

**ROYAL ACADEMY OF ENGINEERING  
ANNUAL REPORT - 2008/09  
PROGRESS AGAINST MILESTONES AND TARGETS**

Programme	Grant-in-Aid Spend		Change £
	2007/08 £	2008/09 £	
1. RAEng/EPSRC Research Fellowships	2,114,000	2,341,000	227,000
2. Research Chairs and SRFs	1,383,000	1,504,000	121,000
3. Global Research Awards	461,000	483,000	22,000
4. Research Chairs in Emerging Technologies	150,000	150,000	-
5. Industrial Secondments	345,000	345,000	-
6. Visiting Professorships	594,000	618,000	24,000
7. Engineering Professional Development Awards	327,000	262,000	(65,000)
8. International Travel Awards	592,000	430,000	(162,000)
9. Distinguished Visiting Fellowships	161,000	161,000	-
10. Research Exchanges with China/India	217,000	217,000	-
11. Education Studies & Support	584,000	607,000	23,000
12. Engineering Leadership Scheme	-	325,000	325,000
13. Policy and International	803,000	829,000	26,000
14. Communications and Publications	677,000	677,000	-
15. Programme for Science Teachers	249,000	249,000	-
16. Public Engagement Awards	515,000	515,000	-
17. Rent, Rates and Operating Costs	580,000	566,000	(14,000)
	9,752,000	10,279,000	527,000

**1. RAEng RESEARCH FELLOWSHIPS**

Programme/Metric – 2008/09	Target	Result
Total number of Fellowships in place at year end	56	59
Total number of papers produced in-year	154	126
% of Fellows retained in research on conclusion	90%	95%
Total value of third party support in-year	£6,425K	£6,389K
% of mentor reports rated 'successful' or better	100%	100%
Avg Rebased Impact of publications and citation performance	1.50	2.10

110 high quality candidates applied for posts of which 11 were appointed. This brought the total number of fellowships to 59 at the year end. There was a high level of third party support at £6.4 million which was over 2.7 times the Grant-in-Aid spent on the programme. The number of papers produced was less than target, however the increase in the impact performance shows that the papers were of exceptionally high quality.

**2. RESEARCH CHAIRS AND SENIOR RESEARCH FELLOWSHIPS**

Programme/Metric – 2008/09	Target	Result
Number appointed in-year	5	5
Total number in place at year end	36	36
Total number of papers produced in-year	88	59
Total number of patents obtained in-year	5	5
Total value of third party support in-year	£16,200K	£17,116K
Ratio of Third party support to GIA support	10.8:1	11.4:1
% of positions given ongoing industrial partner support	100%	100%
% of mentor reports rated 'successful' or better	100%	100%
Average size of team created	10.8	11.5
Avg Rebased Impact of publications and citation performance	0.90	1.00

5 new posts were created in the year bringing the total number of posts to 36. In addition a further 6 posts are under active consideration. The programme continues to be well funded by industrial partners to the extent of over £17 million in the year. This is the Academy's flagship programme.

### 3. GLOBAL RESEARCH AWARDS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
No of awards in year	15	15
% of reports rated 'successful' or better	95%	100%
% of Award holders in continued contact after one year	90%	100%
Third Party Support	£505K	£548K

The programme had a successful year, the number of awards made was 15 this is the same number as in the previous year.

### 4. RESEARCH CHAIRS IN EMERGING TECHNOLOGIES

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Number of papers produced per Chair in-year	t.b.a	4
% of mentor reports rated 'successful' or better	100%	100%
Number of industry links established in-year per chair	t.b.a	4

Professor Anne Neville, University of Leeds, was appointed to the first and so far only Chair. This prestigious 10 year appointment is worth £1.3 million over that period.

### 5. INDUSTRIAL SECONDMENTS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
% of completion reports rated 'successful' or better	90%	100%
% of 'year-on' reports rated 'successful' or better	100%	100%
Number of secondees in year	15	16

The scheme enabled 16 secondments, same number as in the previous year. All participants speak highly of the value of the links forged between their universities and the host companies.

