

review 2004

The Engineering Council UK



regulating the engineering profession

Message from the Chairman



ECUK has consolidated its position as a co-ordinator of the UK engineering profession's regulatory requirements. The Board has maintained excellent relationships with the stakeholder institutions, and has established a climate of trust which has enabled **ECUK** to provide the UK engineering profession with real reforms to standards and procedures and new means to maintaining confidence through quality assurance.

The challenge is now to consolidate these gains, and use them to improve the standing of the profession and its Institutions. The Board spent much of 2003 developing its first Three-Year Plan. The principal objective will be to secure effective marketing of the value of professional registration. Since the Engineering Council was first reformed, in 1996, there has been a steady decline in the number of new registrations. The Board recognises that employers need to learn more about the benefits of employing staff who have satisfied the exacting standards for registration, and are committed to continuing professional development. Marketing registration is therefore the most significant objective for the Plan.

The Plan also recognises the growing importance of international recognition of professional engineers and technicians. The growth of globalization has accelerated this, as services and products are traded more widely. However it is within Europe, where pressure to break down barriers to trade, and fiscally-driven reforms to higher education, are combining to generate serious strains in the 1989 consensus on European Engineer registration, where most effort will need to be concentrated in the coming year.

S I R C O L I N T E R R Y

Cover picture: Motorcycle close-up; courtesy of Triumph Motorcycles Limited, all rights reserved.

This page: Artist's impression of the Olympic Park 2012 in East London; courtesy of London 2012 Ltd.

Message from the Executive Director



Against all odds, the Board and staff of **ECUK** developed, tested against sector opinion, and published, UK-SPEC just over a year after deciding a major overhaul of the standards for registration was necessary.

The new standard met with almost universal acclaim, reflecting the many hours spent discussing and refining its content with employers, educators, institutions and training organisations. Its core was the competence standards originally contained in SARTOR, but now elevated to be the prime consideration for registration.

Particular acknowledgement of the role of the Board Working Group, led by Professor Kel Fidler must be made, but Richard Shearman, as Director of Formation Division, burnt the midnight oil to achieve the impossible deadlines that were set.

There has been barely a breathing space since Lord Sainsbury helped launch the new standard on 1 December, as the underpinning changes to procedure have been developed. Drafts of a new Licensing Manual to strengthen links with Institutions were available by mid-December, together with a brief set of regulatory procedures, replacing the detailed SARTOR Manuals.

Preparations were also in hand to run training seminars for key Institution staff, and for employer briefings, and conferences about the implications of the new competences. The remaining documents – a guide to accreditation for academic institutions, and guidance for professional bodies on registration matters – are under way. Following these, consideration is being given to two guides for employers.

ECUK gained ISO 9001/2000 registration early in 2004 – an acknowledgement of the rigour of its internal procedures – and is close to achieving Investor in People status, demonstrating a well-founded programme of staff training and development.

Building on these, **ECUK** was looking forward, as 2004 began, to a year of promotion and marketing of the Register, assisted by its sister body, ETB.

A N D R E W R A M S A Y

THE REGISTER

ECUK provides a central Register for 266,385 registrants (1 January 2004) who met standards for entry as Chartered Engineers, Incorporated Engineers or Engineering Technicians, or have satisfied interim registration requirements. The work of assessing individuals against the published

standards is undertaken by Institutions under licences awarded by **ECUK**. Inevitably, in addition to the losses and gains each year, considerably more Registrants change their addresses, registration status or Institution.

ECUK regards it as essential to be able to communicate accurate information on registration status to aspirant registrants and employers, and to provide an efficient backup support to Institution membership departments. We aim to achieve high professional standards and provide a cost-effective service.

REGISTER STATISTICS AT 01/01/04

TOTAL NUMBER OF REGISTRANTS AT 01/01/04: 266,385

	2003	2002
Final Stage Registrants	248,418	257,039
Interim Registrants	17,967	19,574

Female registrants rose to 6,729 (2002 – 6,586) with the largest growth in Chartered Engineers 5,136 (2002 – 4,887)

The breakdown of Final Stage Registrants was as follows:

CEng	190,402	194,871
IEng	45,192	48,228
EngTech	12,824	13,940
Deaths	1,312	1,102
Other losses	12,878	6,535

New Final Stage Registrants	2003	2002
CEng	4,504	5,180
IEng	599	789
EngTech	466	574
Total	5,569	6,543

Overseas Final Stage Registrants

CEng	35,650	36,357
IEng	4,320	4,828
EngTech	1,209	1,362

The largest number of overseas final stage registrants were based in Hong Kong (9,470); Australia (4,747) and USA (3,748)

