

Preliminary Results of the HEGESCO Project – Large Scale Survey

Main Conclusions

In general, European higher education graduates enjoy a rather smooth transition to the world of work. Most graduates find work within a few months of graduation, and five years after graduation most are employed in jobs that fit well with their qualifications. Graduates typically work fulltime, enjoy a high degree of job security and earn good wages, and many report good to very good career prospects in their current job. It is therefore not surprising that a strong majority of European graduates are satisfied with their current work. Of course, there are countries and fields of study that do less well, but the main conclusion that can be drawn from this study is that the new and candidate member states (NCMS) cannot be placed as a uniform block into this category. In fact, the differences between the individual NCMS are in most cases more striking than their differences with respect to the southern and northern European REFLEX countries. Different NCMS can be found across the full spectrum of countries according to a range of dimensions, including labour market entry, early career mobility, match between qualifications and work and unemployment experience. On a general typology of countries, Estonia forms together with Norway, Finland, the Netherlands and Portugal a group of countries with generally a short unemployment duration, and a low incidence of unemployment, underemployment, overeducation and underutilization of skills. The same analysis places Turkey together with Spain as the countries most likely to experience problems on these dimensions.

Key factors contributing to a successful transition from higher education to the labour market include the acquisition of study-related work experience during higher education and strong links between HE institutions and the labour market. Experience abroad is also positively related to wages in several NCMS, as well as in northern European REFLEX countries. Good grades also appear to reduce search duration and increase wages in several NCMS.

The work environment encountered by graduates can be described as dynamic, innovative, competitive, quality-oriented, and often international. As many as half of all graduates across all countries/regions have undergone a reorganization within the last 12 months, and a similar proportion work in organizations that can be described as innovative. The vast majority of graduates working in the private sector across all countries report working in an organization experiencing high or very high levels of competition. Arguably more remarkable is the fact that around two in every five graduates working in the public sector also report high levels of competition. Competition by quality rather than price prevails across all countries/regions. Many graduates work in organizations with an international scope of operations. A large majority of graduates in all countries/regions work as professionals, but in comparison with graduates in northern and southern European REFLEX countries, those in the NCMS work relatively more often as managers. Graduates play an important role as source of professional knowledge in their organizations, either directly by providing advice to colleagues, or indirectly through network ties to others outside the organization.

In the world of work, graduates are expected to be competent in a broad range of areas, comprising both field-specific and generic skills, as well as technical abilities in the areas of computer and internet usage. The competences that are most often required at a high to very high level in tertiary-level jobs held by graduates in the NCMS are the ability to use computers and the internet, the ability to use time efficiently, and the ability to work productively with others. Most graduates are highly competent in these areas, particularly with respect to the ability to use computers and the internet, but there are some shortages, of these and other competences, notably the mastery of one's own field or discipline and the ability to perform well under pressure. There are also competences for which a relatively large number of graduates report a surplus (a significantly higher own level than is required in their work). The main surpluses are found for the competences ability to write and speak in a foreign language, the willingness to question one's own and others' ideas, and the ability to use computers and the internet (the latter despite being the competence most often required at a high level: most graduates possess sufficient skills in this area for their work). Foreign language skills are notable in being relatively often in shortage as well as in surplus, which seems to indicate that – at least with respect to this competence – there is a misallocation of graduates across jobs.

There is a strong relation between certain characteristics of organizations and jobs on one hand and competences graduates are required to use on the other. Required mastery of one's own field or discipline is positively related to innovation activities in the organization in which graduates work, and to the role graduates play both as professionals and managers in those organizations. Graduates working in a competitive environment are expected to be good time-managers, to be able to handle pressure and to work well in a team. Teamworking is also required more in innovative organizations, and in jobs with a strong professional character. Innovative organizations are also more likely to require strong computer and internet skills. In general, both the managerial and professional character of the job showed a strong effect on utilization of knowledge and skills, as did the extent to which the graduate was personally involved in introducing innovations.

