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## EMCOSU PROJECT

# Conclusions and Policy Considerations – draft

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University-business cooperation (UBC) is currently one of the key strategic challenges facing higher education in Europe. It holds implications for support for graduates' career success, international mobility, modernisation of curricula and the more practical orientation of higher education in general. In a survey among 700 enterprises and enterprise associations in Hungary, Bulgaria, Poland, Slovenia, Spain and other countries, the EMCOSU consortium sought answers to three interrelated questions: i) which are the most relevant modes and results of cooperation; ii) what determines cooperation; and iii) which are the future developmental needs? While at the moment many countries are developing university-business cooperation policies there is still room for improvement in terms of more efficient communication, legal support and better integration of various stakeholders. Although some economic sectors, such as information and communication technology, already have a long established tradition of cooperation with universities, others are still lagging behind due to national and disciplinary limitations. The most general factors that facilitate UBC are *common goals* in terms of mutual benefits, needs and aims, *commitment* of the 'right people' starting from the leadership and involving all levels, and *communication* that includes open dialogue and a shared understanding of the challenges<sup>1</sup>. The EMCOSU project's main findings are presented according to the following headings: diversification and mutual facilitation of modes of cooperation, the centrality of tacit elements, bureaucratic obstacles, the development of competencies, companies' expectations of universities, the importance of work experience, future surveys, the role of employers' associations, own consortium experiences, and future challenges.

### ***There are highly diverse forms of university-business cooperation, yet one form of cooperation facilitates another***

The EMCOSU project has identified and analysed various modes and best practices of university-business cooperation such as internships, cooperation with career centres, curriculum development, the establishment of quality standards for work placements in enterprises, entrepreneurial modules, research projects, start-up enterprises, alumni centres

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<sup>1</sup> See Rakovska, N., Pavlin, S., Melink, M. (2013): Assessment of cooperation between higher education institutions and employers in Europe – Conclusions. EMCOSU report on Workpackage 4.

etc. Other strategic areas of cooperation include research and technological development with the exchange of know-how and innovation, management- and governance-related collaborations such as the participation of companies on university boards and the establishment of common bodies and new training/entrepreneurship centres. The particularities of these modes are largely determined by the country-specific transition patterns of graduates from education to the labour market as well as differences in professional domains.

In general, companies report that among the various cooperation modes they are the most strongly engaged in activities related to student mobility and research and development. This is also consistent with the survey among higher education institutions<sup>2</sup>. One out of three companies report that they practise these activities to a large extent. As expected, stronger engagement in these activities is reported by large enterprises. This brings onto the policy agenda the call for special institutional support for small and medium enterprises. Moreover, the enterprises report that they most often participate in study, teaching and research activities and cooperate with an HEI's career offices. Common participation in company or higher education bodies is the least experienced form of participation. Similarly to the past survey among higher education institutions<sup>3</sup>, the survey among enterprises also finds that one form of UBC strengthens another: the existence of students' internships, for example, also opens the door to other modes of UBC like, for example, research and development, curriculum or adult learning. This means that for a company or higher education institution any single UBC mode is a good potential investment.

***Tacit aspects are more important facilitators of university-business cooperation than external ones: greater understanding is needed in this area***

The most important facilitators of UBC are mutual trust and commitment and shared motives: more than every second enterprise considers these two elements as important facilitators to a large extent. These two factors were also identified as the most important ones in the survey among higher education institutions<sup>4</sup>. Moreover, a considerable number of interviewees from enterprises stressed that fruitful cooperation depends on the mutual benefits of universities and enterprises, continuity and an understanding of each other's views. Some interviewees also say that universities and enterprises should be involved in establishing transparent and unambiguous legal regulation that ensures state support for research and development programmes. Other interviewees express their expectation of greater flexibility from higher education institutions.

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<sup>2</sup> Davey, T., Baaken, T., Galan Muros V. & Meerman A. (2011b): The State of European University-Business Cooperation. Final Report – Study on the cooperation between Higher Education Institutions and public and private organisations in Europe. Accessed: [http://ec.europa.eu/education/higher-education/doc/studies/munster\\_en.pdf](http://ec.europa.eu/education/higher-education/doc/studies/munster_en.pdf) (15.8.2013)

<sup>3</sup> See footnote 2

<sup>4</sup> See footnote 2

Still other interviewees warn that all parties involved in UBC should be clear that any such cooperation needs a monetary return, even though currently an important motive for cooperation is often the need to substitute reduced governmental funding, which cannot be the prime motive for UBC. UBC should always be seen as a strategic investment: “*UBC brings new ideas from business to the university as well as new ways for looking at things and processes, which helps them ensure greater efficiency...*” (from the EMCOSU interviews). While motives, interests and values represent the main drivers of UBC, at the same time they represent some of the key barriers.

