



press release

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EUROPE PRODUCES MORE SCIENTIFIC PUBLICATIONS THAN CHINA AND THE USA, BUT THE USA STILL LEADS IN TERMS OF EXCELLENCE

Dynamics of Scientific Production in the World, in Europe and in France, 2000-2016, published today by Hcéres, studies scientific output in the world, in Europe and in France. The report devotes special attention to the impact of the growth in Chinese output on bibliometric indicators for other countries. The report thus provides a complement to recent analyses of the positioning of research-intensive countries.

This new report from the Science and Technology Observatory department is based primarily on scientific publications, but also includes indicators for resources dedicated to research and an analysis of the international mobility of Nobel Prize winners.

The main findings to emerge from this study are:

- The global economic powers are also scientific powerhouses. Nevertheless, some smaller countries score more highly in terms of qualitative indicators, such as the impact of scientific publications or number of Nobel Prize winners per researcher.
- In 2016, Europe produced 28,1% of the world's scientific publications, ahead of the United States (19,3%) and China (17,7%), whose share continues to grow. However, the USA still has the highest proportion of most-cited publications (Top 1%) in its total scientific output.
- Over the past 20 years, the USA is the country where the largest number of Nobel Prize winners did their PhDs. The USA also continues to attract Nobel laureates during their careers, both before and after receiving the prize.
- The sharp increase in the volume of Chinese publications has influenced the composition of world publications in favour of chemistry and engineering, in particular. In a world without China, France would appear more specialised in chemistry and the USA would appear less specialised in medical research.
- France ranked 5th by volume of scientific publications in 2000 and stood in 8th place by 2016, below India and Italy, whose total number of publications remains very similar. Of those countries producing more than 10,000 publications per year, France is ranked 12th for the share of its publications that are among the top 1% most-cited publications in the world.
- The rate of international co-publications is increasing globally. International co-publications tend to have a higher impact than national co-publications, but the gap depends largely on the countries or partners involved.

Offering more detailed analyses for the countries which account for the largest share of scientific publications and international prizes, this report is a useful supplement to two existing types of classification: university rankings based on research performance, and rankings which use composite indicators to measure innovation. It contains systematic comparisons between France and a benchmark group of 9 other countries on various dimensions of scientific production.

FIND OUT MORE...

➤ **Download the whole report including data from the figures and tables:**
www.hceres.fr/OSTReport2019

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Hcéres is the agency responsible for evaluating higher education and research entities in France (universities, research organisations, doctoral schools, study programmes), as well as approving the evaluation procedures implemented by other organisations. Through its analyses, evaluations and recommendations, Hcéres accompanies, advises and supports the process of continuously improving the quality of higher education and research in France.

The Science and Technology Observatory is one of Hcéres departments. OST produces indicators and analysis that contribute to the strategic thinking of stakeholders in higher education, research and innovation, to Hcéres evaluations and to the evaluation of public policies.