As Open as Necessary?

Research Security, Academic Freedom and the Geopolitics of Science

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Vetting international students and researchers, screening funding sources and collaborations or restricting fields with dual-use potential – in a world of intensified geopolitical tensions and fierce competition over technological leadership, science and research have moved to the very heart of national security concerns. Within the EU, "research security" has become a key pillar of the broader strategic autonomy agenda (see here), with the Council now proposing a recommendation on the topic. The term covers measures to protect scientific activities from misuse and undue influence by third parties, whether states or non-state actors, such as scientific espionage, IP theft, cyberattacks, and dual-use challenges (see pt. 1 of the draft recommendation). National governments are also moving: the Netherlands, for example, has tabled a bill that creates a legal basis for screening researchers and Master's students working with "sensitive knowledge" (see here).

While the goal behind this "securitisation" is to protect scientific research against external threats – as such a legitimate aim – this attempt paradoxically creates new risks by subjecting research to political control measures. The "research security" narrative furthermore illustrates how closely research today is tied to state security agendas and market-driven innovation logics, subordinating it to political and economic ends. This also risks undermining the autonomy of scientific research.

Against this backdrop, I ask what securitisation means for the interpretation of Article 13 of the EU Charter of Fundamental Rights (FCR). My argument is that academic freedom and the autonomy of science require protection not only against direct state interference, but also against the more subtle colonisation of research by political and economic systems.

The proliferation of "research security" in Europe

Among the measures numerous European universities, research funders and governments have begun to introduce around the topic of research security (for an overview see here and here), the mentioned draft EU recommendation on enhancing research security is the most encompassing. Its background is a changed geopolitical environment, as becomes clear from the explanatory memorandum. Addressing "hostile economic actions, cyber and critical infrastructure attacks, foreign interference and disinformation", the document highlights the particular vulnerability of the research and innovation sector, where there is the risk that rivalling countries might "use emerging and disruptive technologies to boost their political, economic, and military positions [.]" (on p. 1).

Against this background, the draft sets out principles for "responsible internationalisation", asking Member States to pay particular attention to certain technologies that are identified as particularly critical at EU level: advanced semiconductors, AI, quantum technologies, and biotechnologies. Concretely, it invites governments to adopt national action plans (principles, pt. 2); create Research Security Advisory Hubs (pt. 3); strengthen export-control and sanctions compliance, including for intangible technology transfers (pt. 9); and share tools for tackling foreign interference via the EU one-stop platform (pt. 10). It also calls on research funders to make research security part of the grant application process and to subject "red-flag" projects to proportionate risk appraisal (pt. 13). Research-performing organisations are asked to build internal procedures, including physical and virtual compartmentalisation for sensitive labs, data, and infrastructures (pt. 14(h)). At EU level, the text

foresees a European Centre of Expertise on Research Security (pt. 15(b)).

Open Science meets the security state

While motivated by the goal to protect research taking place in Europe, today's research security agenda sits uneasily with long-standing ideals of science. For generations, science has been portrayed as a universal public good, knowing no borders and thriving on the widest possible sharing of knowledge. This ethos was famously captured by sociologist Robert K. Merton, who described the scientific ethos in terms of norms such as universalism and communalism (see here, pp 270). In his words, "secrecy is the antithesis of this norm; full and open communication its enactment." (p. 274) From this perspective, attempts to fence off research findings, whether for private gain or national advantage, stand in tension with science's own self-understanding.

Of course, these values have always been ideals more than realities. Merton wrote his essay about the normative structure of science during WWII, when science was deeply entangled with war efforts. In a time when there was public debate about whether science should serve the state, the market, or remain autonomous, Merton sought to clarify what makes science distinctive as a social institution.

The current developments also strongly evoke Cold War-era logics, when security-led priorities dominated research. In the US in particular, a government–industry–university Big Science complex emerged, mobilising research for national defense purposes. To stay ahead in the race, governments ring-fenced science via classification/compartmentalisation, vetting, export controls, and counter-espionage (on Cold War science see e.g. here). Washington even weaponised and politicised freedom of research itself – touting it as proof of Western science's superiority vis-à-vis Soviet Lysenkoism (see here).

The close entanglement of science with national interests – military, economic, and political – is therefore nothing new. What does seem different today, however, is the extent to which values like freedom and openness have become embedded in the scientific self-understanding, in a research landscape where collaborations typically span entire continents. Merton's norm of communalism finds its contemporary expression in the concept of Open Science: the idea that the potential of the internet should be leveraged to make research, from data and code to publications, broadly accessible, at least when publicly funded. Open Science is now firmly anchored in European science policy and has become part of its standard vocabulary. The current draft recommendation also affirms the commitment to openness, but in light of the new geopolitical realities, it introduces a modification: research should be "as open as possible, and as closed as necessary" (principles, pt. 2).

