

The State of EU-US Digital and Energy Cooperation

by Federica Marconi, Max Münchmeyer and Irene Paviotti



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ABSTRACT

In a time of rapid technological advancements and changing energy paradigms, the European Union and the United States are trying to coordinate their efforts to navigate the complexities of an ever-evolving landscape. Transatlantic dialogues and cooperative endeavours are key mechanisms for mitigating tensions and fostering a common assessment of the opportunities and risks arising from these advancements. Critical in this regard are the problems of governance emanating from technological development and its consequences in the digital sphere as well as the delicate balance between security, competitiveness and environmental targets in the energy dimension.

European Union | USA | Transatlantic relations | Digital policy | Energy

keywords

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1. The broader context: Transatlantic relations in 2023

In 2023, both the EU and the US continued to support Ukraine against Russia's aggression, although in several countries a feeling of "fatigue" has gradually emerged. China's rising military and economic power and its expansionist plans have been a matter of common concern, prompting increasingly convergent transatlantic policies towards Beijing.¹ While the US and EU seem broadly aligned on geopolitical issues, trade relations have remained tense. The adoption in 2022 of the Inflation Reduction Act (IRA), which excludes EU green technology companies from accessing generous massive tax credits and subsidies unless they relocate to the US and/or abide by strict buying requirements favouring US manufacture, dealt a heavy blow to EU policymakers' hope that US protectionism vis-à-vis European markets could be mitigated, if not abandoned, by the Biden Administration.²

In October 2022 a US-EU Task Force was created to address EU concerns over the impact of IRA.³ Since then, some progress seems to have been made. In a March 2023 joint statement, US President Joe Biden and the President of the European Commission Ursula von der Leyen stated that the task force had "productively deepened" the transatlantic partnership in view of addressing the climate

¹ US and EU, *U.S.-EU Summit Joint Statement*, 20 October 2023, https://ec.europa.eu/commission/presscorner/detail/en/statement_23_5198. It is worth pointing out that the European and US approach to relations with China differs, see for example Suzanne Lynch et al., "The U.S. Wants Europe to Stand up to China. Europe Says: Not So Fast", in *Politico*, 8 March 2023, <https://www.politico.com/news/2023/03/08/us-europe-china-00086204>.

² Barbara Moens, "Electric Cars Rekindle Transatlantic Trade War", in *Politico*, 31 August 2022, <https://www.politico.eu/?p=2205509>.

³ European Commission, *Launch of the US-EU Task Force on the Inflation Reduction Act*, 26 October 2022, https://ec.europa.eu/commission/presscorner/detail/en/statement_22_6402.

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crisis, boosting the clean energy economy and building strong clean energy supply chains. They also added that steps had been taken to align the EU and US approaches to their common challenges.⁴ Moreover, as of October 2023, the European Commission reported that the IRA's "macroeconomic effect on Europe has so far been limited", although it specified that this was mostly due to the fact that the IRA had been introduced only recently and its implementation was in its early stages.⁵ Nevertheless, an agreement that would have helped solve this dispute has not yet materialised. In July 2023, the US and EU started negotiations to reach a Critical Minerals Agreement, which would make EU-extracted and/or processed critical minerals compatible with the IRA's clean vehicle tax credits' eligibility criteria.⁶ An agreement seemed to be within reach in the run-up to the October 2023 EU-US summit,⁷ but the final summit statement only reaffirmed the partners' commitment to continuing negotiations and stakeholder consultations.⁸ An agreement on critical minerals seems to be still weeks or months away.

Another source of trade tensions came to the fore in the weeks leading up to the EU-US summit. In 2021, the parties had committed to reaching an agreement on steel and aluminium, the Global Arrangement on Sustainable Steel and Aluminium, to definitively close the era of tariffs on EU materials introduced by the Trump Administration. The deadline had been set for 31 October 2023. Only days before the EU-US summit, however, negotiations stalled due to divergence on two points: some US industry exemptions from the EU's Carbon Border Adjustment Mechanism, and US tariffs on steel and aluminium exports from non-market economies outside the Arrangement, which would primarily target China and would not be compliant with World Trade Organisation (WTO) rules.⁹ Since the deadline for the reapplication of Trump-era tariffs was looming (1 January 2024), the transatlantic partners agreed to continue working on a solution by the end of the year.¹⁰ Eventually, on 19 December 2023, they announced the extension of the tariff suspension until March 2025.¹¹

⁴ US and EU, *Joint Statement by President Biden and President Von der Leyen*, 10 March 2023, https://ec.europa.eu/commission/presscorner/detail/en/statement_23_1613.