Although graduates are generally quite positive when it comes to the extent to which they feel higher education has prepared them for the world of work, it is striking that they were even more positive about the role higher education played in their personal development. Equally remarkable was the poor opinion most graduates have of higher education as a contributor to their entrepreneurial skills. This even applied to fields of study that cater heavily to the private sector, such as business and engineering studies. In general there was little difference between the NCMS and northern and southern European REFLEX countries in any of these assessments. Although a majority of graduates in most countries reported that they would choose the same study programme again at the same HE institute if they were in a position to choose again, this percentage is considerably lower in general in the NCMS than in the northern and southern European REFLEX countries. Especially Turkish graduates would often be reluctant to repeat their initial choice if they were free to choose again.

Countries also share much in common in terms of the main characteristics and experiences graduates reported with respect to their higher education programme and of their acquired competences. According to the assessment of graduates, higher education in Europe is quite demanding, with a broad focus but relatively little freedom offered to students to compose their own programme. Despite the increasing interest in more innovative methods in recent years, European higher education is at heart still rather traditional, with strong emphasis on classroom-style teaching. Nonetheless, graduates are more likely than not to have acquired some form of hands-on experience outside the classroom setting while in higher education. The most common form of experience is a work placement or internship, but other work experience is also often seen, and experience abroad and positions held in student organizations and the like are not uncommon. To be sure, there are some deep-rooted differences between higher education in different countries in terms of content, modes of teaching and learning, links to the labour market and such. However, there is little or no systematic difference between the NCMS and REFLEX countries in these respects. Furthermore, although certain aspects of higher education show significant effects on both competences and labour market outcomes, differences in these aspects across countries do not appear to account for country-level differences in outcomes. Demanding HE programmes appear to foster all kinds of competences, particularly mastery of one's own field or discipline. The reported level of mastery of one's own field or discipline was also significantly related to a vocational orientation of the study programme and the acquisition of relevant work experience during higher education, and depends more on practical than theoretical modes of teaching and learning. The latter finding suggests that disciplinary knowledge is more practical than academic in most countries. Group learning promotes both computer and teamworking skills.

Summary of Key Results

Higher Education Characteristics and Experiences

Programme characteristics

In responding to a set of six possible descriptions of their study programme, graduates in most countries placed the strongest emphasis on the descriptions 'was generally regarded as demanding' and 'had a broad focus'. The description 'there was freedom in composing your own programme' was felt to apply least to the study programme, with 'employers are familiar with the content of the programme', 'was vocationally oriented' and 'was academically prestigious' occupying an intermediate position. In general, graduates in the NCMS were similar to their peers in northern and southern European REFLEX countries in the pattern of reporting on these programme characteristics, but some individual NCMS countries showed quite distinctive responses to some items. Estonian and Polish graduates were least inclined to describe their programme as demanding. According to Turkish graduates, employers in their country are not very familiar with the content of HE study programmes. The least freedom to compose one's own study programme was reported in Hungary. Perhaps related to this, Hungarian graduates were most inclined to describe their study programme as being vocationally oriented. In contrast, few Estonian graduates felt that their study programme was vocational in its orientation.

Modes of teaching and learning

Of 11 modes of teaching and learning presented to the graduates, the strongest emphasis in the study programme were reported for 'lectures', 'theories and paradigms' and 'the teacher as main source of information'. This suggests that, despite the increasing interest in more innovative methods in recent years, European higher education is at heart still rather traditional. In fact, the aspects least emphasized by graduates in the NCMS were 'project and/or problem-based learning', 'internships, work placement' and 'participation in research projects'. That is not to say students are relegated to a strictly passive role in higher education: quite a strong emphasis was reported on aspects such as 'group assignments' and 'oral presentations', and 'written assignments' appear to be preferred above 'multiple choice exams' as an assessment method. In general, the NCMS resembled northern and southern European REFLEX countries in the pattern of answers, although the emphasis on innovative and/or student-centred modes of teaching and learning is a little weaker in the NCMS and that on more traditional and/or passive modes a little stronger. Again, some NCMS countries show quite distinctive patterns of answers to some items, particularly Lithuania, which is even more traditional than the other NCMS.