***Bureaucratic obstacles should be removed because enterprises regard them as the biggest barrier to cooperation with universities***

The survey reveals that bureaucracy within or external to higher education institutions is regarded by enterprises as the biggest obstacle to cooperation – even bigger than the different expectations and time horizons of universities and business. Two out of three companies agree to a large extent that bureaucratic obstacles pose a relevant barrier to UBC. Somewhat surprisingly, the current financial crisis is perceived as the least important factor in cooperation.

Bureaucratic obstacles are particularly stressed in the case of small and medium enterprises. Interviewees, for example, complained about the huge amount of formal documents required for internships and research. They also find problematic the formal rules of UBC within EU-funded projects especially because UBC often appears as an additional activity to core business. One interviewee reports “*there is a strong trend to bureaucratise all the activities ... in some cases even the length and timing of the traineeships are prescribed on the institutional level but not dictated by the logic and goals of the programme... wider cooperation is often hampered by the need for multi-step decisions at different levels*” (from the EMCOSU interviews). Interviewees report that bureaucracy is not only a technical issue but reflects the rigidity of national laws in a state’s legal system related to higher education governance and intellectual property protection.

Another key barrier relates to the different time horizons between higher education institutions, motives and values. Several interviewees state that enterprises have a different way of thinking: people from the world of work are described as market-oriented while academics are primarily engaged in the creation and dissemination of science – as one representative of a Spanish company claims: “*The activity of research groups at universities and technology centres is (often) far from the needs of businesses. For companies the most important is the generation of patents for commercial exploitation, but the priority for universities is to publish the results of research... The work of researchers is measured by the number of publications they have, not by its practical outcome*” (from the EMCOSU interviews). A number of interviewees from enterprises complain that universities do not have an intrinsic need to change and that cooperation with the world of work is insufficiently represented as a success factor in academic achievements. Apparently, there is a need for greater institutional support to facilitate dialogue between the two spheres.

***The development of competencies is perceived as the key outcome of UBC, and the performance of business as the least important***

Students' skills relevant to labour market career development are perceived by employers as the most important outcome of university-business cooperation – four out of five companies agree to a large extent that this is an important outcome of UBC. The same factor was also identified as the most important outcome of UBC in the survey among higher education institutions. The EMCOSU project has also found that companies assess graduates' ability to acquire new knowledge very highly, but much less their ability to use time efficiently, perform well under pressure and facilitate mastery in their field of discipline. Employers also believe the performance of business is the least important outcome of UBC but they agree that it improves the innovative capacities of enterprises, which is perceived as the second most important outcome of UBC. Therefore, it can be understood that employers improve their innovative capacities through better skills of students and graduates. The interviewees observed that higher education graduates are significantly lacking in practical experience. However, in general the EMCOSU project has found that most forms of UBC were evaluated highly, and employers are well aware of the benefits of cooperation with universities: UBC... *“has direct tangible benefits for both the company and the student. What is important for the company is that students have the chance to acquire valuable new knowledge, which in turn can be used for the strategic development of the company”* (from the EMCOSU interviews); *“At the end of the traineeships, the students are usually integrated into the business. This is a beneficial policy for the company because the costs associated with recruitment are minimised. First, the training provided to the students is essential for the performance of their job when they are hired. In addition, risks are minimised because the company hires a person who already has had a background in the business for a long enough time to know if they are fit for the work”* (from the EMCOSU interviews).

The interviews indicate that higher education institutions will in most cases never provide better practical training than enterprises, and cooperation in this respect is mandatory. Some generic competencies related to socialisation into an occupation can only be developed with situation learning forms and in real-life work environments. At the same time, enterprises cannot become a substitute for the traditional learning environment because that form of learning provides better analytical thinking and other competencies important for the application of professional knowledge, identity and career mobility. However, when it comes to the question of skill development, there are differences in perceptions among higher education institutions and enterprises. Already earlier studies<sup>5</sup> stressed that higher education institutions find themselves as the key actor in the development of professional competencies, while employers consider that their own role is just as important as that of universities.