⁵ European Commission, *Report on EU Policy Initiatives for the Promotion of Investments in Clean Technologies* (COM/2023/684), 24 October 2023, p. 9, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52023DC0684>. The Communication also clarifies that there is conflicting evidence on the long-term impact the IRA will have on the EU economy.

⁶ Council of the EU, *Trade with the United States: Council Authorises Negotiations on EU-US Critical Minerals Agreement*, 20 July 2023, <https://europa.eu/!wJwTft>.

⁷ Philip Blenkinsop, "U.S. Optimistic It Will Reach Critical Minerals Deal with EU", in *Reuters*, 2 October 2023, <https://www.reuters.com/markets/commodities/us-optimistic-it-will-reach-critical-minerals-deal-with-eu-2023-10-02>.

⁸ US and EU, *U.S.-EU Summit Joint Statement*, cit.

⁹ Sarah Anne Aarup and Camille Gijs, "EU-US Metals Talks Go Down to the Wire ahead of Friday Summit", in *Politico*, 17 October 2023, <https://www.politico.eu/?p=3728430>.

¹⁰ US and EU, *U.S.-EU Summit Joint Statement*, cit.

¹¹ Philip Blenkinsop, "EU, U.S. Extend Steel Tariff Detente until End-March 2025", in *Reuters*, 19 December 2023, <https://www.reuters.com/markets/commodities/eu-us-extend-steel-tariff-detente-until-end-march-2025-2023-12-19>.

This is the background against which transatlantic discussions on technological developments and the energy transition are taking place. They have increasingly focused on the broader transatlantic political and trade agendas, as the IRA saga well illustrates. Beyond these persistent commercial tensions, however, what is the state of transatlantic cooperation on technology, i.e. digital technologies, and energy? This paper first delves into the different approaches that the EU and the US have taken in developing digital and energy policies. It then looks at the bilateral discussions to seek convergences and alignment on these issues, with a focus on artificial intelligence (AI) taxonomy and energy security.

2. The EU and US approach to digital and energy policy

2.1 Digital state of play

The digital and technology landscapes of the EU and US differ significantly in terms of market size, resources and development.

According to the European Investment Bank (EIB) Digitalisation Index, European companies lag behind their US counterparts in the adoption of digital technologies. Nevertheless, over the past four years, the EU has been catching up. From 2021 to 2022, the share of EU businesses using cutting-edge digital technologies rose from 61 to 69 per cent and from 66 to 71 per cent in US companies.¹²

The slower pace of digitalisation of EU companies stems from several factors, chief among them insufficient financing and limited access to capital markets.¹³ In contrast to the EU, in the US there is a well-developed capital market system that allows companies to raise capital through the issuance of stocks and federal bonds. Notably, in the euro area, bond markets as a percentage of GDP are three times smaller than in the US.¹⁴ This discrepancy should also be attributed to the more fragmented nature of Europe's financial system, characterised by varying rules and regulations across different countries.

The differences in the financial resources for firms' technological innovation are exemplified by the expenditure gap in research and development (R&D) in the EU and the US. In 2021, for instance, total government expenditures on R&D in the EU amounted to 400,168 million US dollars, compared with 709,713 million in the

¹² European Investment Bank, *Digitalisation in Europe 2022-2023: Evidence from the EIB Investment Survey*, 15 May 2023, <https://doi.org/10.2867/745542>.

¹³ Nicola Bilotta and Irene Paviotti, "SMEs and Access to Digital Tools – Barriers and Opportunities for Transatlantic Cooperation", in *EU-US Trade and Technology Dialogue Publications*, 3 May 2023, <https://futurium.ec.europa.eu/node/10289>.

¹⁴ Fabio Panetta, "Europe Needs to Think Bigger to Build Its Capital Markets Union", in *Politico*, 30 August 2023, <https://www.politico.eu/?p=3489024>.

