



Europe in the Geopolitics of Technology Connecting the Internal and External Dimensions

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► Key takeaways

■ Europe is seeking to enter the global technology competition as a fully-fledged player to reap the economic, social and security benefits of the ongoing transformations, and to respond to the challenges posed by both digital authoritarianism and unrestricted big tech companies.

■ This calls for a dual set of policies, some internally focused, and others underpinning Europe's external action. The EU and its member states have made notable progress on the domestic front over the past three years, while the foreign policy dimension is only now emerging.

■ The transatlantic relationship is key to Europe's external tech policy. A challenge is to settle disagreements on data protection, big tech regulation and AI ethics, while at the same time trying to push a common agenda globally.

■ Europe must also find its place among many other more or less inclusive international cooperation and governance frameworks put forward to define norms, standards and ethics.

EUROPEAN INTERNAL TECHNOLOGY POLICY: WORK IN PROGRESS

As a result of **growing US-Chinese technology competition** and early lessons of the Covid-19 crisis, the past 3 years have seen an expansion of the European Union and Member States' ambitions concerning critical technologies, in particular in the digital domain. In entering the global technology competition, however, **Europe has been faced with three difficulties**. First, while the US and China are engaged in a bilateral race, Europe **needs to address simultaneously the challenges stemming from American and Chinese technology policies, which are quite different**. Second, being a fully-fledged actor in the global tech competition requires a **“whole-of-government” approach**. States need to combine economic, industrial, military, and regulatory actions and decisions to conduct consistent and effective tech policies. By contrast, **the EU, as a hybrid polity, has a hard time implementing consistent strategies across all Member States**. Thirdly, there are **paradoxes to Europe's power**. As an economic power, the EU is at the same level as the US and China: it has global influence on trade practices and flows, and international standards. However, as a technological power, Europe's Member States have more in common with Japan, South Korea, India, or the UK: while it hosts leading capabilities and world-level players in some areas (telecoms, satellites and launchers, undersea cables, and super-computers), it is fragmented and home to no large Internet platforms like the GAFAM or BATX.

Despite these challenges, **the EU and its Member States have been taking an array of measures** aimed at creating the conditions for a regulated yet thriving digital economic space within the EU, supporting EU-based companies and innovation, protecting strategic critical infrastructures and assets, and securing supply chains. These all remain work in progress and are not evenly implemented across the EU, but they are gradually expanding.

Europe must address challenges from both US and Chinese technology policies

Firstly, the EU has sought to protect individual and industrial data, while unifying the European digital market and fostering a thriving digital economy. It has now become a global standard-setter on individual data privacy, as illustrated with the General Data Protection Regulation (GDPR). Today, a goal is **curbing the dominant position of US “big tech” companies** in Europe due to their problematic practices. The **Digital Services Act (DSA)** and the **Digital Markets Act (DMA)**, currently negotiated in Brussels, aim to address both sets of challenges, by ensuring that fundamental rights are protected online, and correcting the gatekeeping power of large digital platforms. It is hoped that a fairer and more diverse digital market will increase e-commerce and wealth creation within the EU, and support the emergence of European companies. Related to this is **the ambition to support the development of Europe's digital infrastructure**. Indeed, European companies now

depend on US service providers for 90% of their data management.¹ This poses risks in terms of control over third party access to data, espionage, cyber threats, and security of access. With the launch of **Gaïa-X**, under Franco-German leadership, for instance, the objective is to offer new levels of protection for industrial and institutional data, through a European federated data infrastructure project – or “sovereign” cloud.

The EU has also been taking steps to address its competitiveness and innovation problem in critical technologies. Europe as a whole has been lagging behind and the loss of the UK is a further blow to the EU’s innovation base in areas such as artificial intelligence.² Several funding schemes have been created or adapted at the EU level to support “disruptive innovation”. This includes the **European Innovation Council**, endowed with €10 billion for 2021 to 2027. The EU will also dedicate 20% of the **Covid-19 recovery package** to digital transformation. The Commission’s “**Digital Compass**” (March 2021), identifies the lines of action, including in quantum computing (with a target for 2025), edge computing, and blockchain. Finally, the “**Action Plan on Synergies between Civil, Defense and Space industries**” (February 2021) will foster cross-fertilization among EU programs for technologies with multiple applications (e.g., space traffic management).

10 EU Member States still have no national FDI screening mechanism

Other measures aim at protecting key infrastructure and industry from risky takeovers and foreign investments.

