

Presentation to PHEE

on behalf of

Engineering Professors' Council (EPC)

by

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Engineering Professors' Council

Mission Statement

Promoting excellence in engineering
higher education

Engineering Professors' Council (cont'd)

Membership

- **about 1400 individual members**
- **86 different universities**
- **EPC Representative acts as channel of communication**
- **all engineering disciplines are represented**

Engineering Professors' Council (cont'd)

Committee

- **24 members in total**
- **has elected members and 11 co-opted members**
- **includes chairmen of Sectoral Groups eg PHEE**

Engineering Professors' Council (cont'd)

2 Annual Meetings

Representatives' Meeting - November Manchester

- all EPC Representatives invited
- focuses on EPC's activities and advises the committee

Engineering Professors' Council (cont'd)

Annual Congress - Easter

University of Surrey April 14-16 2003

- open to ALL EPC members
- focuses on topical issues with invited guest speakers

(Last Congress was in Durham)

Engineering Professors' Council

Mission Statement

Promoting excellence in engineering
higher education



Aims

- A. To support excellence in engineering higher education**
- B. To make the excellence in engineering higher education more widely known**
- C. To lobby for and influence relevant bodies to obtain adequate resources for engineering higher education**

Aims (Cont'd)

A1 To support excellence in research within engineering higher education

A1.1 To inform and influence the RAE process on engineering matters and act pro-actively rather than reactively

A1.2 To facilitate the flow of qualified research workers into engineering higher education

Aims (Cont'd)

A2 To support excellence in learning, teaching and assessment in engineering higher education

A2.1 To shape and share best practice in quality assurance

A2.2 To identify, develop and promulgate LT&A best practice in the UK and internationally, including student learning, and to promote good novel methods for LT&A

Aims (Cont'd)

A2.3 To advise government, schools and other stakeholders on educational needs, qualifications and skills required for entry into engineering higher education

A2.4 To influence professional bodies (accreditation)

Aims (Cont'd)

B To make the excellence in engineering higher education more widely known

B1 To work with others eg ETB, EC(UK), professional bodies and industry to promote engineering nationally and internationally

B2 To encourage the development of good practice in the promotion of engineering among members

Aims (Cont'd)

C To lobby for and influence relevant bodies to obtain adequate resources for engineering higher education

C1 To increase credibility relating to resource issues by contact with appropriate organisations (eg professional bodies, the Royal Academy of Engineering, QAA, Universities UK, government, funding councils, EPSRC, industry, university management)



Aims (Cont'd)

C2 Ensure adequate recruitment, retention and development of academic and research staff

C3 Convince university senior management of the value of engineering to higher education

Implementation Plans

Increasing the awareness of and credibility of EPC by

- **attending national and international events, presenting papers, responding to consultations**
- **increasing contacts with EPC members eg e-mail list of membership**
- **encouraging input from all members either directly or via eg PHEE Chairman**

Recent Initiatives

Bologna Seminar on 20 November 2002

**Meeting to discuss response to review
of RAE - 20 November 2002**

Related Output Standards activities

Parliamentary lobbying

Recruitment issues



Output Standards

- **work going on for a number of years**
- **a methodology by which engineering graduate output standards can be both defined and expressed meeting the following criteria**
 - > **a set of generic statements which articulates the output standard of engineering graduates**
 - > **must be acceptable to government, industry, professional institutions, university**

Output Standards (cont'd)

Current position

- **the reports of the five working groups were launched at the Durham Congress**
 - > **enthusiastically received**
 - > **setting the agenda for the future**
- **Assessment Workshops a successful initiative**

Parliamentary Lobbying

(Contact with Dr I Gibson, Chairman, House of Commons Science and Technology Select Committee)

The importance of universities to British economy

Preparedness for higher education

Capital investment

Postgraduate students

Implications of the Bologna Declaration

Recruitment

EPC concerns include

- **recruitment of suitable undergraduates in adequate numbers**
- **recruitment of suitable postgraduates to meet the needs of higher education and industry**
- **recruitment of suitable academic staff**

Recruitment of undergraduates

Issues include

- **mathematics teaching in schools**
 - ⇒ **small group set up to monitor and follow up initiatives**
- **school curriculum**

Recruitment of undergraduates (cont'd)

School Curriculum

- **responded to Government review of education 14-19**
- **involved in discussions on new vocational A levels in Engineering**
- **gave evidence to the Commons Science and Technology Select Committee on School Science Education**



Recruitment of undergraduates (cont'd)

Wider Concerns

- **EPC is not only concerned with numbers but also the quality and educational background of students.**
- **EPC involved in School Curriculum issues**
 - ⇒ **will GCSE/A Level in engineering help?**
 - ⇒ **content? delivery?**

Recruitment of undergraduates (cont'd)

Wider Concerns (cont'd)

From 1994-1998 for Eng & Tech courses

- entrants fell by 7%**
- applications fell by 35%**
- A level points increased by 10.9%**

Recruitment of Postgraduates

Roberts report echoed EPC views

- **need to attract the best UK graduates into research**
- **this will require**
 - ⇒ **improved grants**
 - ⇒ **better career paths into academia**
 - ⇒ **higher salaries and better contracts**

Recruitment of Academic Staff

- **many universities already reporting difficulties (Long report)**
- **HEFCE report on academic staff trends and projections**
 - ⇒ **showed nearly 10% decline between 1995 and 2000**
 - ⇒ **suggested an increase of 22% needed by 2010-2011**
 - ⇒ **EPC has called for special grades for engineering**

EPC has also called for

- **investment to support research**
- **better provision for equipment**
- **attention to workload particularly for younger staff**

Roberts Review

- **EPC Response well received**
- **main points**
 - ⇒ **salaries must be increased to allow recruitment and retention of high quality staff**
 - ⇒ **expectations for teaching, research and income generation are impossibly high**
 - ⇒ **funding levels for courses are inadequate**
 - ⇒ **ways must be found to enable more UK postgraduates to undertake research**

SARTOR

- **controls progression to CEng and IEng**
- **currently seen to focus on entry standards and routes**
- **Move to Output Standards?**
- **EPC hope that their Output Standards will inform discussion and influence the outcome**
- **MEng now part of established framework**