

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

TO: All EUCEET Contacts

FROM: Colin J Kerr, Imperial College, on behalf of Group H

SUBJECT: Request for Information on two questions

DATE: April 2008

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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, each with a question below. I would be grateful if you could answer questions ONE and TWO. Question THREE is included here for background information, since it is our intention to obtain one consolidated reply for each country, provided by a nominated individual, probably from our ECCE colleagues, though possibly by a EUCEET member. Please complete questions one and two and return them to me, via e-mail, giving your Institution and contact details:

c.i.kerr@imperial.ac.uk

Deadline: Friday 13 June 2008.

QUESTION ONE. 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. Earlier work (eg EUCEET WG3) has covered this topic, and this question is intended as an update of that work. Please indicate the type of interactions you have and how important they are to your university, by completing the table below, on a scale of 1-5, 1 being very important, 5 being of no importance. Five typical examples are given, but please add as many more as you need.

ITEM	1	2	3	4	5	N/A
Use of Industrialists to give special lectures						
Site visits for students						
Placements in Industry						
Careers advice provided by Companies						
Use of Industrialists in specialist areas, eg design classes						
Use of Industrialists in specialist areas eg construction management						

QUESTION TWO. We are looking 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 we think 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 of good ideas and practice for use by our members.

Example 1. The Constructionarium

It has been recognised for some time at Imperial that undergraduate students, although academically very able, have little experience of or skill in working with hand tools and therefore little understanding of how to go about the task of building a physical artefact. To address this perceived deficiency, a one-week field course - The Constructionarium – is held at the end of the second year. With support from construction companies, teams of students are required to construct, safely, efficiently and economically, a reduced-scale version of an existing design. Further details are given in the 2 attached files and web link below:

<http://www3.imperial.ac.uk/pls/portallive/docs/1/16645697.PDF>

Example 2. Creative Design

Imperial has recently appointed as Adjunct Professor of Creative Design the Director of Structural Engineering of an International firm of consulting engineers. Design is an essential thread that must run through all stages of an undergraduate course and the best way of ensuring that students are excited and inspired by exposure to real engineering design is considered to be through the involvement of leading professional practitioners working together with academic staff. The new Professor has developed a course base on practical project work which gives a clear impression of all the issues that influence design decisions at the conceptual stage. The course is tutored as studio work by 6 young engineers from the Professor's company, together with a matching number of academic staff. Funding for the course is provided jointly by a charitable trust associated with the company and my Imperial College. Further details are given at:

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.

These three examples will be written up as one or two page summaries, for publication in our report. Colleagues are invited to submit their examples of interesting and innovative collaborations with Industrial and Professional colleagues, preferably as text ready for publication, but in electronic format to allow for editing. These will be published in the final report of Group H.

QUESTION THREE. This question is included here for information only, because we intend to tackle it by commissioning one summary report from each country. The authors will probably be members of the ECCE Education Task Force, but it is possible that you, as a EUCEET Member, may be approached to do this on behalf of your country.

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, there 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.

relevant material from the UK includes the following articles, which will be summarised and presented as the UK view.

- 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 21st Century, Royal Academy of Engineering, June 2007, ISBN 1-903-496-35-7, www.raeng.org.uk
- f) Skills for the Built Environment - Team Effort. Institution of Civil Engineers, www.ice.org.uk/downloads/skillseffort.pdf
- g) Broader Skills Base Needed for engineers to Solve 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
- o) Educating Industry for the 21st 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

Also see:

JBM/Laing O'Rourke review of what universities are presenting to Industry (DLS).
Mike Devreindt (Arup) paper for June Geotechnics conference (IM)

This response has been prepared by the following organisation:

Institution:
Contact Name:
Contact address:
E-mail:

Please return by e-mail, to Colin J Kerr, Imperial College London, by Friday 13 June.
c.j.kerr@imperial.ac.uk

