WK Science & Innovation Network



## UK Science & Innovation Network Summary **Turkey**

## 1. Science and Innovation Landscape

Associated Member of Horizon Europe

Presidency

of EUREKA Programme 2023-24

Most Innovative Country in its Region 2023

3rd

A founding G20 member, Turkey's economy has been growing fast with an increasing focus and central prioritisation of science and technology. Its GDP tripled between 2002 and 2021 and Turkey was the  $19t^{h}$  largest economy in 2023 by GDP.

Turkey's Gross Expenditure on Research & Development (GERD) as a percentage of GDP doubled from 0.56% in 2006 to 1.32% in 2022, with 61.4% from the private sector. Domestic and foreign patent applications in Turkey increased by 262%. This was over the same period. Scientific journal articles originating from Turkey increased by 58% between 2010 and 2020, and Turkey is now ranked 17th globally in terms of scientific publications. The number of fulltime equivalent Research & Development (R&D) personnel has almost quadrupled since 2007. Turkey is ranked 39th in the Global Innovation Index for 2023 and listed in the top three innovators for its region.

In 2018, the Turkish government formed a new Ministry of Industry and Technology and established a new Science Policy Council

reporting directly to the President. The Ministry of Technology and Industry is the major authority that regulates the science, innovation, and technology activities. It determines industrial policies and strategies and policies of science, technology, and innovation in line with economic development, social development and national security objectives.

The Scientific and Technological Research Council (TUBITAK) has been the leading organisation for the management, funding and conduct of research in Turkey. TUBITAK acts as an advisory agency to the Turkish Government on science, technology and innovation in the country. It can be considered as equivalent to UKRI. TUBITAK represents Turkey in international, bilateral and multilateral scientific and technological cooperation activities and ensure coordination in this field. TUBITAK provides national coordination of Framework Programmes including Horizon Europe and Turkey's 2023-24 Presidency of EUREKA Programme. Turkey ranks the second among 48 EUREKA Country Members to participate in the most cluster projects.

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## 2. UK-Turkey partnership on Science Technology & Innovation

The UK-Turkey scientific collaboration is ranked 20th in the world in terms of co- authored publications. 38,425 joint publications, in monographs and journals, were co-authored by UK and Turkish researchers from 2008 – 2018. As per SciVal data from 2018, the main areas of UK-Turkey publications have been medicine (19%), engineering (11%), computer science (7%), physics and astronomy (7%) and materials science (6%).

Under the past Newton Fund (ODA) scheme launched in 2014, 436 awards were given out through 25 different funding programmes in eight years. The total award budget size was almost £30 Million from both sides reaching more than 150 different institutions from almost 60 cities in Turkey. After the closing of the Newton Fund Turkey is now being prioritised under the ODA element of the UK's International Science Partnerships Fund.

SIN Turkey works on developing science and Innovation collaborations and specific campaigns and supports bilateral dialogues to exchange scientific information and best practice. Recent examples of past and current SIN Turkey's activity include:

• Supporting UK Universities in their outreach to Turkey. This to develop their research network at the most prominent research institutions in Turkey, and to influence Turkish research institutions to increase their collaboration with UK Universities.

• Supporting partnerships around critical and emerging technologies such as advanced manufacturing and materials, semiconductors, digital technologies. Building on past project work with the Manufacturing Technologies Centre of the High Value Manufacturing Catapult. Organising of a Global Expert Mission in collaboration with Innovate UK to facilitate new partnerships and commercial opportunities between UK and Turkey institutions in the field of advanced manufacturing and materials.

• Projecting and promoting the UK Science, Technology, and Innovation capabilities, supporting dialogues between UK and Turkey policy makers and researchers on emerging technologies. Such as responsible and trustworthy Artificial Intelligence (AI), hydrogen regulations, net-zero policies or cross cutting priorities like research culture.

• Support UK companies and the catapult network to enter overseas markets through joint research and innovation activities. Following the successful UK-Turkey Agri Food and Drink Market Challenge Team project (early 2021), the Satellite Applications Catapult has worked with SIN Turkey to strengthen the UK-Turkey collaboration. Specifically, around space enabled Agri-tech to increase food security and generate stronger supply chain and trade partnerships. SIN Turkey has supported the Satellite Applications Catapult to establish a Space Enabled Agri-Tech Living Lab consisting of agricultural research institutions in Turkey providing funding for first and second phase projects.

• Maintaining the successful UK-Turkey partnerships throughout the post- Newton Fund era. Collaborating with the Newton Fund Delivery Partners to celebrate the success of the projects funded over the last eight years. Promote UK's new approach on Science, Innovation and Technology through projecting the Integrated Review Refresh, Science and Technology Framework, International Technology Strategy, International Science Partnerships Fund, Quantum Strategy and White Paper on AI.





• Support UK- Turkey researchers and innovators to re-build and maintain their existing collaborations within the EU Horizon Europe Programme and strengthen the partnerships for joint projects.

## 3. SIN contacts

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