

RESEARCH
ASSESSMENT
EXERCISE 2008



Swansea University
Prifysgol Abertawe

MISSION STATEMENT

Swansea University will provide an environment of research excellence, with research being undertaken that is internationally recognised and that informs all other activities at the University.

Swansea University will deliver an outstanding student experience, with teaching of the highest quality, that produces graduates equipped for distinguished personal and professional achievement.

The University community will be a powerhouse for growth in the regional economy and will greatly enrich the community and cultural life of Wales. It will contribute to the health, leisure and well-being of citizens in South West Wales and beyond.



IN OCTOBER 2003

Swansea University set out its vision to be a research-led university of international quality.

IN DECEMBER 2008

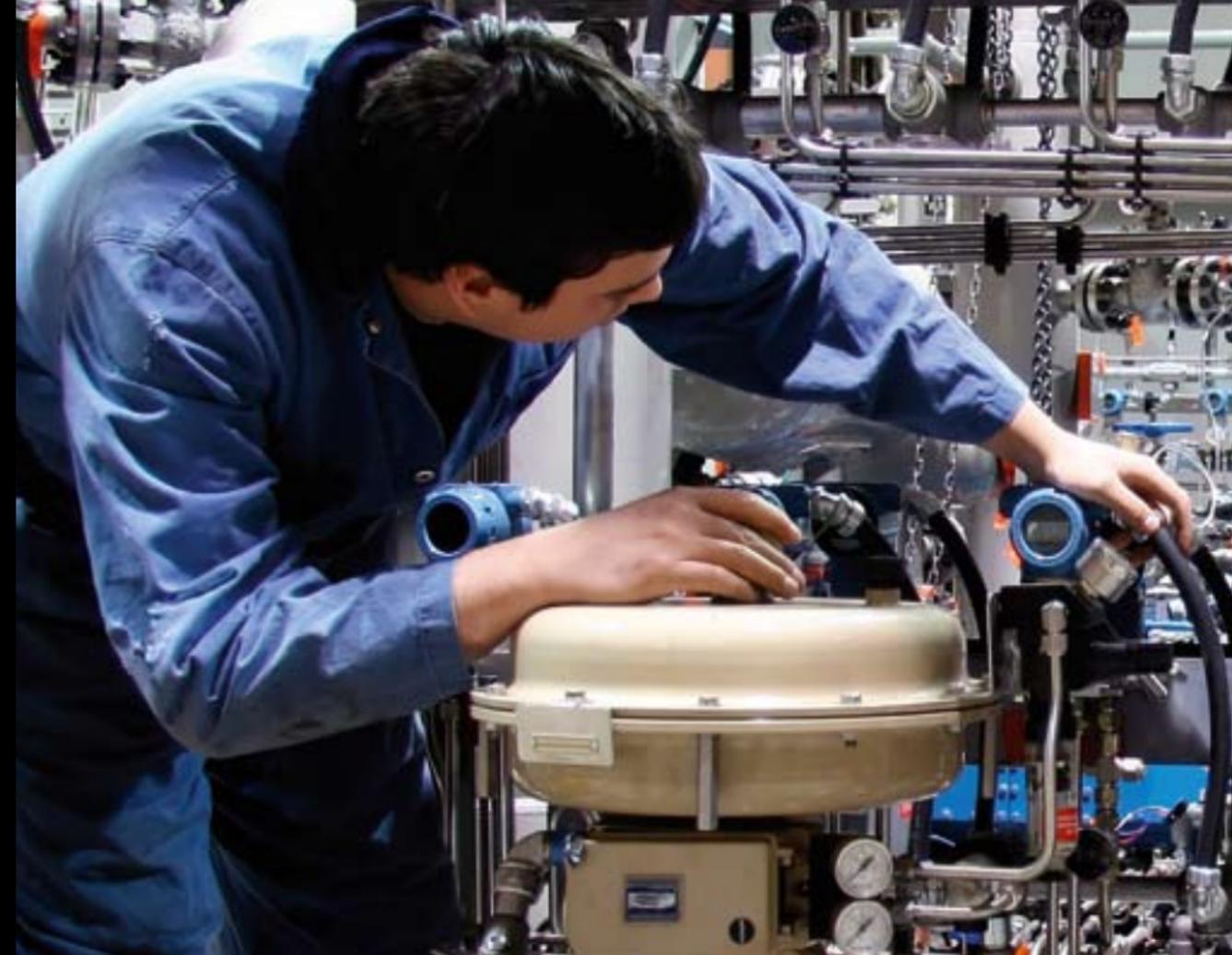
The results of the Research Assessment Exercise demonstrated unequivocally that the University is beginning to do what strong research-led universities should be doing:

providing high-quality international research leadership.

