



UK Science & Innovation Network Summary

Spain

1. Science and Innovation Landscape

Research in Numbers

In 2022 Spain produced 3.1% of global scientific production and 16.6% of all publications in the top 10% based on citations (Source: [FECYT | Indicadores de Producción](#) using Web of Science (WoS)). Spain ranks 29th out of 132 countries in the Global Innovation Index 2022 and is a 'Moderate Innovator' on the European Innovation Scoreboard 2023.

Spain's gross expenditure on R&D (GERD) surpassed €19 billion in 2022, an increase of approximately 12% from 2021, and is the highest ever recorded.

This accounts for 1.44% of GDP in 2022, up from 1.41% in 2021 (EU average in 2022 was 2.23% (Source: [Statistics | Eurostat](#)). This notable increase in funding is not reflected in the percentage relative to GDP due to the GDP growth rebound following the end of the COVID pandemic. From the total Research & Development (R&D) investment, 43.85% came from the public sector (Source: [Cotec](#)).

In terms of research, Spain has real strengths in various key areas such as energy, biomedical sciences and biotechnology, agriculture and food, materials, ICT, energy and the environment. Spain is generating advanced applied solutions for the aerospace, renewables, water treatment, rail, biotechnology, industrial machinery, and civil engineering sectors.

Government Structures and Policies

The main government department is the **Ministry for Science, Innovation and Universities** ([Ministry Organigram](#)). The main funding agencies are the Research Agency (AEI), National Research Council (CSIC), Institute of Health Carlos III (ISCIII), and the Centre for Technological Development and Innovation (CDTI).

The 'Strategy for Science, Technology and Innovation 2021-2027' aims to increase Spain's public and private R&D investment to 2.12% of GDP by 2027. (Source: [Moncloa](#)). Based on promoting talent, research excellence, business leadership and addressing social challenges, and funded through a national agency for research.



This strategy aims to create more opportunities for Spanish scientists to work in industry and engage in international collaboration. It outlines six science priority areas:

- health; culture, creativity, and inclusive society; human security, inequities, and migrations; digitalisation, industry, space, and defence; climate change, energy, and mobility; and nutrition and the environment.

The Government is also working to improve the researchers' working conditions and put in place a plan to recover migrated talent.

Spain has a quasi-federal system, with a National Research strategy and centrally allocated budget, but also parallel regional budgets and strategies across all the 17 autonomous communities. However, the scientific production is concentrated in Madrid, Catalonia, Andalucia and the Valenciana Community (*Source: [FECYT | Indicadores de Producción](#)*). The investment per capita is highest in the Basque Country, followed by Madrid, Catalonia and Navarra (*Source: [Evolución de la I+D - Cotec](#)*).

2. UK- Spain Partnership on ST&I

The strong science base and important R&D activities taking place in centres and institutes around the country make Spain a key partner for the UK.

Collaboration between researchers in Spain and the UK is substantial. **The UK is 2nd in terms of countries with the highest degree of scientific collaboration with Spain, while Spain is 8th for the UK.** Medicine is the area with the most joint publications, followed by physics, astronomy, biochemistry, genetics, and molecular biology. (*Source: [Análisis de la producción científica en colaboración entre España y Reino Unido. 2011-2020 | FECYT](#)*).

Spain was ranked 2nd for the UK as a collaborative partner in Horizon 2020 and the UK ranked 5th for Spain. Spain participated in over 7,500 projects, over a third of which had at least one UK beneficiary. In total Spain received over €6 billion net contributions in Horizon 2020. This was just under 10% of the total EU funding available and placed Spain in fourth position, behind Germany, the UK and France. Most collaborations took place in the areas of Biomedicine and Health, and Physical Sciences and Engineering. Under Horizon Europe, Spain currently ranks 3rd based on finance received and 2nd based on participation.

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