### 6. VISITING PROFESSORSHIPS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Total of value added support in kind from industry, of which:	£1,050K	£1,056K
- Principles of Engineering Design	£300K	£243K
- Design for Sustainable Development	£150K	£183K
- Design of Integrated Systems	£500K	£518K
- Innovation & Engineering Design	£100K	£112K
Total number in place	140	132
% of reports rated 'successful' or better	75%	93%

The Visiting Professorship posts in engineering design are all self-funded and those in design for sustainable development are becoming increasingly self-funded. The number of posts in place are: 55 in the principles of engineering design; 14 in design for sustainable development; 28 in integrated system design; and 5 in innovation and engineering design. The programme provides a valuable link between industry and the universities

## 7. ENGINEERING PROFESSIONAL DEVELOPMENT AWARDS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
% reports from SME management rated successful or better	87%	91%
Total value of third party support in-year	£2,000K	£4,058K
Ratio of third party support to DIUS support	8.5:1	20.4:1

A total of 62 awards were made which involved 1,496 engineers in SME companies. The level of third party support for the programme is very high and approximately £4.1 million was attracted to the programme from participating companies.

## 8. INTERNATIONAL TRAVEL AWARDS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
% of dissemination reports rated 'successful' or better	93%	94%
% of awards leading to on-going research networks	93%	95%

This is a very successful scheme which attracted a large number of applications. A total of 702 awards were made for visits to over 100 countries. The dissemination reports are highly rated and many valuable overseas research networks are established.

## 9. DISTINGUISHED VISITING FELLOWSHIPS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
% reports from hosts rated 'successful' or better	90%	90%
% visits resulting in continued international links one year on	85%	100%
Number of Fellowships in year	25	26

There were 90 applications and funding enabled 26 awards to be made.

## 10. RESEARCH EXCHANGES WITH CHINA/INDIA

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
% final reports rated 'successful' or better	90%	100%
% resulting in continued international links 1 year on	75%	N/A*
Number of exchanges at year end	18	17**
* Will be known by December 2009		
** An awardee dropped out for medical reasons		

Just over 40% of the awards were major ones for exchanges of three to twelve months. The remainder were short awards for exchanges of up to three months. The majority of applications and awards have been for exchanges with China rather than India.

## 11. BEST EDUCATION PROGRAMME

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Number of Young Engineers Clubs established	1,500	1,591
Number of students participating in pre-university schemes	10,000	12,727
Number of students participating in undergraduate schemes	330	285
Number of students participating in postgraduate schemes]	55	55
Total of external funding	£5,000K	£5,569K

The Best programme continues to expand due to the activities of Best partners. The London Engineering Project has proven to be successful in bringing a more diverse student population to engineering higher education. The Programme will be rolled out nationally.

## 12. ENGINEERING LEADERSHIP SCHEME

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Number of students in scheme	330	285
% of mentor reports rated 'successful' or better	90%	N/A*
<i>* Evaluation work has only just started</i>		

There a high level of competition for both the Standard and the Advanced Awards. The programme has great potential to identify and develop future engineering leaders.

## 13. ENGINEERING POLICY AND INTERNATIONAL ACTIVITIES

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Number of responses submitted to Parliamentary and other enquiries	12	26
Number of Academy sponsored reports produced in-year	3	3
Number of events arranged in support of reports and investigations	12	10

There were 26 responses to Parliamentary, Government and other bodies. There were major reports, statements or seminars on important topics such as Synthetic Biology, Geothermal Heat, Severn Barrage, Philosophy of Engineering, Ethics, Nuclear Skills and Diversity.

## 14. COMMUNICATIONS AND PUBLICATIONS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Total number of Academy events accessible to the public	18	20
Circulation of Ingenia magazine	11,000	10,850
% of readership surveys for Ingenia rated 'successful' or better	94%	94%
Hit rate per month of 'unique visitors' on Academy web-site	100,000	107,000
Time spent in seconds of 'unique visitors' to Academy web-site	120	190

The circulation of Ingenia has been expanded to nearly 11,000 copies per issue and will be expanded further. The events programme of lectures and conferences attracts significant audiences, and the web site continued to expand as a major medium for promoting the Academy's messages.

## 15. PROGRAMME FOR SCIENCE TEACHERS

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
Number of science teachers involved in programme in year	1,100	1,200

Science teachers have a major influence on young people's aspirations. This new programme provided an engineering business experience to a substantial number of science teachers.

## 16. PUBLIC ENGAGEMENT AWARDS (INGENIOUS AWARDS)

<b>Programme/Metric – 2008/09</b>	<b>Target</b>	<b>Result</b>
% of Awards rated 'successful' or better by Academy Fellows	80%	tba*
Number of awards made	15	14

Many good quality applications were received from which 14 awards were made to a diverse range of projects.