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**HELENA**  
Higher Education Leading to  
ENgineering And scientific careers



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***Deliverable D4.1***  
***Analysis of country specific case studies***

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## Executive Summary

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This report presents all national reports for work package 4 from the EU-project “HELENA – Higher Education Leading to ENgineering And scientific careers”. The project is carried out within the European Union’s 7th framework programme “Science in Society” (<http://www.fp7-helena.org/>) under the coordination of Šiauliai University (Lithuania). Partners from Austria (Alpen-Adria-Universität Klagenfurt), France (Ecole Normale Supérieure de Cachan and ECEPIE – Égalité des Chances dans les Études et la Profession d’Ingénieur en Europe), Serbia (Mihailo Pupin Institute), Spain (Fundacion TECNALIA LABEIN), and the United Kingdom (Loughborough University) are involved. In detail this report contains the results of work package 4, its work package leader being Prof. Dr. Christine Wächter (IFF/IFZ, Alpen-Adria-Universität Klagenfurt).

This deliverable of work package 4 begins with a brief introduction giving an overview of the methodology used in work package 4, the sample description, the guidelines, and some overall results. The second part contains the individual country reports, as written by the national teams of the consortium, in alphabetical order: Austria, France, Lithuania, Macedonia (also written by the Serbian team), Serbia, Spain, and the UK.

A more in-depth analysis of country specific aspects and cross-national and cross-cultural similarities will be carried out and discussed in D.4.2. in order to evaluate ‘traditional’ and ‘interdisciplinary’ Engineering degree courses in Europe. For this deliverable, some first tendencies can be summarized.

- The hypothesis that ‘interdisciplinary’ study programmes have more female students is supported by results in Austria, Spain and Lithuania.
- Hypothesis two, that the female success rate is higher in interdisciplinary study programmes, is supported by results in Spain, Lithuania, and the UK, where the women graduates’ share in study programme with 25% or more non-engineering subjects is higher than in those with less than 25 %.
- For Austria, there is a tendency that women in interdisciplinary degree courses have a higher success rate than in mono-disciplinary study programmes. To test the significance of this result, more statistical data are needed.
- In Austria, Spain, Macedonia and Serbia ‘interdisciplinary’ study programmes have their nonengineering subjects predominantly in the fields of Business and Management whereas the nonengineering subjects of ‘interdisciplinary’ study programmes in the UK and Lithuania are in more various fields like History, Philosophy, Design, Sociology.
- There is a tendency that new study programmes which are established after the Bologna process have more non-engineering subjects and are more ‘interdisciplinary’ (Spain, Austria).
- Some results indicate considerable country specific distinctions. In France, for example, it seems that students base their study choice on other criteria like the prestige of the university. For the UK, factors like socio-economic or cultural networks around a university, its image, cultural and sports resources influence students’ choices of where to study.
- Degree courses in the case studies that present and promote interdisciplinary course contents, plurality in teaching and learning styles and methods, gender equality, attract more female students.



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