% EXPENDITURE

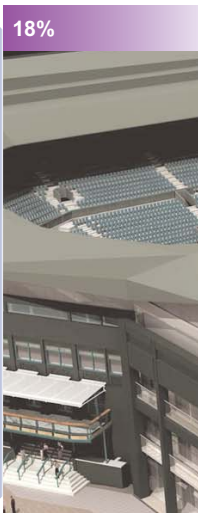
Register maintenance

17%



External liaison and overall strategy

18%



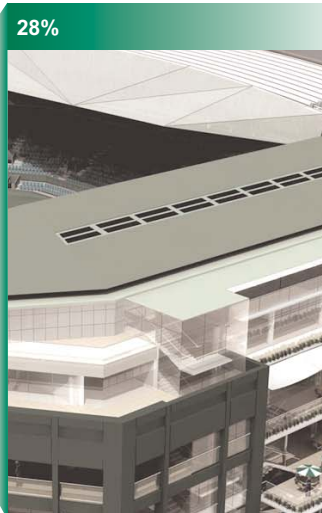
International advice & liaison on common standards and registers

11%



Audit of institutions and accreditation database

28%



Registration Standards: development of standards & advice on implementation

26%



Projected Centre Court with roof, courtesy of The All England Lawn Tennis Club

2003 was almost entirely devoted to completion of the review of standards for registration, which had begun in late 2002. A heavy programme of work culminated in the publication on 1 December of the United Kingdom Standard for Professional Engineering Competence (UK-SPEC). UK-SPEC was launched by Lord Sainsbury, the Minister for Science and Innovation, at a very well attended event at Central Hall, Westminster.

During the first half of the year the Board's Standards Review Working Group, chaired by Professor Kel Fidler, developed a specification for the new Standard. This was based upon a wide-ranging consultation with Institutions, employers and educators, begun in late 2002. Following the publication in February of a consultative draft, the final specification was agreed by the Board in May and published at the Annual General Meeting in June.

Work on the detailed development of the standard then passed to Registration Standards Committee (RSC), also chaired by Professor Fidler. This set up a number of working groups, each chaired by an RSC member, and made

up of nominees from Institutions. Institutions' readiness to involve senior members and staff in this work ensured that the development of the standard went smoothly. It was an open process, with working drafts of the groups' proposals being continually available to Institutions for comment.

Successful completion of this work enabled UK-SPEC to be published almost exactly twelve months after the start of the consultative process, a much shorter time than many had thought possible. At the same time, a draft of the regulations for Institutions to follow in applying UK-SPEC was also out for consultation with a view to publication early in 2004.

UK-SPEC is firmly based upon the principle that registration is open to anyone who can demonstrate the necessary competence and commitment to professional standards. Every effort has been made to present it in clearer terms than SARTOR 3 which it replaces. It removes some of the perceived artificial barriers in respect of educational qualifications, and also offers more accessible processes for the assessment of applicants who do not

have the exemplifying educational qualifications, notably the submission of a Technical Report. Under UK-SPEC, accreditation of academic programmes will be based upon their demonstrating specific learning outcomes, rather than on input measures. The publication of a separate document setting out the standard for Engineering Technicians will help in promoting registration to this important group, which is under-represented on the Register at present.

Besides this work, close attention continued to be paid to developments in national education and training systems and policy. **ECUK** was able to take part in valuable discussions with the DfES on developments in implementing the Bologna Declaration on higher education in Europe, which has caused some concern to engineering academics in the UK. There was also some engagement with the Tomlinson working group on the reform of 14–19 qualifications. Close contact was maintained with relevant Sector Skills Councils, especially SEMTA, and with other employers' bodies, on education and skills issues.

www.uk-spec.org.uk

The staff 'Away Day' in October sharpened our creative skills – see the "Picasso" on the right – and proved once again that we're not just a lot of pretty faces . . .



Photos: Andrew Ramsay and Chloe Nast

The **ECUK** Quality Assurance process has been substantially updated during 2003. The former Engineering Council's Nomination and Audit Committee's Regulations and Procedures Manual has been replaced by the completely new **ECUK** Licensing Manual. This Manual is greatly reduced in size and is web based, being available through the **ECUK** UK-SPEC website, for ease of reference.

The Manual has been approved by the **ECUK** Board and became effective on 1 March 2004 along with UK-SPEC.

It defines the framework by which professional bodies maintain the licences which allow them to nominate applicants for the UK Register of Engineers. It also covers the approval process for Professional Affiliates.

The new approach, reflected in the Manual, increasingly relies on Institutions' ability to effectively assess

their own operations allowing **ECUK** more time to focus on consistency of standards and to facilitate continuous improvement.