US.¹⁵ Still, the EU has been on an upward trajectory for some time. In 2022, gross domestic expenditure on R&D in the EU increased by 7 per cent compared to the previous year, and by 47.5 per cent compared to 2012.¹⁶ The increasing investment by the EU in the technology sector, complemented by investment at national level, is a positive development that signals a commitment to fostering innovation and maintaining competitiveness in the global digital landscape. However, despite these efforts, the EU faces challenges in keeping up with the scale of investment seen in the United States: the US 2024 Budget foresees the largest investment ever in federal R&D.¹⁷ The US has benefited from an economic environment strongly focused on technological innovation, as evidenced by the birth and growth of major tech giants. Companies such as Alphabet (Google), Meta (Facebook), Apple and Amazon have emerged from fertile soil. Despite the presence of high-performing companies, the EU pales in comparison.¹⁸

Despite the undeniable advantage of the US in the digital industry, economy and innovation, the EU boasts a more developed regulatory toolkit. Brussels' regulations have a far-reaching impact, in that they set standards and benchmarks that are voluntarily adopted, thereby de facto extending the EU's jurisdiction on a global scale. Beside competition policy and environmental protection, in the digital field the EU has established itself as the global privacy standard-setter through the adoption of the General Data Protection Regulation (GDPR),¹⁹ which was introduced following the revelations of US mass surveillance activities by whistleblower Edward Snowden. Privacy and data management concerns were further exacerbated by the Cambridge Analytica incident, which involved the unauthorised scraping of Facebook user data with the aim of influencing the 2016 US presidential election.²⁰ Lately, worries about the risks for the security of the European citizens' personal data and for competition in the EU market have been deepened by the massive data collection and use by the so-called "GAFAM" (Google,

¹⁵ OECD, *Gross Domestic Spending on R&D (Indicator)*, 2024 (accessed on 6 February 2024), <https://doi.org/10.1787/d8b068b4-en>.

¹⁶ Eurostat, *R&D Expenditure*, data extracted in December 2023, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R%26D_expenditure.

¹⁷ White House, *President Biden's 2024 Budget Invests in American Science, Technology, and Innovation to Achieve Our Nation's Greatest Aspirations*, 13 March 2023, <https://www.whitehouse.gov/ostp/news-updates/2023/03/13/fy24-budget-fact-sheet-rd-innovation>.

¹⁸ Mark Minevich, "Can Europe Dominate in Innovation Despite US Big Tech Lead?", in *Forbes*, 3 December 2021, <https://www.forbes.com/sites/markminevich/2021/12/03/can-europe-dominate-in-innovation-despite-us-big-tech-lead>.

¹⁹ European Parliament and Council of the EU, *Regulation (EU) 2016/679 of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data (General Data Protection Regulation)*, <http://data.europa.eu/eli/reg/2016/679/oj>.

²⁰ Matthew Rosenberg, Nicholas Confessore and Carole Cadwalladr, "How Trump Consultants Exploited the Facebook Data of Millions", in *The New York Times*, 17 March 2018, <https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html>; Carole Cadwalladr and Emma Graham-Harrison, "Revealed: 50 Million Facebook Profiles Harvested for Cambridge Analytica in Major Data Breach", in *The Guardian*, 17 March 2018, <https://www.theguardian.com/p/89yba>.

Amazon, Facebook, Apple and Microsoft) companies,²¹ prompting a rethinking of the EU's digital strategy.

Against this backdrop, the pursuit of digital and technological sovereignty has emerged as a widespread objective in the EU and the US. The term lacks precise definition and consistent application, with distinct approaches by the US and EU.²² The latter has made efforts to advance its digital agenda, emphasising the need for greater digital sovereignty for safeguarding European values in the digital age. Nevertheless, the United States has expressed concerns and pushed back against certain aspects of the EU's approach, especially those on data and cybersecurity.

President von der Leyen's agenda for 2019–2024 indicated "a Europe fit for the digital age" as a top priority.²³ Other European Commission's documents – the White Paper on Artificial Intelligence²⁴ and the Communications "Shaping Europe's digital future"²⁵ and "A European strategy for data"²⁶ – provided further examples of the EU's pursuit for a sophisticated regulatory framework within its broader European Digital Strategy.

More recently, legislative acts such as the Digital Services Act (DSA),²⁷ the Digital Markets Act (DMA),²⁸ the Data Governance Act (DGA),²⁹ the Data Act³⁰ and the AI Act³¹ demonstrate the EU's resolve to address the evolving challenges emanating from online platforms, competition and data governance. The EU has paid

²¹ André Tambiama Madiaga, "Digital Sovereignty for Europe", in *EPRS Briefings*, July 2020, [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2020\)651992](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2020)651992).

²² Huw Roberts et al., "Safeguarding European Values with Digital Sovereignty: An Analysis of Statements and Policies", in *Internet Policy Review*, Vol. 10, No. 3 (2021), <https://doi.org/10.14763/2021.3.1575>.

²³ Ursula von der Leyen, *A Union That Strives for More. My Agenda for Europe. Political Guidelines for the Next European Commission 2019-2024*, 16 July 2019, <https://doi.org/10.2775/018127>.