WORLD-LEADING AND INTERNATIONALLY EXCELLENT

Swansea University has the largest increase in internationally excellent research in the whole of the UK.

		staff count
2008	World-leading and internationally excellent research	242.9
2001	Top rated (5 and 5*) research areas for international excellence	79.2
Increase from 2001 to 2008		163.7



Only four other universities have achieved an increase of more than 120: Loughborough, Nottingham, the Open University and Aberdeen.

Swansea's contribution to world-leading (including internationally excellent) research in Wales has more than doubled in 7 years, from 8.7% to 19.1%.



Professor Richard B Davies VICE-CHANCELLOR

In the RAE 2001, just one academic area at Swansea (Civil and Computational Engineering) achieved the coveted 5* classification indicating international excellence in over half the research activity. Seven years later, we have nearly achieved the equivalent level across the University as a whole:

47.5% of our research has been rated as world-leading or internationally excellent. Even more remarkable, 11% of our research achieved the higher category of "world-leading".

These strong results, particularly in areas that are mission critical to the future vision of the University, put us in an excellent position, along with our continued investment programme, to achieve our high ambitions.

90%

(512) of eligible staff submitted
(407 submitted in 2001)

11.3%
of staff rated as world-leading (4*)

47.5%

of staff submitted for assessment rated world-leading or internationally excellent (4* and 3*)

85%

of staff submitted classed as producing research of international quality or above (4*, 3* and 2*)

27
out of **31**

research areas are shown to be undertaking research that includes world-leading work (4*)

WHAT IS THE RAE2008?

The Research Assessment Exercise (RAE) 2008 is an evaluation of the quality of research underway across the UK higher education sector.

The results were published on 18 December 2008 in the form of quality profiles produced for each area of research activity submitted for evaluation.

From the 2009/10 academic year, the UK's higher education funding bodies will use these quality profiles to allocate core research funding to each institution.

The full definitions of the quality scale used are:

- 4* Quality that is world-leading in terms of originality, significance and rigour.
- 3* Quality that is internationally excellent in terms of originality, significance and rigour but which nonetheless falls short of the highest standards of excellence.
- 2* Quality that is recognised internationally in terms of originality, significance and rigour.
- 1* Quality that is recognised nationally in terms of originality, significance and rigour.
- u/c Quality that falls below the standard of nationally recognised work or work which does not meet the published definition of research for the purposes of this assessment.

NB: throughout this booklet, we follow the convention of multiplying the percentages in the quality profile by the number of staff submitted for evaluation in that subject area. This creates a notional number of staff at each point in the quality scale.

UK RANKING

36th out of 137

The Times Higher Educational Supplement league table ranks Swansea in 52nd place, up 13 places since the RAE2001.

However, the league table cannot correct for the proportion of eligible staff submitted as this information has been withheld.

Swansea submitted a higher proportion of eligible staff compared with many other institutions. When the tables are recalculated to take into account "research power" (average score x volume of staff submitted), Swansea is placed 36th out of 137 institutions.

WORLD-LEADING PERFORMANCE

CIVIL ENGINEERING
2nd in the UK*

GENERAL ENGINEERING
5th in the UK*

73%

of staff in Swansea's School of Engineering are classed as producing research of world-class or internationally-excellent quality (grades 4* and 3*).

MATERIALS
8th in the UK*

**When the profile for each Unit of Assessment is turned into a weighted average.*

ENGINEERING ADVENTURE

In 1997, engineers at Swansea University worked alongside the team, led by Richard Noble, which broke the sound barrier in the THRUST SSC supersonic car.

School of Engineering

The University's internationally acclaimed experts in Computational Fluid Dynamics and design engineers from the University's Institute of Innovation are now part of the team that is designing and building the BLOODHOUND SSC, which aims to take the Land Speed Record to 1,000 mph.





School of Physical Sciences – Computer Science

WORLD-LEADING PERFORMANCE

JOINT **21st**

Computer Science ranked joint 21st in the UK, with 25% of academic staff undertaking world-leading research.*

The Department submitted all 22 of its eligible academic staff to the RAE 2008.

