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 EUCEET 3: GROUP H - DEVELOPING A SYNERGY BETWEEN ACADEMIC AND PROFESSIONAL WORLDS

Group H of EUCEET is looking at the question of how we can develop better synergy between the professional and academic worlds. A large part of this task, relating to trans-national recognition of qualifications and the development of a Common Platform for Civil Engineering, in line with the EU directive on the mobility of professionals, is the province of the Professional Associations and EUCEET is contributing to this task by assisting the efforts of ECCE Education Task Force.

The part of the task that I am writing to you about concerns the nature of our current interactions with Industry and focuses on three topics. I would be grateful if you could answer the questions below:

QUESTION 1. It is assumed that most university Departments already have significant links with Industry and the professions and that many of these are well established and fairly standard. Please confirm (or not) that this is so by completing the table below indicating the type of interactions you have and how important they are to your university, on a scale of 1-5, 1 being very important, 5 being of minor importance. Please add other examples as you see fit.

ITEM	1	2	3	4	5	Not Applicable
Use of Industrialists to give special lectures						
Site visits for students						
Placements in Industry						
Careers advice provided by Companies						
Use of Industrialists in design classes						

QUESTION 2. We are look for examples of innovative links with Industry and the Profession which we can publicise amongst our colleagues as examples of good practice. As an indication of the sort of things which we are looking for, we have given three examples of what thin are good ideas and initiatives at Imperial College London. Please give details of similar projects in which you are involved which are likely to be of interest and help to your colleagues within EUCEET. We will put these ideas together in the Group H report, as a compendium for use by our members.

Example 1. The Constructionarium

The Imperial examples are the one-week long Constructionarium, a new field work project in which students work with construction companies to design and construct a large scale structure or system. Full details are given in the attached document, attached as an adobe file. I also have other material.

Example 2. Creative Design

Imperial has recently appointed the Director of an International Consulting firm as Adjunct Professor of Design. Design is now a very significant part of our course, and we have decided that the best way to deliver this to our students is via the input of leading practitioners working closely with our academic staff. Thus the new Professor will work with our academics and a

group of engineers from his company to develop realistic and practical courses very much related to Industrial perspectives which will be given throughout our undergraduate programme. The Design Team involves about 6 people from Industry including the Professor and a similar number from imperial, working together to introduce the students to the conceptual and practical aspects of designing and delivering real civil engineering projects. Funding for the venture is provided by partly by a charitable trust, partly by the College. Two examples of design briefs are attached here to give you an indication of what we are getting the industrialists to do and what we are expecting of our students.

Details:

[http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news\\_31-3-2008-14-56-27?newsid=32134](http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news_31-3-2008-14-56-27?newsid=32134)

### Example 3. Meet The Industry

Every year we organise an evening event with about 20 of the leading civil engineering companies coming to the College to meet our students. They bring the sort of display stands and literature which you would expect to find at a conference or exhibition. The event is partly social and partly a networking opportunity and it gives the students the chance to talk to companies about the type of work they do. It is not a recruitment event as such, but students do take the opportunity to get to know about companies, which is a great help to them when they come to the time to look for jobs.

QUESTION 3. We want understand what Industry expects from universities when they are educating their students so that we can ensure that they are prepared as well as possible for the world of work, while not overlooking the important fact that universities are about broad education, not just training for specific jobs. We believe that in most countries, their will have been a number of surveys and reviews which have attempted to answer this question. Please give details of any such studies which have been undertaken within your country in the period 2004-2007, comprising a bibliographic reference to the study/report and one short summary (no more than two pages) giving the main conclusions of these reports.

As an example, relevant material from the UK includes the following articles (the summary is not yet ready, but will be prepared over the next two months):

- a) Civils skills shortage won't be solved by importing engineers. New Civil Engineer, 15 January 2008
- b) The skills shortage - can the Industry deliver? Keith Graham, New Civil Engineer, 27 November 2007.
- c) Quality and number of professional recruits in decline, warns Construction Industry Council. <http://www.istructe.org/news/article.asp?NID=354> 10 October 2007
- d) The State of the Nation - Capacity and Skills 2007 [ice.org.uk/stateofthenation](http://www.ice.org.uk/stateofthenation)
- e) Educating Engineers for the 21<sup>st</sup> Century, Royal Academy of Engineering, June 2007, ISBN 1-903-496-35-7, [www.raeng.org.uk](http://www.raeng.org.uk)
- f) Skills for the Built Environment - Team Effort. Institution of Civil Engineers, [www.ice.org.uk/downloads/skillseffort.pdf](http://www.ice.org.uk/downloads/skillseffort.pdf)
- g) Broader Skills Base Needed for engineers to Solver Water Crisis, New Civil Engineer, 1 January 2007
- h) House of Commons Education and Skills Committee. Call for Evidence: The future sustainability of the higher education sector - purpose, funding and structure. Submission by the Royal Academy of Engineering, December 2006. <http://www.raeng.org.uk>
- i) Construction Skills Network: Blueprint for UK Construction Skills 2007-11
- j) Engineering firms not engaging with students, says academic. New Civil Engineer, 1 January 2007
- k) Universities not producing enough engineers, warns Royal Academy of Engineering, New Civil Engineer, 19 June 2007.

- l) Engineers to play key role in UK's future says Treasury Report. New civil Engineer, 28 November 2006.
- m) 28 year old project managers pick up £75,000 salaries. New Civil Engineer, 28 January 2007
- n) Built Environment Professional Services Skills Survey 2003/04, Construction Industry Council, [www/cic.org.uk/services/SurveyFindingsImplications.pdf](http://www/cic.org.uk/services/SurveyFindingsImplications.pdf)
- o) Educating Industry for the 21<sup>st</sup> Century - The Industry View. Royal Academy of Engineering/Henley Management College, March 2006.
- p) Rules of Attraction: How Should We Tackle the Skills Crisis in Civil Engineering? New Civil Engineer, 11 January 2007
- q) Half of all engineers looking for a new job and more cash. New Civil Engineer, 1 June 2006

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This response has been prepared by the following organisation:

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