SCIENCE|BUSINESS®

Defining a new order for global R&D

The Science|Business Technology Strategy Board

An international forum for expert debate on how science and technology can best be governed in an age of turmoil

COVID-19, vaccine wars, quantum computing, competition in space, artificial intelligence – this has been a tumultuous time for global science and technology. Who should control these amazing technologies? Who profit? How to balance private and public interest, national sovereignty and global good, scientific openness and national security?

The answers to these difficult questions are being debated across the globe – and now is the time for expert, independent analysis and action. Science|Business, a leading Europe-based media company focused on R&D policy, in 2020 launched an international advisory board to start airing these issues publicly. In 2021 and 2022, the work expands with new expert reports and high-profile events to inform public debate from Tokyo to Ottawa, Brussels to Washington.

With the guidance of S&T experts in the Science|Business Network of world-class universities, companies and public sector research organisations, in 2021-22 we examine four of the key emerging technologies that force nations and peoples to rethink how they govern technology development globally. They are quantum, space, climate and health technologies – ever advancing, and ever upsetting our old ways of working and competing.

These topics are studied in-depth in a series of public and private events featuring many of the world's leaders of research and research policy. The work is conducted under the aegis of the Science|Business Technology Strategy Board. This is a group of leaders in the global R&D community with strong interest in, and concern for, the environment for research collaboration. The Board started in 2020 with a core of five leaders from Japan to France; the group is now expanding. Together, they aim for a true, global discussion of these issues of R&D governance: How to promote open science and technology exchange without jeopardising security, privacy or sovereignty. The aim: a truly international perspective that can lead to consensus-driven action.

The Science|Business Technology Strategy Board

In 2020, Science|Business convened five international science policy leaders to open public debate on these issues of competition and cooperation in technology. The group is moderated by Richard L. Hudson, editor in chief of Science|Business and former managing editor of the Wall Street Journal Europe. The board's founding members:

Maria da Graça Carvalho
Member, European Parliament

Yuko Harayama
Executive Director, Riken

Stefan Kaufmann
Member, German Bundestag

Antoine Petit
Chairman & CEO, CNRS

Luc Soete
Former Rector Magnificus, Maastricht University

For this work, Science|Business also draws on the expertise of its 70-member network of world-class universities, companies and research organisations, to produce a series of white papers. We take no position ourselves; we are an independent group of science and policy journalists and communicators. Instead, our intention is to provide the public platform and the well-balanced reports that can best inform the global conversation.

Planned events & reports

- **Quantum technologies**. Across the globe, governments now realise the potential disruptive effect – for good and bad – of quantum computing and communications. Is it too sensitive a technology on which to collaborate internationally? What would be the impact, on global security and economy, of locking up these technologies inside secure national programmes – compared to developing them cooperatively among allies?

    o **8 September 2021**, Brussels and online, as part of the Science|Business conference "Cooperate or compete: what's the new normal for global R&D?"

- **Space technologies.** ·In the past few years a space race has restarted involving nations and companies alike. Do we need a new global treaty on space exploitation? Should we devise new IP laws or conventions governing what private companies can do? How can nations cooperate in space, while also uneasy about the militarisation of space?

    o **9 November 2021,** Washington and online.

- **Climate technologies**: Hydrogen, fusion, carbon-capture and other emerging technologies will upend the global energy industry – hopefully for the good of the planet and climate. But who should own these technologies? Should there be special license waivers for the developing world? What's the right split between public and private investment and ownership?

    o **8-9 February 2022,** Brussels and online, as part of the Science|Business Network annual meeting.

- **Health technologies**: We have seen the amazing results of global R&D on COVID, with billions now vaccinated barely 18 months from the disease's first appearance. How can we replicate this triumph of science cooperation in other areas of healthcare – if only to stop the next pandemic before it gets started? What are the arguments for and against patent waivers?

    o **Spring 2022,** Montreal and online**.**

- **Towards a new global R&D order**. Summary conference, across sectors and technologies, with full report weighing the opposing policy options.

    o **Sept or Oct 2022,** Brussels, Washington and online.

In addition, board members will meet privately by mutual agreement to discuss upcoming activities. For more information about the board and its activities, contact us at tsb@sciencebusines.net.

> **The pandemic, "has put a strong spotlight on, and amplified the already existing tension between, two conflicting priorities: the need for openness and the need for security. We need to rethink the way we handle global research and innovation."**
> TSB member, Stefan Kaufmann, a leading member of Germany's Bundestag, February 2021 ScienceBusiness conference.

Past activities of the Technology Strategy Board

Conference 8 September 2020: "Industrial R&D: Europe first?"

Report 15 September 2020: "What is tech sovereignty?"

Private TSB meeting: 13 November 2020

Private TSB meeting: 15 January 2021

Declaration and conference 22 February 2021: "Open and closed: A call to rethink the way we handle global research and innovation" (presented at "R&I in Recovery: What can Horizon Europe deliver?"