

# Headlines

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## ACADEMIA, RESEARCH Universities, mainstay of Spanish scientific output

Universities are the main driving force behind scientific output in Spain, followed by the healthcare sector, according to a report on scientific activity in Spain published this month. The study analyses the volume and evolution of research work in various disciplines, sectors and Spanish regions, which can be compared with the situation elsewhere in the EU.



The University of Barcelona comes out on top of the Spanish scientific output rankings.  
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The recently published report analyses Spanish scientific output based on the number of publications recorded in the Thomson Scientific databases from 1995 to 2003 and provides an overview of the EU country's progress in science and research.

The 'Bibliometric indicators of Spanish scientific activity 2004' was published by the Spanish Foundation for Science and Technology (FECYT) and produced by the research group SCImago, led by Félix de Moya, professor in documentation and vice-rector of New Technologies at the University of Granada.

Universities are the driving force behind scientific output in Spain. In 2003, they generated 65% of the total scientific output, followed by the healthcare sector (26%) and the Spanish national research council (CSIC) with 11%. Scientific output is heavily concentrated in Madrid and Catalonia, accounting for over half of the total in 2003.

The top university in terms of output is the Universitat de Barcelona (UB), with 17 013 articles published (more than 11% of the total). Other universities in leading positions are the Universidad Complutense de Madrid (14 518 articles), the Universitat Autònoma de Barcelona (10 096 articles), the Universitat de Valencia (9 400) and the Universidad Autónoma de Madrid (8 705).

Catalan universities produced over a quarter of Spain's scientific publications (37 751 articles out of a total of 147 699). As further evidence of this region's contributions to the European Research Area (ERA), the Catalan hospital system contributed more than 31% of total Spanish output in 2003, with 19 970 documents out of the 63 838 produced by 59 institutions throughout the southern European country.

### World-ranking university

This updated report analyses national scientific institutions and the patterns of inter-regional, inter-institutional and international collaboration in order to give a clear picture of the current situation of science in Spain. It also maps output on a sectorial, regional and national basis, as well as drawing comparisons with results recorded in other countries.

It defines the patterns of scientific communication between Spanish researchers in the various disciplines, quantifies the output in each sector and its distribution in broad areas of study, and assesses the international position of Spanish research in terms of impact and investment. It also evaluates Spain's research potential at different levels.

"Bibliometric indicators are useful quantitative and qualitative tools for analysing the state of science and technology and also for making decisions regarding scientific and technological policies," according to a statement on the report by Barcelona University.

The statement goes on to say that UB is the only Catalan university in the top 200 ranking of best universities worldwide and in the 100 best in Europe, published by the Institute of Higher Education of the Shanghai Jiao Tong University (SJTU) in China. The Shanghai University report evaluates academic and research performance using a variety of indicators, such as highly cited researchers, articles published, and so on.

Source: Spanish Foundation for Science and Technology (FECYT), Barcelona University

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### More information:

- Barcelona University
- FECYT
- CSIC
- ERA