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<sup>5</sup> Pavlin, S. & Svetlik, I. (2009): Future Development of Higher Education. In Pavlin S. (ed.): Report on the Qualitative Analysis of Higher Education Institutions and Employers in Five Countries: Development of Competencies in the World of Work and Education. Hegesco Project. Ljubljana: University of Ljubljana. Access: [http://www.decowe.org/static/uploaded/htmlarea/finalreportshegesco/Qualitative\\_Analysis\\_of\\_HEIs\\_and\\_Employers\\_in\\_Five\\_Countries.pdf](http://www.decowe.org/static/uploaded/htmlarea/finalreportshegesco/Qualitative_Analysis_of_HEIs_and_Employers_in_Five_Countries.pdf) (30.8.2013)

***Companies do not agree with the idea that university-business cooperation should be limited to basic research or even remain separate from industry***

In the EMCOSU survey only a few enterprises report that UBC should be limited to basic research or even remain separate from industry. In general, two out of three companies claim UBC should be upgraded for application and commercial exploitation and one out of three that UBC is fundamentally important for research and development with some differences among countries. According to the EMCOSU survey, the opinions of enterprises on UBC are much more homogenous than is the case with universities. Other studies<sup>6</sup> among higher education institutions have found that academics hold a wider range of positions on UBC like, for example, the traditional academic who believes the academic sector and industry should be separate or those who believe that only some form of cooperation should exist. As one interviewee reported, *“I would like to emphasise the poor treatment of academic entrepreneurship as one of the most conspicuous negative indicators. Academic entrepreneurship is not perceived as something positive; moreover, there is a great amount of new legislation at the national level which is preventing its development”* (from the EMCOSU interviews).

***Enterprises believe higher education should increase the practical orientation of teaching and enhance traineeships and internships – both processes have been identified as the main strategic developmental path***

In contrast to the common belief that enterprises' foremost preference vis-à-vis higher education is the production of ready-made skills, the EMCOSU survey finds that this is not the case. Above all, employers believe universities should develop strategic cooperation with business, particularly the practical orientation of teaching, and enhance traineeships and internships. As found in the survey, in addition to the Internet, internships are reported to be the central recruitment mechanism used by three out of four large companies and approximately every second SME. This means they would like to develop a much more integral approach to training young graduates. In this context, it is important to stress that higher education institutions and employers perceive the centrality of practical learning very differently. An earlier study<sup>7</sup> reported that almost every second employer sees the practical orientation of study programmes as one of the most obvious developmental trends in higher education, yet this is only recognised by one out of ten academics. As one interviewee notes: *“In the past, universities created curricula by themselves, with no consideration of the practical needs of employers. They took into account what the students required plus what*

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<sup>6</sup> ...for example Lam, A. (2010): From 'Ivory Tower Traditionalists' to 'Entrepreneurial Scientists'? Academic Scientists in Fuzzy University-Industry Boundaries, *Social Studies of Science*, vol. 40 no. 2, pp. 307-340.

<sup>7</sup> Pavlin, S. & Svetlik, I. (2009): Future Development of Higher Education. In Pavlin S. (ed.): Report on the Qualitative Analysis of Higher Education Institutions and Employers in Five Countries: Development of Competencies in the World of Work and Education. Hegesco Project. Ljubljana: University of Ljubljana. Access: [http://www.decowe.org/static/uploaded/htmlarea/finalreportshegesco/Qualitative\\_Analysis\\_of\\_HEIs\\_and\\_Employers\\_in\\_Five\\_Countries.pdf](http://www.decowe.org/static/uploaded/htmlarea/finalreportshegesco/Qualitative_Analysis_of_HEIs_and_Employers_in_Five_Countries.pdf) (30.8.2013)

*capacities they had*” (from the EMCOSU interviews). In order to facilitate better cooperation, several interviewees stress that improvements should be made to the culture of UBC among researchers and policies developed “*to make UBC outcomes as important as research outcomes for career progress purposes*” (from the EMCOSU interviews). Hence, big challenges are entailed in making further improvements to the development of the professional relevance of higher education. Based on the EMCOSU survey, as well as the earlier DEHEMS project<sup>8</sup>, employers are calling for the recognition of work experience in terms of traineeships and internships. An interviewee even suggests that one of the priorities in the academic community is to create lifelong learning programmes which are needed by industry. “*The current situation is that industry is more oriented to different industrial certificates and academic institutions offer broad lifelong learning programmes. It is the responsibility of academic institutions to create and offer lifelong learning programmes that would be recognised by industry*” (from the EMCOSU interviews).

