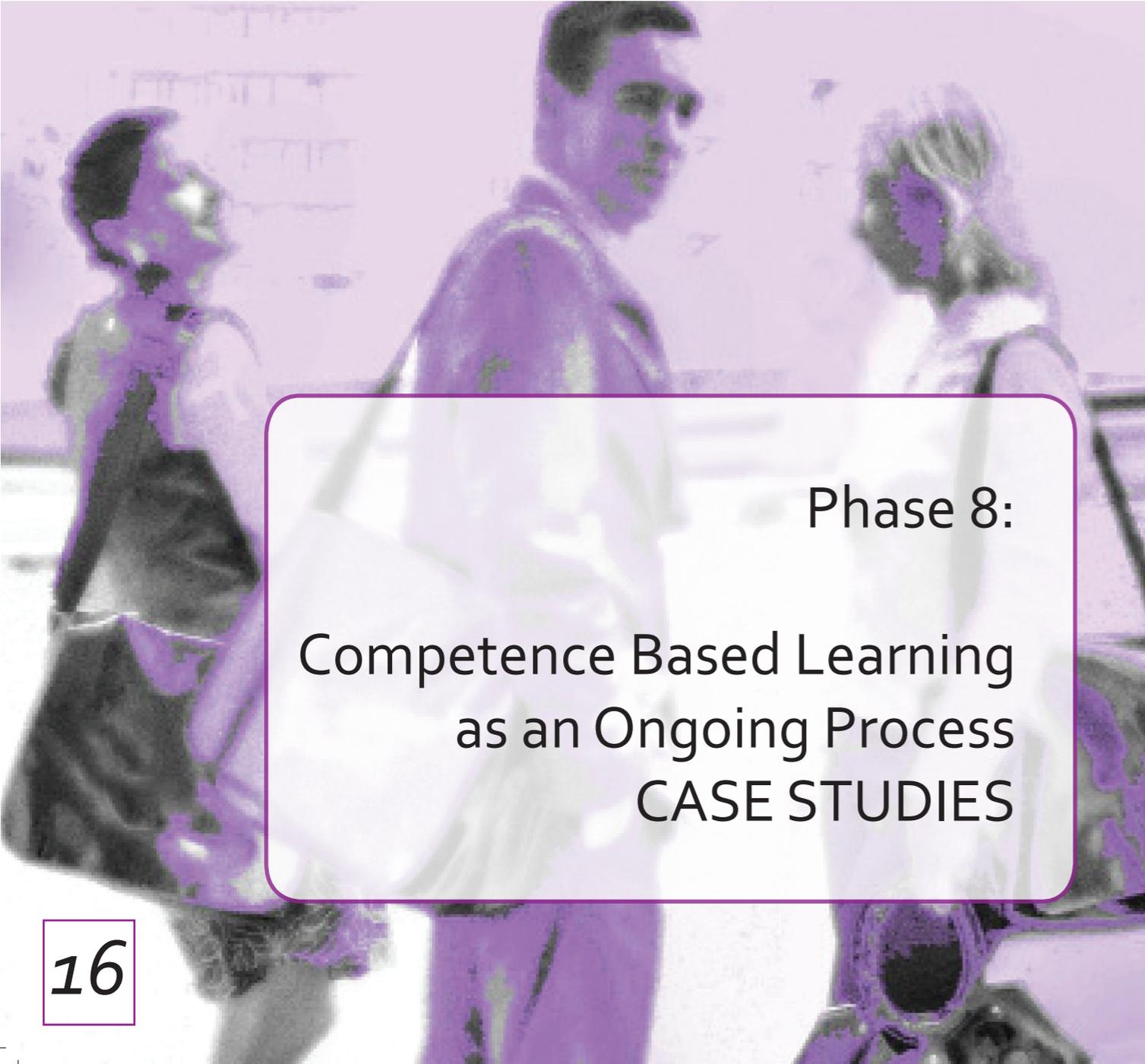
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Phase 8:

Competence Based Learning as an Ongoing Process
CASE STUDIES

Establishing a Competence Observation Center (COC) by itself will not solve all problems, but it is very crucial for the functioning of the competence based approach. The COC is identified as the foundation for maintaining the competence based approach through appointing the responsible departments and staff with clear sets of activities and job descriptions in order to be able to reach the defined aims.

