



UK Science & Innovation Network Country Snapshot:

Israel

UK serves as Israel's top destination for FDI in Europe:

1st

Israeli start-ups raised 8.2Bn USD in 2019. 2nd in Europe only to UK

2nd

UK is a partner of choice for Israel's scientific community (measure by joint publications)

3rd

Israel - Science and Innovation Landscape

As the 'Start-Up Nation', science and innovation have long been central tenants of the Israeli economy. Israel, a country that makes up only 0.1% of the global population, has **more high-tech start-ups and a larger venture capital industry per capita** than any other country in the world. Israel is recognised as world leader in research and development, it has the **world's highest R&D expenditure as a percentage of GDP at 4.9%** (2018), and has universities in the world's **top 25 in mathematics, computer science and engineering** (Shanghai Ranking).

Early **government policy and intervention from the 1960s** has generated robust innovation grant and investment programmes, and a favourable financial environment for foreign investment, that have led to the country's rich R&D culture, with 89% of R&D investment coming from business. **The World Economic Forum Global Competitiveness Report (2019) ranks Israel 20th overall, and strongest in entrepreneurial culture**, with acceptance for entrepreneurial failure the highest, where companies embrace change the most, and where innovative companies grow the fastest. The country ranks **2nd only to US in ease of finding workers with the right skills and for the availability of venture capital**.

As for SMEs and commercialisation, it is important to note how integrated the university system is with innovation in Israel. Universities must demonstrate their impact on industry and the market-place otherwise they become less relevant. This highly successful technology transfer system of Israel is emulated all over the world.

Israel is considered a leader in **water science, agri-tech, stem cell research, computer sciences, artificial intelligence** (ranking 5th in the Global AI Index) and **cyber**.

National research policy for science and innovation is driven by [The Israel Innovation Authority](#) within the Ministry of Economy, by [the Ministry of Science and Technology](#), and by [the Council for Higher Education](#).

UK-Israel Science and Innovation Collaboration

UK-Israel collaborative research is **three times more likely to be cited than unilateral research by either** (see image 1). **Israel is the UK's top collaborator in the Middle East** (measured by co-authored publications) and the **UK represents Israel's top collaborator after the US in Medicine** (with a higher collaborative citation index over 7), and **3rd collaborator overall**.



Image 1: SciVal UK-Israel co-authored publications 2015-2019



The majority of UK-Israel collaborative research can be viewed in 3 main clusters:

1. **34%** Medicine, Biochemistry, Genetics and Molecular Biology
2. **13%** Computer Science, Engineering and Mathematics
3. **13%** Physics and Astronomy

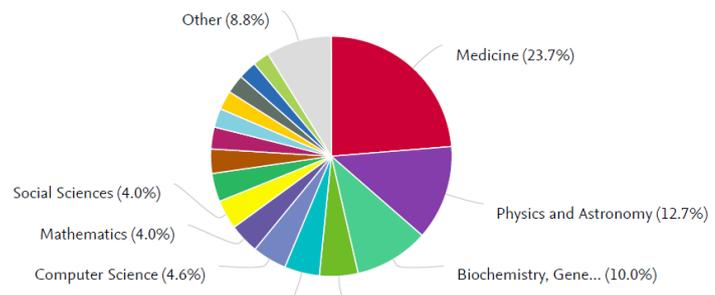


Image 2: SciVal UK-Israel co-authored papers by research area 2015-2019

In Israel, **SIN work with the local science and innovation community** in support of UK policy overseas, leading to mutual benefits to the UK and Israel.

Priority areas for SIN Israel are currently **health, clean growth and emerging technologies** (AI and Cyber). These priority areas are determined based on both countries' national priorities with foreseeable and practical synergies.

Key initiatives include:

<p>BIRAX (Britain Israel Research Academic Exchange)</p>	<ul style="list-style-type: none"> The Britain Israel Research and Academic eXchange is an initiative of the British Embassy and the British Council in Israel Since 2011, BIRAX has raised £13m dedicated to 26 collaborative research projects in the fields of Regenerative Medicine and Ageing BIRAX funded projects have led to FDA approved diagnostics, researchers winning the Israel Prize and cutting edge progress in therapy for Diabetes and Neurodegenerative disease
<p>Innovation MoU (2018)</p>	<ul style="list-style-type: none"> Bilateral programme to support business led R&D collaboration between Israel and UK. Supported by a multi-year £4 million bilateral programme Delivered by IIA & UKRI
<p>Science & Technology MoU (2018)</p>	<ul style="list-style-type: none"> Agreement focus is on creating policy dialogue on research, science and community activities. Research linked to AI, water, agri-tech, food security, bio-technology, renewable energy, cyber-security, advanced materials including nanomaterials and health.
<p>Cross-Border Programmes (Science Diplomacy)</p>	<ul style="list-style-type: none"> The STREAM programme supports trilateral water research projects between the UK, Israel and a neighbouring country (Jordan, West Bank, Gaza, Morocco). The GROWTH Fellowships Scheme supports Palestinian graduates to pursue PhDs in Israel.
<p>WOHL Clean Growth Alliance</p>	<ul style="list-style-type: none"> The Wohl Clean Growth Alliance is a new initiative funded by the Wohl Legacy that aims to further research-related collaborations around water, food and energy Total \$1m fund with maximum \$25,000 grants for collaborative projects
<p>UK-Israel Science Council</p>	<ul style="list-style-type: none"> A body of 25 leading scientists from the UK and Israel whose core mandate is to improve science collaboration between the two countries. Co-Chaired by Lord Robert Winston and Prof. Ruth Arnon the council includes Nobel Laureates, members of the House of Lords, and University Presidents

Case Studies from Bilateral R&D Projects:

- [Intelligent Renewable Energy Management platform for UK market \(RINA Tech UK\)](#)
- [AI for early detection of Osteoporosis \(NHS Greater Glasgow\)](#)
- [Using a breath test to diagnose Parkinson's disease \(with University of Cambridge\)](#)

Contact SIN Israel

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