



UK Science
& Innovation
Network



UK Science & Innovation Network Country Snapshot:

Argentina

Argentinian Science and Innovation Landscape

Argentina is rapidly establishing itself as a major global biomedical & agri-tech science player. Innovation reemerged at the heart of the Government's development strategy with the creation of a dedicated Science and Innovation Ministry in 2008 and has remained a top priority for the country since. Argentina spends approximately 0.6% of its GDP on R&D, but when all science and technology spend is included the figure is closer to 1.5%. From 1996-2016, Argentina published 174,968 citable scientific documents in scientific journals, resulting in almost 14 citations per article. This reflects where Argentine research is of a world class standard, predominantly in the areas of: Medicine; Agricultural and Biological Sciences; Biochemistry, Genetics and Molecular Biology; and Physics.

UK Science & Innovation collaboration with Argentina

The Science & Innovation Network (SIN) launched in Argentina in June 2017, as part of our new LatAm Hub (Argentina, Brazil & Chile), following the 2016 joint communiqué signed between UK Foreign Minister Duncan and Argentine Foreign Minister Malcorra, which proposed cooperation in four key sectors: agri-technology, life sciences, advanced materials and nanotechnology, and ICT (with Palaeontology and Marine Sciences also added by agreement of both countries' Science Ministers).

The UK is in joint seventh position in regards to Argentina's international research partners, behind Spain, Germany, France and Italy. Yet, the impact of its UK collaborations is the highest by a significant margin. Within LatAm, Argentina has fallen behind countries such as Brazil, Chile and Colombia in terms of total UK collaborations. Nevertheless, the impact of individual UK-Argentine collaborations, where these occur, is the highest of all the larger Latin American markets.

Argentina is a provider of quality research partners for the UK. Around 700 Argentine scientists are working in UK companies and research institutes, and this historic science relationship stretches as far as Darwin joining the Argentine National Science Academy as honorary member in 1879. More recently, last century, Argentine's three Nobel science laureates: Houssay (Physiology and Medicine, 1949); Leloir (Chemistry, 1970); and Milstein (Physiology and Medicine, 1984) all had strong UK connections.

Knowledge

The University of Buenos Aires is Argentina's top research university, ranked 75 in the 2017-18 QS University Rankings, the highest such placing in the region. Other public universities (La Plata, Cordoba and Rosario) have far smaller pockets of research excellence in which they can boast of UK partners. Semi-private institutes also carry out world class research including the Leloir Institute (biotechnology

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and agritech) and the Balseiro Institute (energy and space), as well as individual researchers part-funded by CONICET, Argentina's research council. CONICET is responsible for the vast bulk of Argentina's international research outreach and was the top ranked government research organisation in LatAm by SCIMAGIO in 2017 (and 158th worldwide) on the basis of research quality, innovation and societal impact.

Technology

Argentina has twice the proportion of the labour force working in R&D compared to Brazil. In Agritech, the government's strategic objective is to supply food to over 600 million people in 2020 (almost fifteen times its own current population). Famed for its cattle, it also has the highest yields globally in soybean, corn and wheat with particular technological progress in the manufacture of agricultural machinery, as well as productive innovations in the area of seeds, food processing and transgenic pastures.

Argentina is the third largest market for pharmaceuticals in LatAm with an annual growth rate of up to 22% in recent years. In biomedical research, UK partners include the Crick Institute, John Innes Centre, and Cambridge, Oxford and Dundee Universities. GlaxoSmithKline uses Argentina as its base for both regional manufacturing and R&D with 10% of its global R&D taking place in Argentina.

Advanced materials and nanotechnology is a growing sector with research strengths in solid state physics and physical metallurgy, as visible in its nuclear plants and near-future lithium application development. Additional strengths are in plastics and catalytic materials; metallic materials and manufacturing processes (as in the automotive industry); materials for energy, including solar energy and fuel cells; and nanofunctional materials applied to biomedicine.

Innovation

Although research is a particular strength, commercial exploitation of this has been limited in several sectors. However, Government support for this is visible in its industrial technology and agricultural technology institutes (INTI and INTA), and the Science Ministry's efforts to see a greater industry percentage of Argentine R&D spend.



Visible successes of this happening have included GSK's Trust in Science programme with the Science Ministry (referred to by its Science Minister as "the Glaxo Model".) Additionally, key Argentine companies such as Bioceres with its cutting edge agricultural biotechnology, the IT company Globant, and the partially state-owned satellite and energy company, INVAP, have become international players in recent years.

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