When, in late 2016, Chinese investors acquired the German robot-maker Kuka and then (late 2018) three of Sweden’s most advanced semiconductor companies, such examples fueled concerns: FDI here was aimed at increasingly strategic, high-tech sectors, which could occur to the detriment of European economies, especially given the lack of reciprocity in terms of openness to FDI.³ The EU’s **FDI screening** regulation (operational since October 2020) and “**5G Toolbox**” (published in January 2020) encourage Member States to assess risks and protect their national assets and infrastructure. Still, the ultimate choice to accept or reject a foreign investment remains within national capitals, which have different degrees of sensitivity. Revealingly, in early 2021, 10 EU Member States still did not have national FDI screening mechanisms.⁴

Finally, the pandemic has brought to the fore the risks associated with internationalized value chains and foreign dependencies in diverse sectors. A new area of effort has thus been the examination of supply chain resilience and the development of alternative to single-supplier dependency. In particular, the EU is

1. European Commission, “2030 Digital Compass: The European Way for the Digital Decade”, March 9, 2021.

2. E. Brattberg, R. Csernatoni and V. Rugova, “Europe and AI: Leading, Lagging Behind, or Carving Its Own Way?”, Carnegie, July 2020.

3. E.-A. Martin, “L’Union européenne va-t-elle se laisser acheter ? Le filtrage des investissements étrangers en Europe”, *Études de l’Ifri*, March 2019; J. Hellström, O. Almén and J. Englund, “Chinese Corporate Acquisitions in Sweden: A Survey”, FOI Memo, December 2019.

4. D. A. A. Reisman, “The EU and FDI: What to Expect from the New Screening Regulation”, IRSEM, Research Paper No.104, August 31, 2020; EU Commission, “List of Screening Mechanisms Notified by Member States”, last updated February 2021, available at: www.trade.ec.europa.eu.

dependent on imports for day-to-day products, from IT equipment to medicine, but is also dependent in energy and raw materials. The EU depends largely on China for automatic data processing machines, telecommunications equipment and electric power machinery – as more than 30% of such EU imports from China.⁵ Europe has a high level of single supplier dependency for raw materials, including on China for 98% of rare earth imports.⁶ To make up for these dependencies, the EU launched the European Raw Materials Alliance in September 2020, an industrial initiative aimed at finding alternatives to single supplier dependency. In some sectors, one alternative is to produce locally: in the March 2021 *Digital Compass*, the Commission stated its ambition to have a manufacturing capacity in microprocessors of at least 20% of world production in value by 2030.⁷

THE EXTERNAL DIMENSION: ADAPTING INTERNATIONAL PARTNERSHIPS

Overall, Europe has taken important, internally focused measures in recent years to further its digital, or technological sovereignty. These are increasingly coming together with an external action that links technology to other dimensions of foreign policy, from alliances to security partnerships and from trade to foreign aid.

A new transatlantic agenda

Technology became increasingly central in the transatlantic relationship over the course of the Trump presidency, as global competition has grown. 5G networks became a foreign policy priority, as illustrated with the US’s “Clean Network” initiative to exclude Chinese companies from 5G infrastructures allied countries.⁸ In February 2020, Defense Secretary Mark Esper warned US allies that intelligence cooperation could be at risk if countries did not find alternative providers.⁹ Now, despite the pressing or even coercive attitude of the Trump administration, European governments and businesses were concerned with US restrictions on access to critical inputs like semiconductors and software and rejected the **Trump’s “decoupling” strategy**.¹⁰ And American businesses were indeed just as concerned.¹¹

5. D. Fiott and V. Theodosopoulos, “Sovereignty over Supply? The EU’s Ability to Manage Critical Dependences while Engaging with the World”, EUISS, Brief No.21, December 2020.

6. *Ibid.* See also U. Von der Leyen, Opening speech by President Von der Leyen at the EU Industry Days 2021, available at: www.ec.europa.eu.

7. European Commission, “2030 Digital Compass”, *op. cit.*, p. 6.

8. US Department of State, “The Clean Network”, last accessed April 2, 2021, available at: www.2017-2021.state.gov.

9. P. Wintour, “US Defence Secretary Warns Huawei 5G Will Put Alliances at Risk”, *The Guardian*, February 15, 2020.

10. B. Dekker and M. Okano-Heijmans, “Dealing with China on High-tech Issues”, Clingendael Report, December 22, 2020; EU Chamber of Commerce in China and MERICS, “Decoupling: Severed Ties and Patchwork Globalisation”, 2021, p. 77.

