

Open and closed: A call to rethink the way we handle global research and innovation

A declaration initiated by the Science|Business Technology Strategy Board

Today we are confronted by a multitude of urgent global challenges. Issues of health, wellbeing and inequality have been laid bare during the pandemic; and our collective responsibility to address climate change becomes ever more pressing. One thing is clear: to handle these issues, research and innovation are critically important. No science, no vaccines. No technology, no jobs and no wellbeing.

Yet it is also clear that our progress is hampered by the need to find a balance between two conflicting priorities – a need that must be addressed urgently at the international level.

On the one hand, we want open science and open competition. We want the results of publicly funded research to be publicly available, so science can advance faster and researchers in different countries and different sectors can collaborate more easily. Furthermore, we want global markets free for the best and most efficient ideas to win.

On the other hand, we also want security – of vaccine supply, of technical know-how, of jobs, health and social security. Around the world, leaders talk of ‘strategic autonomy’ or ‘technology sovereignty’ and a need to ensure home-grown innovations get applied first at home. In business, we observe companies wanting to protect valuable intellectual property, because innovators also need to feel safe and secure.

We see these two needs – openness and security – in greater conflict than ever before. And this conflict will only deepen as quantum computing, artificial intelligence, gene editing and other strategic technologies are deployed around the world.

How we find the right balance between these two conflicting priorities affects many other decisions we must make. We need to urgently address how we can strengthen our research base and how we apply it in ways that guarantee equitable, humanitarian and sustainable solutions to the global challenges we face. We must harness and regulate emerging digital technologies purposefully and fairly. We must develop creative approaches to infrastructure development and find imaginative ways to share our work for the common good.

Therefore, we urge a new, global effort to mobilise our collective intelligence to re-think what in science and technology we call open, and what closed; on what is public, and what private; on what is for all humanity and what is national. The first brick in what is now a global IP system was laid in 1883. Since then, science, technology and our global needs have changed mightily. The blinding speed of science and technology now forces us to rethink how we draw these difficult lines between protected and open innovation.

We the undersigned, in our personal capacities rather than on behalf of our institutions, call on leaders from around the world to begin a global effort to update the principles by which we share or keep our innovations. We do not know the answers yet. But we know the questions, if left unanswered, will threaten global prosperity – and, as the current pandemic suggests, our very survival. Therefore, science, industry, politics and civil society need to join forces and develop agreed principles for conducting global R&I in the 2020s and 2030s.

Signed

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Members of the Science|Business Technology Strategy Board, a forum for exchanging views, identifying strategic priorities and setting recommendations on urgent questions of international science and technology policy.

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