The process of institutionalization of the competence based approach is also very important because it will indirectly show whether there is support of the top management for the implementation of this approach. Support of the top management is vital for the successful implementation and realization of the approach. The absence of support of the top management is a precondition for facing other eventually arising challenges and/or obstacles which are connected with the implementation of competence based teaching. Such obstacles and/or challenges are often connected to the allocation of human capital or other resources, to professors being resistant to change, ect..

Refusing, delaying or making irrelevant decisions about the institutionalization of the competence approach will send a subtle sign for the absence of an essential support of the top management when the competences are in question.

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Phase 8

Phase 8

Here are some examples that are showing the lack of essential support of the top management:

The top management would never express direct denial of this approach but it would delay the establishment of the COC with excuses like: "...we are supporting the approach and are very interested in it, but many other important things are happening ...".

ACTION: Initialise meetings with the top management to explain the importance and the potentials of the approach.

The top management is avoiding the institutionalization of the COC with explanations like: "Why should we burden our organisational structure with additional departments? It is anyhow too complex and confusing.".

ACTION: Initialise meetings with the top management to explain that the approach can be organised in different ways without extensive efforts and costs (detailed information about this issue will be given in the following section).

Since this approach is relatively new it is expected that every new top management team will question the need for this approach with questions like: "Do we really need this? What is our benefit out of this?".

ACTION: Initialise meetings with the top management to explain the importance and the potentials of the approach and to show the current achievements.

For this reason, the analysis concerning the relationships of the competence based approach with other university functions is very essential. In the following text some of the university departments/functions that are closely connected with COC are explained in detail.

Department of Quality Control:
The competence based approach is changing the whole process of higher education on the level of study programs and courses/subjects – starting with the lecture planning, followed by holding the lecture and ending with the assessment of the students. These changes have to be aligned with the quality standards and policies adopted at the certain university, usually monitored by the Department of Quality Control.

Alumni Association:
The competences in their essence are a tool to link industry and the university. The same is valid for the alumni associations – because of this reason it is clear that the same organisational department is responsible for both of them.

Internship Department:
Competences should be monitored and changed – competences once established, should not be understood as final but, the lifelong learning process should be fostered. The Internship Department is just another way of establishing a link between the industry and the university. These departments are frequently responsible for monitoring the needs of the industry in order to realize the internship process smoothly. This also makes the Internship Department eligible to be responsible for the competences approach.

ESTABLISHING THE COMPETENCE CENTER
Robert Minovski, Ss. Cyril and Methodius University

THE ROLE OF STAKEHOLDER FORUM IN THE PROCESS
OF COMPETENCE BASED EDUCATION
Darko Petković, Dženan Kulović, Mirza Oruč, University of Zenica

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Business Start-Up Center (BSC):
One overall set of competences should also include the entrepreneurship aspect. Among other things, BSC is usually responsible for the detection, development and improvement of the entrepreneurial skills of students and fresh graduates.

Department for Development of Study Programs:
Integrating the competences into the study programs is a dynamic concept. The development of study programs has dramatically changed, especially in the last two decades. The idea to come closer to the industry needs in order to improve the competitiveness of the university graduates urged the need for more frequent development of new and adaptation of the existing study programs (dynamic environment → dynamic industry → dynamic competences → dynamic study programs). Having also in mind the enlarged number of study programs per university, the establishment of separate Departments for Development of Study Programs became usual practice. Since the competences have to be integrated into the study programs, giving that responsibility to these departments may not be a temporary but also permanent solution.

It is not sufficient to attach the COC to one of these departments leaving the others unchanged. For successfully introducing a competence based approach all of these departments need to be involved in the process.

University of Zenica formed a stakeholder forum with the aim to integrate economic and educational institutions. It is necessary to ensure closer cooperation with the local community for the purpose of re-engineering and modification of curricula. In fact, the only way to create integral connection is trough stakeholders forum. This will lead to certain changes and redesigns of curriculum and organisational structure following strategy commitments. University mission will be significantly changed by stakeholders forum and it will incorporate the requirements of key stakeholders that will be mapped as an interest group of special importance to the University. It is important to take care of the internal stakeholders: students, business owners and founders and employees as well as of external stakeholders who come from our target enironment (closer and further political, economic, social – legal and technological). To make stakeholder forum functional it was necessary to create a conceptual framework, to access this framework by university management and after that to change university statutes, which has resulted in amendments to statute articles, as shown below.