Study behavior

Compared to graduates in northern and southern European REFLEX countries, graduates in the NCMS report low study hours (below 30 on average in all NCMS except Lithuania, and as low as 22 in Turkey and 23 in Slovenia). Despite this, graduates in these countries do not appear to see themselves as inherently less motivated towards study than their peers in northern and southern Europe. Mean responses to the statements 'I did extra work above what was required to pass my exams' and 'I strived for the highest possible marks' were broadly similar in all three regions.

Experiences during higher education

Despite the fact that European graduates felt that relatively little emphasis was placed on participation in work placements or internships as a mode of learning, this is most commonly reported form of extramural experience acquired during higher education in most countries. In general, this form of experience is much more common in the NCMS than in northern and southern European REFLEX countries, but there are large differences between countries. Whereas more than 85% of Hungarian graduates and all but a handful of Turkish graduates reported that they had participated in a work placement or internship during HE, less than a third of Czech graduates did so. Other work experience was also quite common, with somewhat more graduates reporting experience that was related to the study programme than experience that was not related. Here as well, strong differences can be seen between countries, with Slovenian, Estonian, Czech and northern European graduates reporting high levels of both forms of experience, and Hungarian, Polish and especially Turkish graduates reporting low levels. Experience abroad and positions held in student or other voluntary organizations were generally less common, and more prevalent in northern European REFLEX countries than in other regions, but Polish, Lithuanian and Czech graduates were also relatively likely to report having been abroad during HE, and a relatively high percentage of Turkish graduates held positions in voluntary organizations during HE.

Transition and Early Career

Transition from higher education to work

Most graduates start looking for work around or after graduation. The main search channels graduates use to find work are social networks (especially in the NCMS), contacting employers on own initiative and answering newspaper advertisements. Most graduates find work quite quickly after graduation (Turkey is the major exception, and many Hungarian and Slovenian graduates also take longer). The countries with the highest percentage of long search durations (Turkey and Spain) show the lowest percentage of graduates who started looking before graduation, although it can't be concluded with any certainty that the relation is a causal one. There is no convincing evidence that the search channels used affect search duration.

An analysis of possible determinants of search duration showed that study-related work experience and strong links between HE institutes and the labour market are associated with shorter search duration in most countries. Good grades appear to reduce search duration in several NCMS, as does having a father who attended HE.

Early career mobility

Czech graduates show the most stable early career pattern in terms of changes of employer and unemployment, and Turkish and Spanish graduates the least stable. Estonia, Lithuania and several northern European countries show a 'job-hopping' pattern, combining relatively high mobility between employers with a low total unemployment. Slovenian graduates by contrast rarely change employers, but nonetheless experience quite lengthy unemployment spells.

Current labour force status

The majority of graduates participate in the labour force. Unemployment is generally low in the NCMS (except Hungary and especially Turkey), as well as in northern European REFLEX countries. Most graduates work full-time, and around

half work more than 40 hours per week on average. The percentage working more than 40 hours per week is especially high in Turkey. Around three-quarters of working graduates have jobs matching their own level and field of education. This percentage is somewhat higher in Slovenia, and lower in Lithuania, Turkey and Hungary. The percentage of good matches increases between the first and current jobs.