**When the profile for each Unit of Assessment is turned into a weighted average.*

The University's first Computer Laboratory was founded in 1962 and Computer Science was established as a field of undergraduate study at Swansea in 1967. Today, the Department's main research interests include:

Theory:
Algebraic and Logical Design Methods

Graphics:
Visual and Interactive Computing

Human Computer Interaction:
Future Interaction Technology

Scientific Computation:
Non-Newtonian Fluid Mechanics

WORLD-LEADING PERFORMANCE

School of Medicine



87%

of staff in the School of Medicine were assessed as producing research of international quality or above

Joint 7th in the UK for Allied Health Professionals and Studies (Biomedicine).*

**When the profile for each Unit of Assessment is turned into a weighted average.*

The Institute of Life Science is the £50 million research-arm of the School of Medicine, focused on discovering radical new ways to treat disease and deliver healthcare. 2008 marked the School's first submission to the RAE and is a spectacular result.

INTERNATIONAL EXCELLENCE

WELSH	20% of staff designated world-leading, 45% internationally excellent.
ECONOMICS	15% of staff designated world-leading, 45% internationally excellent.
GEOGRAPHY	15% of staff designated world-leading, 45% internationally excellent.
SOCIAL WORK AND SOCIAL POLICY AND ADMINISTRATION	10% of staff designated world-leading, 50% internationally excellent.

ENGLISH	10% of staff designated world-leading, 50% internationally excellent
HISTORY	15% of staff designated world-leading, 35% internationally excellent.
PHYSICS	10% of staff designated world-leading, 40% internationally excellent.
GERMAN	10% of staff designated world-leading, 40% internationally excellent.

THE WELSH PERSPECTIVE

SWANSEA UNIVERSITY RANKED

1st or **2nd**

in Wales in 24 of the 31 academic subject areas in which it was assessed.

TOP IN WALES FOR:

• Allied Health Professions and Studies (Biomedicine) • American Studies and Anglophone Area Studies • Civil Engineering • Classics • Ancient History • Byzantine and Modern Greek Studies • Development Studies • Economics and Econometrics • French • Health Services Research • German • Dutch and Scandinavian Languages • General Engineering and Mineral & Mining Engineering • History • Italian • Iberian and Latin American Languages • Metallurgy and Materials • Physics • Pure Mathematics • Social Work and Social Policy & Administration.



45%

of the School's research activity is of international (4* and 3*) quality.

School of Law

The School of Law achieved the most dramatic improvement of any law school in the UK, jumping from a grade of 3A and 48th place in 2001 to joint 25th place out of 67 in 2008. In doing so, the School overtook 12 institutions that were graded 5 in 2001.

85%

of Business staff classed as producing research of international quality or above (4*, 3* and 2*) and

60%

of Economics staff were rated world-leading or internationally excellent (4* and 3*).

School of Business and Economics

The School is committed to the pursuit of internationally excellent research and staff expertise encompasses a broad range of topics.

Research interests include human resources, entrepreneurship, finance and risk management, information systems and e-business, labour economics, macroeconomics, marketing, and statistics.

SUPPORTING THE KNOWLEDGE ECONOMY

Working closely with industry enables Swansea's researchers to make a direct and positive impact in the commercial world. The University's Knowledge Economy strategy prioritises support for wealth creation from three broad academic areas: Engineering, ICT and Medicine.

Aggregated across these three areas:

27 Notional number of world-leading staff

64 Notional number of internationally excellent staff

Industrial collaboration also provides vital funding and support for research projects across a range of disciplines.

RESEARCH GRANTS AND CONTRACTS

In 2007/08, the University received **£25.3 million** in research funding

£7.3 million from Research Councils and Charities

£7.0 million from the UK Government and Health & Hospital Authorities

£1.7 million from UK Industry, Commerce and Public Corporations

£5.6 million from EU and overseas organisations

£3.7 million from other sources

(Total research funding received in 2004/05 = £14.1 million)

FAST FACTS

- 52 research centres
- 180 academic appointments since 2004
- Eleven prestigious Research Council UK Academic Fellowships awarded in fields as diverse as Nanomedicine, Computational Biomedical Engineering, Materials Engineering, Computer Science, Physics, Mathematics and Geography
- 1967: Swansea's Professor Olek Zienkiewicz revolutionizes engineering with the publication of *The Finite Element Method for Solid and Structural Mechanics*
- IBM 'Blue C' – one of the world's fastest supercomputers dedicated to life science research
- Boots Centre for Innovation assisting innovators to develop new products for Alliance Boots plc in areas such as pain relief, skin treatments, diabetes and healthy ageing
- Welsh Centre for Printing and Coating – one of the world's top five printing research centres – working with industry to develop roll-up televisions and e-paper
- Excellent track record of collaborative research with industry, including world-leading multinational companies such as IBM, Rolls-Royce, BAE Systems, Airbus, Ericsson and Sony
- Swansea Physicists were part of the first team to create antimatter in the form of anti-hydrogen



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