11. The American Chamber of Commerce in Shanghai, “2020 China Business Report Highlights”, *Insight Magazine*, September 23, 2020, available at: www.amcham-shanghai.org.

The new Biden administration is already helping to create an atmosphere more conducive to EU-US cooperation. The **transatlantic agenda is twofold: addressing challenges that are internal to the transatlantic space, as well as the global challenges posed by digital authoritarianism.** Today, there is **growing political convergence on concerns about China.** The EU has been taking a tougher diplomatic stance vis-à-vis China, even if intra-European divisions remain.¹² Since 2019, the EU has officially considered that China is simultaneously a “negotiating partner[, an] economic competitor in the pursuit of technological leadership, and a systemic rival promoting alternative models of governance”.¹³ The US Secretary of State Antony Blinken said nothing different when, during his confirmation hearings in January 2021, he suggested that the US’s relationship with China would be “competitive when it should be, collaborative when it can be, and adversarial when it must be”.¹⁴ As evidence of this convergence, the US, the EU, the UK and Canada coordinated a campaign of economic sanctions against the mistreatment of Muslims in Xinjiang (in China), in March 2021. The EU and the US have also just relaunched their “dialogue on China” (initially set up in October 2020) to try to build further convergence on a range of issues from human rights to trade to multilateralism. Beyond the case of China, there is a growing shared understanding between the EU and the US of the dangers stemming from political use of digital technologies for the surveillance, manipulation, and repression of populations.

Society’s reliance on big tech gives those companies worrying political leverage

The challenge now is therefore to push a common agenda globally while at the same time settling transatlantic disagreements on data protection and big tech regulation. The two partners could seek to find a common ground on data transfers and on the regulation and taxation of systemic platforms via **the proposed “EU-US Trade and Technology Council”.** The recent example of Australia – where Facebook pressured lawmakers by cutting access to some its services, and Google threatened to do the same – has highlighted the risks that can come with overreliance on single platforms, given the leverage these companies have, even when these are based in a “like-minded” country. Europe and the US can also work to share best practices on supply chain management, export controls, IP theft and FDI screening. On AI standards too, both parties will need to settle their disagreements on ethics, privacy and regulations, if they are to help define international standards jointly.¹⁵

12. T. Rühlig, “Towards a More Principled European China Policy?”, *Études de l’Ifri*, November 2020, pp. 23-27.

13. European Commission and HR/VP, “EU-China – A Strategic Outlook”, European Council, March 21-22, 2019.

14. A. Blinken, “A Foreign Policy for the American People”, Speech, Washington D.C., March 3, 2021, available at: www.state.gov.

15. U. E. Franke, “Artificial Divide: How Europe and America Could Clash over AI”, ECFR, Policy Brief, January 2021.

TOWARDS NEW TECH ALLIANCES

Beyond the EU-US axis, new partnerships and alliances are taking shape to design the international technological order in bilateral, multilateral, minilateral or “polylateral” formats.¹⁶ Firstly, the EU is adapting its bilateral partnerships around the globe. Launched in 2018 and mirroring China’s “Belt and Road Initiative”, the “**EU-Asia connectivity strategy**” focuses on funding infrastructure projects, improving cross-border trade and flows (including flows of data), and collaborating in research and innovation. In addition, the Commission is considering setting up a fund to help bridge the digital gap in partner countries, with particular attention to Africa, and with the goal of “promoting at the same time EU technology and values”.¹⁷ There are also new linkages emerging between partnerships to global value chains. For example, supply chain management is becoming a topic of discussion within the recently upgraded **EU-ASEAN “strategic partnership”**.¹⁸ In addition, a recent EUISS report looking at risks to international supply chains suggests that, going forward, the EU should develop “resource partnerships” in order to “cushion potential future raw material shocks”.¹⁹

Other avenues consist in **mobilizing existing multilateral frameworks to deal with technological issues**. For a start, **NATO** has been increasingly concerned with technological competition, not only from a purely military standpoint but also with regards to collective resilience, critical infrastructure, 5G networks, and supply chains.²⁰ NATO’s involvement in these areas will require yet more cooperation between NATO and the EU, considering the growing role of the Union in these domains. The **G7** has also increasingly been used as a forum to discuss digital issues. France used the group to coordinate efforts on responsible uses of AI, which led to the **Global Partnership on Artificial Intelligence** (GPAI, see below), whose secretariat is now hosted by the **OECD**, with membership extending beyond it. Furthermore, the OECD has played a growing role in helping advance norms and standards on data governance and is currently working on two key transatlantic dossiers which are data transfers and digital taxation.²¹ The UK too is planning to use the next G7 summit, which it will host in June this year, to make it a central pillar of international efforts on technological standards.²² Other restricted formats that do not involve Europe, such as the **Quad** (the US, Australia, Japan and India) and the **5 Eyes** (the US, Canada, the UK, Australia and New Zealand) are also more focused on technology.