### ***Further work***

#### *Considering future comparative surveys on similarities and differences among a larger group of countries*

Among other factors, the similarities and differences among countries are rooted in historical traditions of relations between education and employers, including established human resources and training practices and general qualification and legal frameworks. The EMCOSU project has given most attention to four EU transition countries – Bulgaria, Hungary, Poland and Slovenia – and Spain (“EMCOSU countries”) but has also considered other EU countries, particularly Croatia, Germany, France, Czech Republic, Slovakia, Italy, ex-Yugoslav countries, Sweden and Russia. The number of cases in the other countries was significantly lower than with the EMCOSU countries yet the consortium was able to develop a hypothesis on how certain countries can be different from all others. For example, it presumed that in Croatia, and the Czech and Slovak Republics research and development is less developed compared to other UBC factors relative to other countries under observation. Bureaucracy is not such a concern in Scandinavian countries. Italian companies do not consider that their universities need a practical orientation as much as elsewhere. The list of these insights stemming from different EU countries is long and requires further investigation.

#### *Employers’ associations have the potential to become stronger promoters of UBC*

The EMCOSU project shows that employers’ associations in some countries hold relatively limited systematic knowledge regarding UBC. However, at the same time the results indicate

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<sup>8</sup> Pavlin, S. (ed.) (2012): Employability of graduates and higher education management systems: Conference proceedings, Vienna and Ljubljana; September 2011 and 2012 [Ljubljana]: Faculty of Social Sciences, cop. 2012. [http://www.dehems-project.eu/static/uploaded/files/files/deliverables/Conference\\_Proceedings\\_Part\\_1\\_-\\_Vienna.pdf](http://www.dehems-project.eu/static/uploaded/files/files/deliverables/Conference_Proceedings_Part_1_-_Vienna.pdf).

that the perspective of employers' associations on UBC does not vary much from the employers' side. Employers' associations also cooperate in the mobility of students and research and development activities. Similarly to employers, they find bureaucracy and different motives and values to be the key barriers to cooperation and also complain that universities have a different perception of time horizons. In general, they believe that UBC should be oriented towards commercialisation and practical application. Based on the outcomes of the EMCOSU project, employers' associations have good operational potential to become supporters of UBC – particularly in representing the interests of SMEs. If the political idea is that employers are expected to become a driver of UBC that is equal to universities, then special attention and support would have to be provided to support special bodies that would include representatives of universities, employers and associations.

*The EMCOSU project is an excellent example of raising awareness of university-business cooperation among employers*

The EMCOSU partners believe the project is an example of a UBC success story. In two and a half years, all of the partners have appreciated working together in a European partnership: although the findings indicate that universities and enterprises are often two separate worlds, the support the consortium received from the European community has enabled the development of team building and strong mutual respect among the members. University representatives have appreciated the excellent responsiveness and on-time delivery of the deliverables and process execution of partners from the world of work, while the employers' representatives have appreciated the research qualities of their partners. The consortium has learned to understand intercultural and interorganisational diversity, and also the particular expertise of individual members in terms of discipline-specific knowledge, methodological skills and efficiency at meetings and the overall approach.

*Future challenges*

First, it would be very valuable to examine how mutual trust among employers and academics is developed: this process contains many other elements that have been investigated in the EMCOSU project such as national legislation, governance, barriers to UBC cooperation, or outcomes. Second, much of the attention has recently been placed on case studies of large multinational companies and very well-known universities, but UBC cooperation with SMEs and NGOs is not so much promoted. It would be especially valuable to establish common bodies and institutions that would facilitate communication among both parties. This is particularly important because the emerging practical orientation of higher education is increasingly leading to the hybridisation of academic roles and the nature of academic certificates. In this respect, the consortium has proposed guidelines for the development and integration of new policy tools.