Quality of employment

Hourly wages in most NCMS are lower on average than those in northern European and even southern European REFLEX countries. A notable exception is Slovenia, where average wages lie between those in northern and southern European countries. Interestingly, graduates in the NCMS are more optimistic on average about their career prospects than graduates in southern and particularly northern European REFLEX countries. The Czech Republic has a particularly high percentage of graduates reporting that their job offers good career prospects, twice as high as Hungary, the country in which graduates are least optimistic in this respect. Although graduates in several countries (notably Poland, Slovenia and southern European REFLEX countries) started out in temporary jobs, five years after graduation the great majority was working in jobs with a permanent contract. Slight exceptions to this rule are Turkey and southern European REFLEX countries, where a little more than a quarter of working graduates still had a temporary contract at the time of the survey. In all countries, those who started out in a temporary job were considerably less likely to have a permanent contract five years later than those who started out in a permanent job. Around two-thirds of graduates in the NCMS report high to very high levels of job satisfaction, a slightly higher percentage than southern European REFLEX graduates and somewhat lower than northern European REFLEX graduates. The lowest level of job satisfaction is found in Turkey, where only half the graduates reported high to very high job satisfaction.

In an analysis of determinants of hourly wages in the current job, study-related work experience is associated with higher wages in most countries. Experience abroad is also positively related to wages in several NCMS, as well as in northern European REFLEX countries. Although a strong vocational orientation of the study programme improved graduates' chances of finding work quickly after graduation, it is associated with lower wages in several NCMS. Good grades are positively related to wages in several NCMS.

To capture more subjective elements of job quality, a similar analysis was conducted using job satisfaction as variable to be predicted. Familiarity of employers with the study programme is associated with significantly higher levels of job satisfaction in all countries, and vocational orientation also appears to improve the chances of job satisfaction in several countries. Relevant work experience during higher education also seems to promote later job satisfaction in several NCMS, as well as in northern and southern European REFLEX countries.

Evaluation of study programme as basis for work and life in general

When presented with six areas for which HE could conceivably form a good basis, graduates were most positive about the role higher education played in their personal development. The least positive assessment was in the area of entrepreneurial skills, with the assessment of the role of higher education as a basis for starting work, further learning on the job, performing current work tasks and future career development occupying an intermediate position. In general there was little difference between the NCMS and northern and southern European REFLEX countries in any of these assessments.

Although a majority of graduates in most countries reported that they would choose the same study programme again at the same HE institute if they were in a position to choose again, this percentage is considerably lower in general in the NCMS than in the northern and southern European REFLEX countries. Especially Turkish graduates, and to a lesser extent Estonian and Lithuanian graduates, would often be reluctant to repeat their initial choice if they were free to choose again. By contrast, Czech graduates would be no less inclined than their northern and southern European counterparts to make the same choice again.

Required and Acquired Competences

The competences that are most often required at a high to very high level in tertiary-level jobs held by graduates in the NCMS are the ability to use computers and the internet, the ability to use time efficiently and the ability to work productively with others. The ability to work productively with others, and particularly the ability to use computers and the internet are also possessed at this high level by many graduates. Other competences, notably the mastery of one's own field or discipline and the ability to perform well under pressure, are somewhat less often required at a high to very high level, but because less graduates possess these competences at that level, they are also often in shortage in the graduate population. The main surpluses are found for the competences ability to write and speak in a foreign language, the willingness to question one's own and others' ideas, and the ability to use computers and the internet (the latter despite being the competence most often required at a high level: most graduates possess sufficient skills in this area for their work). Foreign language skills are notable in being relatively often in shortage as well as in surplus.

Relation between higher education and competence development

In an attempt to identify characteristics of higher education that promote the development of relevant competences, a series of analyses was conducted in which the effect of various characteristics on graduates' own level on five selected competences was estimated. These were the competences which were most often required at a high or very high level in the NCMS, and/or which were most often in shortage in those countries: the ability to use computers or internet, the ability to use time efficiently, the ability to work productively with others, the ability to perform well under pressure, and the mastery of one's own field or discipline.

Effect of programme characteristics

In most countries, the degree to which graduates reported that their study programme was generally regarded as demanding was at least moderately – and in case of mastery of one's own field or discipline even strongly – related to own level of competences. Vocational orientation of the study programme was also strongly related to the reported level of mastery of one's own field or discipline, although not to the other four selected competences. Other programme characteristics showed not systematically significant effects in the NCMS, although some effects were observed in northern and southern European REFLEX countries.