16. P. Lamy, “Polylateral Governance as the Way Ahead”, October 12, 2018, available at: www.parispeaceforum.medium.com.

17. European Commission, “2030 Digital Compass”, *op cit*.

18. Council of the EU, “EU-ASEAN Joint Ministerial Statement on Connectivity”, December 1, 2020.

19. D. Fiott and V. Theodosopoulos, “Sovereignty over Supply?”, *op. cit*.

20. NATO, “NATO 2030: United for a New Era: Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General”, November 25, 2020.

21. M. P. Goodman and P. Risberg, “Advancing Data Governance in the G7”, CSIS, Commentary, February 2, 2021.

22. Cabinet Office, “Global Britain in a Competitive Age: Integrated Review of Security”, Defence, Development and Foreign Policy, March 16, 2021.

Beyond existing frameworks, new proposals abound. Britain has put forward the idea of smaller informal grouping among advanced democracies. Boris Johnson proposed a “**D10**” (for “Democracy 10”) group to expand the G7 to include India, Australia and South Korea to work on safe technology supplies, in particular on 5G,²³ but the UK’s March 2021 “Integrated Review” makes no mention of the D10. In a slightly broader format, in 2020, two US State Department officials proposed a grouping of “techno-democracies” -- the “**T12**”.²⁴ The intent would be to “help democracies regain the initiative in global technology competition[,] allow them to promote their preferred norms and values around the use of emerging technologies and preserve their competitive advantage in key areas”.²⁵

A broader group of like-minded countries has also been evoked, with the idea of a “**summit of democracies**”. As candidate, Joe Biden pledged to host one in his first year in office “to renew the spirit and shared purpose of the nations of the free world [...], bring

Small groupings should be stepping- stones towards multilateralism

together the world’s democracies to strengthen our democratic institutions [and] confront nations that are backsliding and forge a common agenda”.²⁶ Such a summit would likely center on a Europe-US-Asia core. One proposal made by Antony Blinken and Robert Kagan (in a 2019 paper) is to “**link the Asian and the European democracies**” which are both US’s allies, but which Washington has thus far approached separately.²⁷ Such a forum would “not just address military security but also cybersecurity and other threats that

democracies face today, from terrorism to election interference”.²⁸ In a narrower perspective, the lengthy National Security Committee on AI report, published in February 2021 and chaired by Eric Schmidt (former CEO of Google) suggested creating “an **Atlantic-Pacific Security Technology Partnership** to improve defense and intelligence interoperability across Europe and the Indo-Pacific”.²⁹ A similar think-tank led initiative -- the “**Technology alliance**” project -- has already been established between CNAS (Washington), the Asia Pacific Initiative (Tokyo), and MERICS (Berlin).³⁰ The project is funded by Schmidt Futures, the foundation of Wendy and Eric Schmidt.

23. L. Fisher, “Downing Street Plans New 5G club of Democracies”, *The Times*, May 29, 2020.

24. J. Cohen and R. Fontaine, “Uniting the Techno-Democracies: How to Build Digital Cooperation”, Foreign Affairs, November/December 2020. The countries mentioned are the US, France, Germany, UK, Australia, Japan, South Korea, Finland, Sweden, India, Israel and Canada.

25. *Ibid.*

26. “The Power of America’s Example: The Biden Plan for Leading the Democratic World to Meet the Challenges of the 21st Century”, no date, available at: www.joebiden.com.

27. A. Blinken and R. Kagan, “‘America First’ Is only Making the World Worse: Here’s a Better Approach”, *Washington Post*, January 4, 2019.

28. *Ibid.*

29. National Security Commission on Artificial Intelligence, Final report, March 2021, p. 344.

30. “CNAS Technology Alliance Project Announces API and MERICS Partnership with Support from Schmidt Futures”, April 30, 2020, available at: www.cnas.org.

