EUROPE IN THE NEW GLOBAL LANDSCAPE

A global leader in green innovation
According to the European Investment Bank, the EU has been a global leader in green innovation. In 2017, the bloc registered 50% more patents in green technologies than the USA and the gap was even wider (76%) for patents combining green and digital technologies (Figure 9.12) [EIB, 2021].

Although the top global companies for digital innovation are largely American, the top innovators for technologies that combine green and digital elements tend to be European. European firms are less likely than US firms to have adopted digital technologies but more likely to invest in measures for mitigating or adapting to climate change. The share of firms that make green investments and are also digital adopters was also marginally higher in 2019 in Europe (32%) than in the USA (28%) [EIB, 2021].

Technological sovereignty: a new concept for the EU
The strained relations between the USA and China over trade, technology and, ultimately, ideology, power and influence threaten to usher in an era of reduced flows of global knowledge and technology, interlinkages and co-operation. Both the USA and China are increasingly emphasizing the need to reduce their intertwinement not only with one another’s markets but also with one another’s research and innovation systems. The resulting decoupling of the world’s largest economies and scientific powerhouses will have widespread ramifications for the rest of the world, including Europe.

In line with the government policy of reducing dependence on foreign technology (see chapter 23), China’s exposure to the world in terms of trade, technology and capital has been declining (McKinsey, 2019). This trend is also illustrated by the significant drop between 2006 and 2016 in the share of foreign co-inventors among Chinese patents registered through the Patent Cooperation Treaty. According to this measure, China’s participation in international technological co-operation has declined considerably, even as this form of co-operation has risen in the EU and the USA. Consequently, China’s share of total technological production is now considerably lower than that of the EU or USA (EC, 2020a, pp. 401–402).

The looming decoupling and confrontation over technology between the USA and China might force Europe and other parts of the world to choose between two increasingly separate realms of technology, such as with regard to telecommunications, digitalization, AI and the Internet. Alternatively, the rest of the world could decide to safeguard its participation in both realms but this would be an extremely costly and inefficient option.

Decoupling, growing conflicts over technological superiority and a progressive retreatment from international collaboration in science and technology – driven, again, primarily by the USA and China – have also given rise to a related concept, that of technological sovereignty.

In a recent report, the European Commission highlighted the importance of safeguarding Europe’s technological sovereignty and strategic interests in trade and technology in areas like AI and related digital technologies and infrastructure (EC, 2020a, pp. 21–24, 452 and 504). Recognizing that the strained relations between China and the USA have reshaped the geopolitical landscape, it cautions that “[i]nternational technological co-operation policies need to be put into a wider perspective of changing global approaches to trade and technological sovereignty’ (EC, 2020a, p. 391).

The President of the European Council has emphasized the importance of European strategic autonomy, arguing

| Box 9.5: The European Universities Initiative: developing a sense of belonging |

The current ambition of building a European Education Area by 2025 is rooted in the Bologna Process launched by the EU in the eponymous Italian city in 1999, which set out to harmonize standards for university qualifications across Europe.

In September 2020, the European Commission laid out a pathway for taking this process to the next level in a Communication on the European Education Area. In addition to qualifications being recognized across the EU, the vision is for everyone to be able to access a high-quality education, for study abroad and the knowledge of at least two foreign languages to become the norm and for Europeans to identify as such through a strong sense of belonging and familiarity with Europe’s cultural heritage and diversity.

It was in this context that the European Commission launched the European Universities Initiative, in line with the conclusions of the EU’s Gothenburg Summit on education and culture in December 2017.

The aim of the initiative is to create networks of tertiary institutions to boost student mobility between EU countries and develop joint curricula. The European Universities Initiative has been co-developed by universities, student bodies, member states and the European Commission.

The ultimate goal is to create a European inter-university campus, whereby students will be able to obtain a degree by combining their studies in several EU countries.

So far, the European Commission has launched two calls which have led to 41 European University alliances involving more than 280 institutions, each of which has received up to € 5 million.

Although the initial funding was clearly earmarked for education and student, teacher and administrator mobility, these alliances have also benefitted from preferential or targeted funding for joint research and research infrastructure.

Source: compiled by authors; see: https://tinyurl.com/ycto2zta

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