Effect of modes of teaching and learning

There were no modes of teaching and learning which appeared to enhance a broad range of competences, but some clear effects on particular competences was observed. Computer skills were most clearly related to an emphasis on group assignments and written assignments, both of which presumably involve using computers and or the internet in an active manner. More puzzling is the finding that in at least some NCMS an emphasis on lectures and on theories and theories and paradigms also promote computer/internet skills. As one might expect, there was a clear relation between group assignments and the ability to work productively with others, and this competence was also positively influenced by emphasis on oral presentations in the study programme. The mastery of one's own field or discipline was most clearly related to emphasis on facts and practical knowledge and on written assignments, but in most countries not by emphasis on theories and paradigms. It seems that disciplinary knowledge is more practical than academic in most countries. Given the attention that has been paid to active, student-centred forms of education in recent years, it was somewhat surprising that there was little or no systematic effect of such modes of teaching and learning – or indeed any modes of teaching and learning – on the ability to use time efficiently or the ability to perform well under pressure.

Effect of study behavior and performance

Study hours show little systematic relation with acquired competences across most countries. This is not altogether surprising, since some students may need to put in long study hours just to achieve a passing grade. More interesting in this respect is the subjective study motivation of students, and indeed we observe some effects of indicators of such motivation. In particular, graduates who indicated that they strived for the highest possible marks during higher education score higher on mastery of their own field or discipline, as well as on the ability to use time efficiently. In the NCMS, a more intrinsic form of study motivation – indicated by the willingness to do more work than needed to pass exams – was also positively related to these two competences. Interestingly, high grades – the presumable immediate result of such efforts – showed little effect on competences in the NCMS, although it was related to mastery of one's own field or discipline in northern European REFLEX countries.

Effect of experiences during higher education

Study-related work experience during higher education appears to be related to competence development in most countries. This applies especially to mastery of one's own field or discipline and the ability to perform well under pressure. Interestingly, non study-related work experience was related to competence development in the NCMS but not in northern and southern European REFLEX countries. Effects of such experience were found in most NCMS on the development of computer and internet skills and the ability to work productively with others, and in several countries on the ability to perform under pressure. Time spent abroad during higher education had a significant effect on the ability to perform under pressure in several NCMS. There were few systematic effects of work placements/internships or of positions held in student or other voluntary organizations during higher education.

The World of Graduates' Employment

Economic sector and occupation

In general graduates in the NCMS, like their counterparts in northern European REFLEX countries, are much more likely to work in public services and administration than in either industry and agriculture or private services (in southern Europe, the proportion working in public and private services is roughly equal). In the NCMS the concentration in public services

is strongest in Hungary and Slovenia, while a relatively high proportion of Czech and Turkish graduates are employed in industry and agriculture (although this proportion is still lower than both private and public services in these countries as well).

A large majority of graduates in all countries work as professionals. However, in comparison with graduates in northern and southern European REFLEX countries, those in the NCMS work relatively often as managers. This applies especially in Estonia, while by contrast the percentage of professionals in the Czech Republic and Hungary is comparable to that in southern and northern Europe. Among those working as professionals, scientists, engineers and health professionals are somewhat underrepresented in the NCMS and teaching and other professionals somewhat overrepresented. In general across all countries, the highest number of professionals per manager is found in public services and administration.

Organization size and scope

Whereas around half of the graduates from northern and southern European REFLEX countries peers work in large organizations, less than four in ten graduates in the NCMS do so. Many graduates across all countries work in organizations with an international scope of operations. Of the NCMS, Estonia is the most strongly international in scope. Many graduates also work in organizations with a national scope of operations, especially in the NCMS and in southern European REFLEX countries.

