

TECHNOLOGY COOPERATION IN AN ERA OF MULTIPOLARITY

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Openness has led to the development of other parts of the world. In the early 2000s, the abbreviation BRICS was coined referring to Brazil, Russia, India, China, and South Africa. These countries represented a set of countries that were emerging on the world stage as significant economic and political actors. A common Western notion was that the increased openness and exchanges would drive the world in a more democratic direction. Such a development could be seen in quickly developing countries in the latter half of the 20th century, including Japan, Korea, and Taiwan. 20 years into the millennium shift it is now obvious that the world is moving in a different direction.

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In the past 30 years, the world has experienced significant changes. The Cold War came to an end with the fall of the iron curtain, which set the stage for a globalization wave dominated by U.S.-European norms. The era has been characterized by an increased international openness based on a neoliberal order, in trade and scientific exchanges, and an ensuing interconnectedness.

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20 years into the millennium shift it is now obvious that the world is moving in a different direction. According to V-Dem, 70 percent of the world's population lives in dictatorships,¹ including electoral dictatorships, and the democratic part of the world has gradually decreased. Even in the United States, often seen as the high point of democratic governance during the 20th century, the political system has eroded some of its democratic institutions, especially during and in the wake of the Trump presidency.

After the collapse of the Soviet Union, another superpower has arisen, namely China. 20 years ago, the country was still characterized as a developing country, but authoritarian China is today seen as one of the nodes in the global power balance, alongside the United States and Europe.

It has been clear that China has gained significant influence in many parts of the world. For example, the Belt and Road Initiative, China's massive investment and infrastructure project has created strong ties to Africa and Asia. China is also exerting its influence through trade and investments in Europe and the United States. This has created strong responses from the Western world, as well as in many parts of Asia, raising tensions between countries.

1) Vanessa A. Boese, Nazifa Alizada, Martin Lundstedt, Kelly Morrison, Natalia Natsika, Yuko Sato, Hugo Tai, and Staffan I. Lindberg. 2022. Autocratization Changing Nature? Democracy Report 2022. Varieties of Democracy Institute (V-Dem).

A multipolar world imposes substantial challenges to international exchanges, especially in the fields of technology, innovation, and economic exchange. With the absence of a monolithic force driving the norms of interaction, and a rule-based order increased tensions are noticeable between advanced nations. In short, the multipolar power dynamics challenge the Euro-American hegemony, which has exacerbated global political tensions. At the same time, the world is facing existential threats caused by men, such as climate change, environmental deterioration, energy, and pandemics. These threats inherently need to be solved globally and in the interaction between countries. An issue growing in complexity is how countries collaborate amidst changing power dynamics and rising apolarity.

Bibliometric data shows that military alliances do not generally dictate collaborative patterns in science or technology. The patterns seem to be much more decided by considerations related to scientific opportunities, resource complementarity, and individual drivers. However, in an era where national and global security concerns as well as nations or regions' global competitiveness are taking precedence on the political agenda in many countries, the impact is seen in the technological and scientific spheres. As competing advanced nations are also racing to champion certain technological fields, decoupling efforts have started to take place. This is particularly obvious in fields such as semiconductors, AI, or 5G. Much of the decoupling seen in these areas are about building buffers between China and the United States. The Chips and Science Act from 2022 enacted by the United States Congress have particularly set the stage for additional regionalization and strategic alliances in science and technology.²

During the Chinese Communist Party's 20th national congress that ended on the 23rd of October 2022,³ it is also clear that Secretary General Xi Jinping has consolidated his power. Much of China's ambition follows an already made-up path towards increased self-reliance, technological development, and increased innovativeness. The structural concerns in China such as the older population, high levels of private and public debt, as well as risk for increasing social instability, including tougher authoritarian controls on companies as well as individuals endanger the progress in science and technology.

2) The White House, FACT SHEET: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China, 9 August 2022. https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/?utm_source=link

3) Press Centre, 20th National Congress of The Communist Party of China, People's Daily Online, 2022. <http://20th.cpcnews.cn/english/index.html>

The developments seen between these global juggernauts of science and technology have been described and followed by many analysts. However, how this recalibration of activities is impacting other countries is also of integral importance. As the world is heading towards a multipolar order, the technological/scientific (sub)fields advanced countries are seeking to isolate are also areas, which they seek collaborations with actively. Collaborating with “like-minded countries” has become increasingly addressed in policy documents. The term like-minded is fluid and has been addressed in the intersection of notions such as democratic values, security, global challenges, or reciprocity. This of course sets the stage for various conflicts.

Moving forward it will be obvious that the distinction between democracy and autocracy is a little too simplified. But what the world will be seeing more of will be the technological competition between the United States and China. What role other regions will play is unclear. The European Union has taken a position obviously closer aligned with the United States, but the notion of strategic autonomy also sets the ambition for a Europe not too dependent on others in the spheres of technology and innovation. The European Union has also launched the largest framework program in the world for research and innovation funding to advance Europe further. The program for 2021-2027, Horizon, Europe, amounts to over 100 billion Euros.

As for countries such as the United Kingdom, Australia, Japan, and Korea, the trend is that they will further their links with the United States in the areas of security, technology, and innovation. The Indo-Pacific region, excluding China, nonetheless is not by any means a monolith. India is moving towards a more authoritarian direction and nationalistic tendencies have also made its foreign relations more capricious.

Given the developments described above the next few years will see increased tensions and attempts at regionalization as well as fractionalization of technological development. Global coalitions will become more impacted by security concerns at a time when the world is stuck in the interdependencies formed by globalization and global challenges.