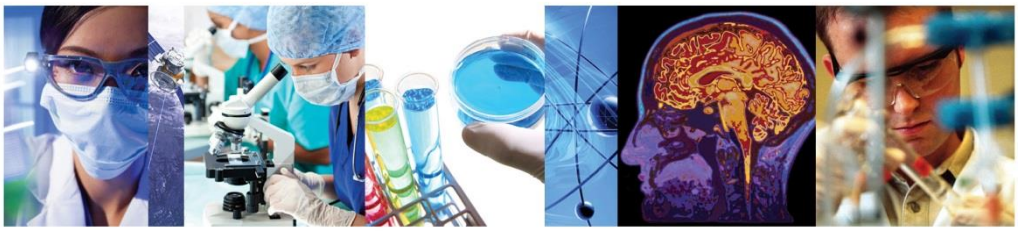
UK Science & Innovation Network



UK Science & Technology Network (STN) Summary: Chile

1. Science and Technology Landscape

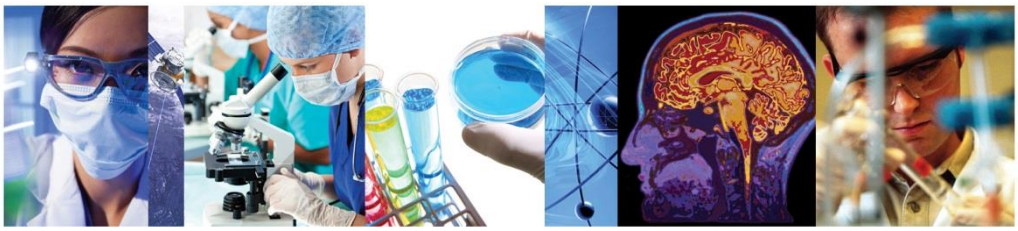
Research and Innovation

Chile's gross domestic expenditure on Research and Development (R&D) has been around 0.36-0.39% of GDP, these past six years, well below the OECD average of 2.7% (OECD). Whilst it also lags behind the OECD mean of 9.4 researchers for every 1000 people (Chile has one researcher/1000 people), Chile's research impact is strong, with a high Field-Weighted Citation Impact (FWCI) of 1.19, indicating that its publications are cited more than the global average; also, leading in publications numbers per researchers and impact in Latin American region (Narayan et al., 2023).

Chile is a global leader in astronomical research, currently hosting 50% of the world's advanced astronomical observatories, a number set to increase in the coming years. Its leadership is bolstered by major astronomical infrastructure projects like ALMA and the European Southern Observatory (ESO). Chile will also host the XXXIV General Assembly of the International Astronomical Union in 2030.

Because of its geography and biodiversity, environmental sciences are also leading areas of research. The country's interest in conservation is manifested through the strengthening of biodiversity management and the recent creation of the Service of Biodiversity and Protected Areas. Chile has one of the largest networks of protected areas in the world, covering approximately 22% of its terrestrial territory.

Chile's commitment to climate goals, as outlined in its Nationally Determined Contributions, underscores its ambition to become a global leader in sustainable development and a low-carbon economy.



Regarding innovation, Chile ranks 51st on the Global Innovation Index 2024 with relative strengths in institutional environment, information, and communication technologies (ICT), and knowledge impact. Santiago is assessed as having a S&T cluster (WIPO). Key sectors driving innovation include green hydrogen, lithium, wind and solar energy, areas where Chile has a competitive global advantage due to its natural resource wealth and geographic conditions.

Government Structures and Policies

Since 2019, Chile has a Ministry of Science, Technology, Knowledge, and Innovation, who is responsible for the development of the national strategy in R&D, as well as national policies and human capital development.

Regarding funding, the National Agency of Research and Development (ANID), an arms-length body of the Ministry of Science, is responsible for basic and applied science, technology, and innovation, and both national and international postgraduate scholarships. Whilst CORFO, the National Corporation for Economic Development, funds innovation projects, from start-ups to big centres with international participation, in areas such as clean technologies, green hydrogen and lithium industry development.

More public institutions created to drive forward science and innovation objectives: the Agency of Cybersecurity, and Public Institutes for Lithium and for Defence Technology Innovation are expected to start operating during 2024-25. Also, recent policy announcements have included AI regulation bill, and the Council for Future and Development.

2. UK partnership with Chile on ST&I

Chile's R&D system is gradually expanding, with a focus on fostering international collaboration, which accounts for 57% of its scientific output. The UK is a significant partner for Chile, being the 3rd largest international collaborator, after the US and Spain (Dataciencia ANID Chile).

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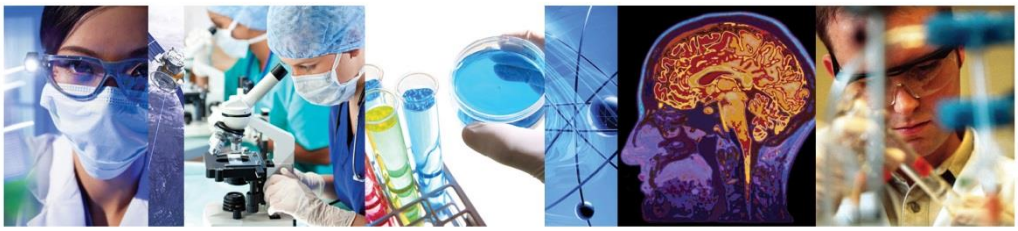

Recently, that collaboration has coalesced around AI regulation (Chile was one of two Latin American countries invited to the AI Safety Summit in London 2023) and data management, among others, where engagements have led to cooperation between the UK and the Chilean National Institute of Statistics (INE), Ministry of Health, and Ministry of Science.

The shared crusades to deal with climate change and biodiversity loss have prompted the adoption of high environmental standards, particularly in mining, and scale-up collaboration in different areas like natural capital and green finances, lithium batteries development, clean energy technologies like offshore wind and green hydrogen production, research and conservation of wetlands and peatlands. All these have ignited the collaboration between the UK and the Chilean Ministries of Environment, Finance, Energy and Mining.

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Chile's proximity to Antarctica makes it a useful logistics and operations partner through its Antarctic gateway town of Punta Arenas. Collaboration between the UK and Chile on Antarctic and Sub-Antarctic science is therefore particularly strong, with strong historical links between the British Antarctic Survey (BAS) and the Chilean Antarctic Institute (INACH). Further there is recent collaboration between the South Atlantic Environmental Research Institute (SAERI), located in the Falkland Islands, and the Cape Horn International Center from Chile (CHIC), to research the impact of climate change in the Sub-Antarctic region.

Regarding the scholarships programme "Becas Chile", the UK universities remain the preferred choice for Chileans to study, being the top destination for post-graduates. The programme contributes not only to strengthening academic ties between the countries, but also to boosting British economy – in 2021, the programme injected an estimated £20 million to the UK.

3. STN contacts

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