Market conditions and organizations' response

Across all countries, around four in every five graduates working in the private sector report working in an organization experiencing high or very high levels of competition. Competition is however not just a feature of the private sector: almost half of graduates working in the public sector across all countries report such strong competition. Competition by quality rather than price prevails across all countries/regions, and demand is generally experienced as being quite stable. A surprising proportion of graduates in all countries/regions have undergone a reorganization within the last 12 months. Across all sectors of the economy, reorganizations were less common in the NCMS than in northern and southern European REFLEX countries. Slovenia forms an exception to this rule, with 60% of graduates working in industry and agriculture, and only a slightly lower percentage in private services, reporting having experienced a recent reorganization.

Innovation

A high proportion of graduates across all countries/regions work in organizations that can be described as innovative. Around four in ten graduates reported that their organization was at the forefront of innovations. In general, graduates were slightly more likely to report that their organization was involved in innovation in terms of product or service than in terms of technology, tools or instruments, but this difference was most pronounced in northern Europe, rather small in NCMS and even slightly reversed in southern Europe.

Graduates' role in their organization

On average there is little difference between NCMS and REFLEX in setting goals, but strong country differences. Estonia shows a relatively high level of setting organizational and own goals, and Hungary a much lower. Turkish graduates report a high level on setting organizational goals, but a low level on setting own goals.

Five years after graduation, graduates play an important role as source of professional knowledge in their organizations, either directly by providing advice to colleagues, or indirectly through network ties to others outside the organization. Turkish graduates stand out strongly in both respects, while Hungarian graduates score somewhat lower than graduates from other countries/regions.

Relation between work characteristics and demands made on graduates

Required competences

There is a strong relation between certain characteristics of organizations and jobs on one hand and competences graduates are required to use on the other. At the level of organizations, the main factors related to the required level mastery of one's own field or discipline are the extent to which the organization is involved in innovation activities, and the degree of competition. At the level of jobs, both the professional and managerial character of jobs are strongly related to the required level of this competence.

As one might expect, the degree of competition an organization is faced with has a strong effect on the required level of ability to perform well under pressure and the ability to use time efficiently. The latter competence also seems to be quite strongly influenced by the managerial character of jobs.

The ability to work productively with others is required more in organizations facing strong competition and/or involved in innovation activities, and in jobs with a strong professional character. Only in Lithuania, Slovenia and northern Europe is there also an effect of managerial character of jobs.

The involvement of the organization in innovations is most strongly related to the required ability to use computers and

the internet, with in some countries an effect of competition also quite prominent. Of the job characteristics looked at, the managerial character of the job was most strongly related to this competence (although a somewhat unexpected negative effect of this aspect turned up in Turkey).

Utilization of knowledge and skills

Across the board, utilization of knowledge and skills was more strongly influenced by job characteristics than by organizational characteristics. Both the managerial and professional character of the job showed a strong effect on utilization, as did the extent to which the graduate was personally involved in introducing innovations. In some countries effects were also seen for the organizational characteristics competition based on quality rather than price, stability of demand and involvement of the organization in innovation activities, but these effects were much weaker than those of job characteristics.

Knowledge management activities

For the Hegesco countries, a number of knowledge management activities were presented to working graduates, who were requested to indicate their approximate time spent on these activities. After some clustering, the activities that came most strongly to the fore were social learning and data management activities, with the latter being especially prominent in Turkey. Codification activities were mentioned by a significant proportion of graduates. Turkey was also the only country in which physical work activities were strongly mentioned, and information-process learning (or internalization) was only mentioned by a small proportion of graduates in all countries.

When these indicators are added as potential determinants of utilization of human capital, no strong effects appear across countries. Effects found are usually confined to a single country, and are sometimes negative. It is difficult to draw any firm conclusions from this at this stage.

Country Patterns

In looking at the results of the description and analysis of higher education, outcomes and competences, the initial impression is that the NCMS resist any simple attempt at clustering together as a group of countries that can be compared to northern and southern European REFLEX countries. Collectively, these countries resemble northern Europe on some indicators, southern Europe on other indicators, both on yet other indicators and occasionally neither. More importantly, as individual countries, they frequently differ as much or more from each other than they do from northern and southern Europe. To be fair, this will always be the case to some extent when individual countries are compared to existing clusters, since in clusters there is a tendency for the hard edges to be removed as everything converges on an overall mean. Despite this, the differences between northern and southern Europe appear consistently throughout the report, and form a more or less coherent and comprehensible picture. In order to shed more light on how the NCMS fit into this picture, if indeed they do so at all, a series of cluster analyses were conducted based on various dimensions of labour market entry and early graduate careers.