Article 105. (Other bodies of University)
1. The University has other professional and advisory bodies. The Quality assurance board, the Stakeholder forum and committee, who are as parmanent bodies, appointed by the Senate.
2. The Quality assurance board consists of the University management, QA manager at University level, and QA managers of organisational units.
3. The Stakeholders Forum consists of employers, ministries, organisations and associations that are directly and indirectly interested in the work of the university. Election and the composition is regulated by the "Rulebook of Stakeholders".
4. In addition to permanent bodies in the preceding paragraph, the Senate, may appoint ad hoc bodies.

Article 332. (Quality system)
1. The university provides a continuous development of quality in all aspects of its work.
2. The university system for quality assurance is realized trough the committee for quality, at the University Board, QA office and a board for quality at level of each organisational unit of University, sub boards and the Stakeholder forum which consists of representatives of the business environment outside the University.

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University environment is of great importance. The environment of the university consist of several elements as presented in the diagram below.

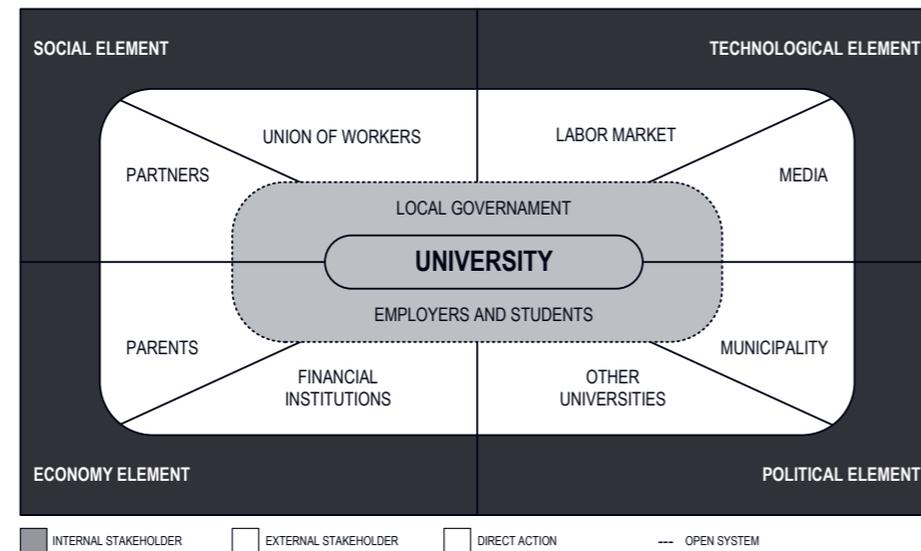**Enviromental elements for direct action:**
groups or individuals who have direct influence on objectives, structure and behaviour of the University of Zenica. In the centre of direct action are numerous stakeholders. They can be grouped into internal and external stakeholders.

Internal stakeholders
are individuals or groups, who make up the organisational structure and actively act on the goals, and functioning of the University of Zenica.
External stakeholders
include all organisa-tions, groups or in-dividuals outside the university which are in close interaction with the university or it's representatives.

Analysis of these groups should enable the recognition of their influence on the business environment including the integrated and broader (macro) environment trough the dioptre of individual organisations.

Enviromental elements for indirect action:
Components of external environment that affects the objective, structure and organisational functioning in an indirect way. They are the centre of indirect actions. They are also called PEST analysis elements:

- Political-legal (political – legal components)
- Economic (economic variables)
- Sociocultural (sociocultural variables)
- Technological (technology variable).

Potential threats, risks and limitations but also chances and opportunities are connected to them. Organisations like the Univesity of Zenica can rarely have significant influence on them.

The newly set up stakeholder forum will support the university management in the continu-ous process of creating, developing and up-keeping of competence based study programmes. It will also support the process of deepening connections to the economic environment in the area. It can be considered to be a central element of the universities development structure.

Phase 8

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