



I-SEEMob: Inter-sectoral Mobility of Researchers in South-Eastern Europe

- Mapping exercise on the current state of affairs regarding industrial R&D representation in SEE

The main goal of the I-SEEMob project is to contribute to the enhancement of the career development of R&D personnel in the European Research Area by examining the existing legal and research policy gaps hampering the inter-sectoral mobility of R&D personnel in the South-Eastern European countries participating in the consortium and, accordingly, provide recommendations and guidelines to the respective governments so as to raise the remaining obstacles and promote inter-sectoral mobility and the career development of researchers.

From the early beginning of development of the I-SEEMob proposal the subject matter of analysis was to examine the existing barriers on inter-sectoral mobility that hinder the career development of researchers. One of the main instruments working towards this objective was the mapping exercise, performed in order to identify the situation prevailing in the South-Eastern European countries of the consortium in terms of a) industrial R&D representation, b) industry-academia cooperation level, c) industry's respective needs for R&D personnel and d) existing support tools for inter-sectoral mobility.

The first exercise mapped the number of industries with R&D departments, operating in South-Eastern Europe (local industries and/or multinational corporations). For this purpose, the partners chose priority sectors on which they focused their efforts:

Table 1: Priority sectors chosen for the mapping exercise, by country

Country	Priority Sectors
BA	All
BG	All
GR	<ul style="list-style-type: none"> - ICT - Food industry - Pharmaceutical industry - Chemical industry - Metallurgy
HR	All
MK	<ul style="list-style-type: none"> - Biotech - Pharmaceutical industry - Metallurgy - Energy - ICT - Civil engineering
RO	<ul style="list-style-type: none"> - ICT - Agriculture - Biotech - Health and Pharma



	- Security and Defence
RS	- ICT - Energy - Biotech - Materials - Civil engineering
TR	- Biotech - Electronics - Materials - ICT

The result of this exercise, carried out through desk research, personal communication and communication with local authorities, is a database of over 500 contacts of industry performing R&D in South-Eastern Europe, collected in accordance with privacy rules and regulations. The database is available on the project's website.

The second mapping exercise collected information on the additional skills and competences that university graduates and researchers need to acquire in order to be more “attractive” to employers in the industrial sector. Furthermore, it examined the largely stressed culture of movement from academia to industry. This was performed by a survey directed to the industry contacts collected in the previous exercise, as well as to existing contacts in the academic sector.

In total, there were 187 responses by industry representatives and 497 replies from universities and research institutes. Companies of all sizes were equally represented, with presence from almost all industry sectors, whereas in academia there was a predominance of respondents from public universities, but again with representation of all academic fields.

Due to a large variance in responses, it was not possible to get a reliable estimate of the extent to which companies cooperate with external researchers from other companies and/or public sector organisations. The respondents from academia mostly find that their organisations cooperate with companies to a low extent and find that the academia-industry collaboration is not at a desirable level in their country. Nevertheless, when they do cooperate, the companies report high levels of satisfaction with the cooperation, and the researchers report a mostly positive influence of inter-sectoral mobility on their career.

With the exception of Greece (where the order is reversed), surveyed companies cooperate in research mostly with universities, close second being other companies. Companies are mostly motivated to such cooperation by a need to solve a specific problem, whereas individual researchers from academia are mostly motivated to cooperate with industry by the possibility to achieve an additional income.

On average, the respondents from industry see their companies as having a long-term vision, placing importance on innovation and new technologies, with adequate human resources, but relatively low financial resources. To a relatively small extent they see research institutions as unable to reply to



their company's specific needs and as organisations dealing in abstract issues. On the other hand, the overall results indicate that the respondents from academia see industry mostly as short-term oriented, without appreciation for academic research. At the same time, the replies indicate that the academia respondents believe they possess adequate skills and find industry's research needs interesting.

Across all countries, and more importantly – from *both* target groups, most respondents consider the industry as the one who should take the lead for a better inter-sectoral cooperation. Simultaneously, any governmental incentives to promote inter-sectoral cooperation are generally considered positive, but most of all tax reliefs to companies for investments in joint research projects.

Surveyed companies consider inadequate human resources as the most important unfulfilled prerequisite for innovation activities. Innovative thinking, communication skills and knowledge of entrepreneurial issues are considered as most important additional skills that researchers need, however both surveyed groups most often find that researchers lack especially managerial and entrepreneurial skills. Finally, the respondents from both surveyed groups on average have a low opinion of the education that graduates receive in the current education system, considering it outdated and impractical.

These results will form a part of the basis for the project's final outcome: recommendations and guidelines to the respective governments so as to raise the remaining obstacles and promote inter-sectoral mobility and the career development of researchers.