Labour market entry

On the first dimension, that of labour market entry, a distinction can be drawn between countries for which the entry has been hard and slow (Turkey, Spain and Hungary) at one extreme, and countries for which the entry has been easy and fast (Slovenia, Finland, Lithuania and Estonia) at the other extreme. We see already here that NCMS appear at opposite ends of the continuum.

Match between qualification and job

The second dimension contrasts countries with a poor match between qualifications and current job to countries where the match is very good. Again, NCMS countries turn up at both the positive end (Poland, Estonia, together with Austria, France and Germany) and the negative end (Turkey and Hungary, together with Italy, United Kingdom and Spain) of the continuum.

Mobility out of first job

A dimension which has no a priori label of 'good' or 'bad' is that of mobility out of first job. Again, we see NCMS at both extremes, with Turkey (together with Spain, the United Kingdom and Norway) show the most mobility, and Slovenia and the Czech Republic (together with Italy and Germany) belonging to the group of countries with the least mobility out of the first job.

Unemployment experience

There are strong differences between countries on the next dimension, unemployment experience, and again we see NCMS at both ends of the continuum. Spain and Turkey form a cluster as countries in which graduates experienced many unemployment spells and were unemployed for a long time, while in the Netherlands, Estonia and Norway, graduates were rarely unemployed, and if they were it was not for long.

General typology

In order to see whether any general clustering was possible for labour market entry and early career, a cluster analysis was run including several of these dimensions simultaneously. This clustering was based on initial search duration, incidence of unemployment in the first five years, underemployment in terms of occupational level, overeducation, and underutilization of skills. This analysis yielded four distinct clusters. The 'best' group of countries, comprising Norway, Estonia, Finland, the Netherlands and Portugal, consists of countries with generally a short unemployment duration, low incidence of unemployment, and little underemployment, overeducation or underutilization (although Portugal forms an exception with respect to the former two indicators, the Netherlands and Finland with respect to underemployment and the Netherlands with respect to underutilization). The second large cluster (Austria, France, Germany, Belgium, the Czech Republic, Poland, Slovenia and Lithuania) comprises countries which also generally experience a fast entry to the labour market, but with somewhat higher incidence of unemployment during the early career and more underutilization of skills. The third group of Italy, United Kingdom and Hungary comprises countries in which a larger proportion of graduates has experienced a long search duration and/or has been unemployed in the early career, and with more serious problem in the match between qualifications and work. The final cluster consists of just Turkey and Spain, which experience above average problems on every dimension.

The **HEGESCO** (short for **Higher Education as a Generator of Strategic Competences**) project addresses the question of the contribution of Higher Education Systems to competence development. It seeks evidence on the competences needed for successful entry into the labour market, better employability and active citizenship. Moreover, it explores how these competences are related to characteristics of jobs and firms.

The HEGESCO project includes a quantitative survey among graduates, conducted 4-5 years after graduation, in Lithuania, Poland, Hungary, Slovenia and Turkey. This large-scale survey is based on the existing survey of the REFLEX network, which already conducted a comparable survey in 16 other (mainly EU) countries. In addition to the survey among graduates, complementary qualitative surveys were carried out among employers and representatives from higher education institutions. The results of the three surveys (graduates, HE institutions and employers) are the main input for the empirically based development of recommendations for instruments and strategies needed for modernising and organising HE curricula.

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All information on requesting the data bases from the Hegesco project are available at
<http://www.hegesco.org>;
for the large scale survey of the Reflex project see <http://www.fdewb.unimaas.nl/roa/reflex/>.