As part of the development of the Manual the role of volunteers, upon which the licensing process relies at present, has been carefully reassessed. They give support to Institutions on request, take part in working groups examining specific processes or issues, as well as the more formal role of monitoring institution activities when this has been defined as a licence requirement.

With the introduction of UK-SPEC and the **ECUK** Licensing Manual the level of training carried out by **ECUK** for Institution staff and volunteers continues to increase. The Academic Course Accreditation Database also continues to form an important part of the Registration process. It has again been improved during the last year in

response, primarily, to Institution staff feedback. In addition all older courses have now been added.

Throughout 2003 **ECUK** has been working towards compliance with ISO 9001 (the international Quality Management Systems standard) and recently achieved certification. This was effective from 17 February 2004 and the approval certificate is valid for 3 years, subject to regular surveillance by Lloyds Register Quality Assurance. This approval underwrites the integrity of our Register and the procedures that underpin it. As part of the standard the requirements oblige **ECUK** to maintain a policy of continuous improvement, demonstrating to assessors the constant search for ways to improve services, simplify procedures and respond to changing market expectations.



Triumph Rocket III motorcycle of 2,294 cc, a close-up of which is on the cover page; courtesy of Triumph Motorcycles Limited, all rights reserved.

An International Panel provides policy advice to the Board, meeting under the chairmanship of Board Member David Long. The two main international policymaking organisations in which **ECUK** participates are the European Federation of National Engineering Associations (FEANI) and the International Engineers' Meeting (IEM), a grouping which comprises the engineering organisations around the world which are signatories to various mutual recognition agreements.

FEANI is recognised by the European Commission as the main organisation representing engineers within the EU so it is vital to the UK interest to have its views reflected by the FEANI position on important issues such as the Directive

on Recognition of Professional Qualifications. This is being achieved but not without considerable effort and the need for constant vigilance. On the Directive, it has been necessary for **ECUK** to independently make its views known to the Commission, MEPs and the UK Government. So far the outcomes of this lobbying have been successful.

World-wide, there is a genuine desire from the countries which make up the IEM to move forward on increasing the scope for mutual recognition of professional qualifications. The next two years will see reinforcement of existing agreements, such as the Washington Accord and the International Register of Professional Engineers, and new

initiatives which could lead to the setting up of a global secretariat to administer all the agreements. The next IEM meeting in Hong Kong in 2005 will be very important and **ECUK** is positioned to play a leading role.

Export of engineering services makes a net contribution of £2billion to the UK balance of payments so it is important that UK engineers and the companies that employ them can operate in a fair market. The EU is currently proposing legislation on professional services and **ECUK** is involved in the consultation. **ECUK** is also assisting the UK Government with regard to its current negotiations under the World Trade Organisation's General Agreement on Trade in Services.

ECUK BOARD MEMBERS

Sir Colin Terry KBE CB FREng CEng BSc(Eng) FRAeS
Professor David Anderson BSc(Eng) PhD CEng
 FIStructE FICE
Professor Howard Barnes OBE FREng [Resigned
 April 2003]
Mr John Baxter BSc CEng FIMechE FIEE
Mr Amar Bhogal BSc(Hons) CEng FICE
Mr John Chapman CEng FBCS
Mr Philip J G Corp CB MA CEng HonFSOE FIMechE
 FRSA
Professor Graham Davies DSc FREng FInstP FIEE

Rear Admiral Peter R Davies CBE MSc CEng
 FIEE
Mr Peter Dipper IEng FIHIE MIHT
Mr Barry Dobson BSc CEng FIEE FIEE
Dr Trevor J Evans CEng FICChemE
Dr John Ferrie FREng Eng D BSc CEng FRAeS
 FIMechE
Professor Kel Fidler BSc PhD CEng FIEE FRSA
Mr Bryan Franklin CEng FCIBSE
Mr Mike Gannaway [From November 2003]

Professor Peter Hills MPhil DIC CEng FIMechE FIED
Mr David Long CEng FIMarEST
Dr Sa'ad Medhat PhD MPhil CEng FIEE FCMI MInstD
 [From May 2003 – resigned November 2003]
Dr Peter Melville DEng CEng CPhys FInstP
Ms Shahana Mirza BEng(Hons) CEng MIChemE
Ms Michelle Richmond CEng FIEE MIEE
Dr B A Rickinson CEng FIMMM
Mr Mark Taylor LLB BSc IEng FIEE Solicitor and
 Harwicke Scholar of Lincoln's Inn [Resigned October 2003]



The Engineering Council UK

**10 Maltravers Street
 London WC2R 3ER**

Tel: +44 (0)20 7240 7891
 Fax: +44 (0)20 7379 5586

e-mail: staff@engc.org.uk
www.engc.org.uk | www.uk-spec.org.uk

Registered Charity no 286142



regulating the engineering profession