The politics of openness

On paper, the EU document acknowledges that research security stands in tension with other recognised values and principles, above all academic freedom and Open Science (the term academic freedom is mentioned 19 times in the draft). It also concedes that the internationalisation of science has advanced further than ever before and is now part of the very DNA of contemporary research.

At the same time, however, the commitment to openness and freedom reflects a strikingly instrumental logic. These values are to be protected not as ends in themselves, but because they are believed to drive scientific progress and deliver tangible – and often marketable – outcomes, thus ultimately serving political and economic agendas. The research security narrative thus evidences the extent to which the presence of political and commercial interests is normalised today in science policy. Openness and academic freedom are justified because they deliver innovation and competitiveness – "world-class research and innovation" (preamble) – not because of their intrinsic value.

Considering the backdrop of the current geopolitical pressures, this may not sound alarming, even reasonable to some. But what makes this framing problematic is that it forms part of a broader economisation and politicisation of research in times of the "managerial university" and an increasing dependence

on private sector funding (see on the latter, for example, the 2024 *Academic Freedom Monitor* report by the European Parliament). A recent study by the Royal Netherlands Academy of Arts and Sciences underscores this point, with funding requirements from both government and industry cited as key sources of constraint. As the Academy observed: "Good science requires freedom: research produces the best knowledge – independent and trustworthy – when it is free from outside interference." The emerging discourse on "research security" risks not only reflecting these trends but also reinforcing them by giving them a new sense of urgency.

Research security under Article 13 CFR

How should this development be assessed in light of the EU's constitutional guarantees? Article 13 CFR enshrines the freedom of the arts and sciences, yet it has so far played only a marginal role in the Court's jurisprudence and remains underdeveloped. As the introduction (see here) to this symposium already noted, the judgment in *Commission v Hungary* nevertheless marks a turning point.

In that case, the ECJ recognised that academic freedom under Article 13 CFR comprises at least three dimensions. First, an individual dimension, which protects the freedom to research and teach, freedom of expression and action, and the freedom to disseminate knowledge and truth without restriction (para. 225). Second, an institutional dimension, namely the autonomy of universities, which the Court regards as a necessary precondition for individual freedoms (para. 227). Third, the Court pointed to positive obligations, requiring states to protect higher education institutions "from threats to their autonomy coming from any source" (para. 227).

Applied to the draft recommendation on research security, this framework makes clear that "hard" measures such as restricting collaborations, screening funding sources, or vetting international students raise concerns under both the individual and institutional dimensions. Needless to say, there is a real danger that the security narrative, under the guise of protection, bears potential for authoritarian abuse and measures to control and censor academic activities. For similar reasons, the above-mentioned Dutch "knowledge security" bill already prompted reactions from the academic community. The Dutch Royal Academy in the already cited report considers the bill a limitation of academic freedom, and a consortium of ten research institutions in a joint statement expresses its concern that the law will "worsen the research climate in the Netherlands". Any such measures will thus have to meet the strict necessity and proportionality requirements of Article 52 CFR. Institutional autonomy also demands that universities must play a decisive role in shaping and applying security measures.

The third dimension is also relevant for the present debate, however. As argued above, the draft recommendation reflects an increasingly instrumental conception of science, valued primarily for the economic and political benefits it delivers. While this may not amount to a direct restriction of academic freedom, I submit that it risks subtly, yet profoundly eroding the autonomy of science as an independent sphere of society. *Commission v Hungary* can and should be interpreted as leaving room for understanding the instrumentalisation of science as a "threat coming from any source" against which states are obliged to provide protection.

Conclusion

The emerging EU research security agenda thus provides a response to a genuine concern with espionage, interference and misuse. But it also carries the danger of restricting the freedom and autonomy of research – on the one hand, by introducing control measures and restrictions, and on the other by presenting openness, collaboration and even academic freedom as values to be safeguarded only insofar as they deliver political or commercial benefits. This sits uneasily with the vision of science as an autonomous field and with the guarantees enshrined in Article 13 CFR.

Seen from this perspective, the challenge is not simply to strike the right balance between openness, freedom and security. Academic freedom also requires positive commitments to uphold science as a public

good. One important aspect in this is stable and predictable funding that is not tied exclusively to short-term political or economic objectives. As the Dutch Royal Academy puts it, what is needed is room for "'unfettered' research, motivated by the scientist's curiosity" alone. This thus means defending the idea that the value of science lies not only in producing useful innovations, but also in the intrinsic pursuit of knowledge. If the freedom of science is protected only when it serves external ends, then it ceases to be freedom at all.

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