AVOIDING OLD AND NEW PITFALLS

Most of the limitations of the D10 and T12 proposals have already been pointed out. These include especially the unmanageable breadth of their agenda, and the elitist nature of their membership.³¹ Even if we leave out these considerations, the D10 excludes key players in 5G network provision (Finland and Sweden), and the T12 excludes the Netherlands, one of the few major manufacturers of semiconductors. What is more, in terms of purpose, there is a confusion between a positive role (to help build coalitions towards new global rules of the game) and a defensive one (aimed at curbing China's technological rise).

A larger grouping, rather than a more restrictive D10 or T12, would make sense for European countries. Where Europeans are more aligned with other like-minded partners than with the US, it is in the Europeans' interest that they work within larger frameworks where the ideas they share with other partners can be brought forward. Besides, **non-participation of the EU itself would be a problem**, as policy ideas endorsed by participants to the club could end up being impossible to translate in a common European policy. Before latest US elections, the European Commission and the EEAS highlighted their willingness to cooperate with the US on technological issues, suggesting that "a transatlantic technology space should form the backbone of a wider coalition of like-minded democracies".³² On 10 March 2021, Margaret Vestager spoke positively of Europe joining a US proposal for an alliance among democracies in the context of the current systemic rivalry.³³

Proposals such as the T12 also raise the question of outreach towards countries beyond strictly defined democratic countries, as well as towards private actors and NGOs. In the *Digital Compass*, the Commission suggests that "the EU is a key player in multilateral fora and a promoter of inclusive multilateralism where governments, civil society, the private sector, academia and other stakeholders work together".³⁴ The **Paris Call for Trust and Security in Cyberspace** is an example of an initiative that aims for inclusive and expertise-driven policymaking.³⁵ Similarly, the **Global Partnership on AI**, initiated in 2018 by France and Canada now has a membership of 18 countries plus the EU,³⁶ and its working groups include experts from science, industry, civil society and international organizations, among others. If they are set up, exclusive groupings of "like-minded countries" should be viewed primarily as

31. S. Fledstein, "How Should Democracies Confront China's Digital Rise? Weighing the Merits of a T-10 Alliance", Council on Foreign Relations, November 30, 2020, available at: www.cfr.org.

32. European Commission and HR/VP, "Joint Communication: A new EU-US Agenda for Global Change", December 2, 2020, p. 5.

33. C. Herwatz and M. Koch, "Rivalität mit China: EU-Kommissionsvizin Vestager will Tech-Allianz mit den USA", Handelsblatt, March 9, 2021.

34. European Commission, "2030 Digital Compass", *op. cit.*

35. B. Lété, "The Paris Call and Activating Global Cyber Norms", Policy Brief, GMF, March 2021.

36. Australia, Brazil, Canada, France, Germany, India, Italy, Japan, Mexico, the Netherlands, New Zealand, Poland, South Korea, Singapore, Slovenia, Spain, the UK, the US and the EU.

coalitions and as stepping-stones toward consensus-building in multilateral or polylateral institutions.

Last, but not least, as China is striving for leadership in the technical standards arena, Europeans must engage more deeply in political discussions on this issue, both among themselves and with their partners and allies. This should come on top of full investment in standard-setting international organizations like the **International Telecommunication Union**, the **International Organization for Standardization**, and the **International Electrotechnical Commission**, which have gained strategic importance as China's activism in them has grown.³⁷

When it comes to transatlantic relations while addressing technological issues, Europe and the US will have to avoid some old habits and misperceptions. Pitfalls that characterize their security relationship could transpire in

their technology relationship too. Even if it takes a different shape to defense, the transatlantic technological relationship is asymmetrical, like the defense relationship. Even if the EU is a global standard-setter, US companies are leaders, and private and public investments in Europe remain far below US thresholds. Transatlantic partners risk reproducing a similar situation to defense, where Europeans' dependency sows division and limits their ability to determine their own course of action, when needed.

Technology's
economic
implications can be
an impediment to
cooperation.

More generally, a challenge to international cooperation on technologies is **how to leverage the domestic benefits of thriving national ecosystems while also acting in concert.** In as much as Europe, the US, and other partners around the world share strategic aims, they are also economic competitors. As each country develops its technology strategy, there will be increasing competition for investment, job creation and talent retention. The fine line between partnership and economic competition transpires in all strategy documents -- whether American, French, British or by the EU -- as all want to achieve or maintain technological leadership. While competition will certainly fuel innovation, it might also limit readiness for international cooperation in technology development. Cooperation will prove even more challenging if these countries are not bound by the same norms.

37. J. Seaman, "China and the New Geopolitics of Technical Standardization", *Notes de l'Ifri*, Ifri, January 2020.

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