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Welsh Government

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Science in Wales

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Comparative Performance of Welsh Research Base



The first comprehensive evidence-based analysis of Wales's research activity and relative research impact in the devolution era

Main Findings

With 0.14% of the worlds researchers, Wales produced:

- **0.30%** of the world's published articles
- **0.49%** of global citations
- **0.70%** of the top 1% highest cited articles
- **0.85%** of all references to journal publications associated with patent applications



Outcomes for Wales



Academic Research

Scientific Excellence

Cardiff University UK Rank 6th ; Swansea University 26th

UK Ranking	Category	University
1	Civil & Construction engineering	Cardiff
2	Allied health professions, Dentistry, Nursing and Pharmacy	Swansea
2	Psychology, Psychiatry and Neuroscience	Cardiff
3	Sociology	Cardiff
=4	Allied health professions, Dentistry, Nursing and Pharmacy	Cardiff
=5	Education	Cardiff
6	Physics	Cardiff
=7	General engineering	Cardiff
=7	Sports and exercise sciences, Leisure and Tourism	Cardiff Met & Bangor
8	Clinical medicine	Cardiff
8	Earth systems and Environmental sciences	Swansea
9	Chemistry	Cardiff

And we performed very strongly on the new measure, 'impact'

Impact	4*	3*	2*	1*	u/c
Wales	49%	37%	10%	3%	1%
UK	44%	40%	13%	2%	1%

- This fits with recent evidence from the HEBCIS survey, which shows Welsh universities 'punching above their UK weight' in terms of:
 - Share of collaborative research income
 - Total learner days on Continuing Professional Development (CPD)
 - Share of income from regeneration programmes
 - Share of active spin-out companies

Impact in Wales: 49% rated 4*; 86% 3 or 4* (above UK average)

Uk Ranking	Category	Universities
1	Psychology, psychiatry & neuroscience	Swansea joint 1 st
1	Civil & construction engineering	Cardiff 1 st
1	General engineering	Cardiff joint 1 st
1	Architecture, built environment & planning	Cardiff joint 1 st
2	Allied health professions	Cardiff
2	Sociology	Cardiff
2	Modern languages and linguistics	Bangor
4	Chemistry	Cardiff joint 4th
5	Physics	Cardiff
5	Sport & exercise science, Leisure & tourism	Swansea
6	Psychology, psychiatry & neuroscience	Cardiff
6	Agriculture, veterinary & food science	Aber/Bangor joint submission
6	Sport & exercise sciences, leisure & tourism	Cardiff Met/Bangor joint submission
7	Clinical medicine	Cardiff
7	General engineering	Swansea
8	Biological sciences	Cardiff
8	Geography, environmental studies & archaeology	Swansea
9	Biological sciences	Bangor joint 9 th
9	Geography, environmental studies & archaeology	Aberystwyth
9	Education	Cardiff

But we submitted 26.5 per cent fewer staff to the REF than to the 2008 RAE

	2014 REF	2008 RAE
Number of institutions submitting	8 plus CAWCS	10 plus CAWCS
Number of Category A (FTE) staff submitted	1,896	2,578

Welsh Government Science Strategy

- Increase Research Capacity
- Facilitate Research Success
- Build on Strengths

Sêr Cymru I

£50M funding from Welsh Government for:

- Attraction of world-class scientists (£29M) to Sêr Cymru chairs
- New National Research Networks (£21M)

Ser Cymru

- Create 500-600 science jobs
- Attract £60-100m additional research funding to Wales
- Increase knowledge spill-overs, start-ups, spin-outs, collaboration
- Facilitate innovation and connect industry with scientific excellence
- Help to bring Wales share of RCUK funding to 5% through external funding



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Thank you