²⁴ European Commission, *White Paper on Artificial Intelligence - A European Approach to Excellence and Trust* (COM/2020/65), 19 February 2020, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52020DC0065>.

²⁵ European Commission, *Shaping Europe's Digital Future* (COM/2020/67), 19 February 2020, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52020DC0067>.

²⁶ European Commission, *A European Strategy for Data* (COM/2020/66), 19 February 2020, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52020DC0066>.

²⁷ European Parliament and Council of the EU, *Regulation (EU) 2022/2065 of 19 October 2022 on a Single Market for Digital Services (Digital Services Act)*, <http://data.europa.eu/eli/reg/2022/2065/oj>.

²⁸ European Parliament and Council of the EU, *Regulation (EU) 2022/1925 of 14 September 2022 on Contestable and Fair Markets in the Digital Sector (Digital Markets Act)*, <http://data.europa.eu/eli/reg/2022/1925/oj>.

²⁹ European Parliament and Council of the EU, *Regulation (EU) 2022/868 of 30 May 2022 on European Data Governance (Data Governance Act)*, <http://data.europa.eu/eli/reg/2022/868/oj>.

³⁰ European Parliament and Council of the EU, *Regulation (EU) 2023/2854 of 13 December 2023 on Harmonised Rules on Fair Access to and Use of Data (Data Act)*, <http://data.europa.eu/eli/reg/2023/2854/oj>.

³¹ European Commission, *Proposal for a Regulation Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act)* (COM/2021/206), 21 April 2021, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52021PC0206>.

increasing attention to strengthening information security through the adoption of the Cybersecurity Act³² and the Network and Information Security Directives I and II,³³ as well as the proposal for the Cyber Resilience Act.³⁴

These measures require market participants to comply with EU laws if their activities affect EU citizens, regardless of their location. This is meant to have a significant impact, more evident in the realms of privacy and competition – two major policy areas strictly intertwined and where remarkable differences exist between the EU and the US. Already in 2015, the executive vice president of the US Chamber of Commerce warned against the adverse effects that EU initiatives to address data sovereignty and privacy concerns could have on the competitiveness of American businesses.³⁵

The DGA and the Data Act are key pillars of the “European strategy for data”.³⁶ They aim at ensuring the EU’s digital sovereignty and the protection not only of personal data but also of industrial data transferred abroad. The DGA, in force since June 2022, aims to create a single European data space, with a focus on the commercial re-use of government data. The provisions of the DGA are complemented by those of the Data Act, approved by the EU Council in November 2023, which clarifies who can create value from data and under which conditions, mainly addressing the business-to-business transfer of non-personal data. The Data Act aims to reinforce the data economy of the EU by unlocking industrial data, optimising its utilisation and accessibility and supporting a competitive and stable European cloud market. Both the DGA and Data Act have introduced safeguards to enhance data security and address the challenges in transferring data outside the EU. Nevertheless, a growing concern for countries allied or partners to the EU is that stringent regulations may inadvertently prompt corporations to keep their data within the EU, preventing the smooth flow of industrial information and reducing its potential to increase competitiveness.

The discussion regarding data regulation across the Atlantic is a longstanding issue that reveals the difficulties in striking a balance between privacy rights and

³² European Parliament and Council of the EU, *Regulation (EU) 2019/881 of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on Information and Communications Technology Cybersecurity Certification (Cybersecurity Act)*, <http://data.europa.eu/eli/reg/2019/881/oj>.

³³ European Parliament and Council of the EU, *Directive (EU) 2016/1148 of 6 July 2016 Concerning Measures for a High Common Level of Security of Network and Information Systems across the Union*, <http://data.europa.eu/eli/dir/2016/1148/oj>; *Directive (EU) 2022/2555 of 14 December 2022 on Measures for a High Common Level of Cybersecurity across the Union*, <http://data.europa.eu/eli/dir/2022/2555/oj>.

³⁴ European Commission, *Proposal for a Regulation on Horizontal Cybersecurity Requirements for Products with Digital Elements* (COM/2022/454), 15 September 2022, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52022PC0454>.

³⁵ Doug Palmier, “U.S. Chamber Sees Mixed Signals from EU on Digital Trade”, in *Politico*, 20 October 2015.

³⁶ European Commission website: *A European Strategy for Data*, last updated on 12 January 2024, <https://digital-strategy.ec.europa.eu/en/node/59>.

economic interests. The EU's regulatory stance recognises individual privacy as a fundamental right. By contrast, the US has adopted a method for safeguarding privacy and data that utilises a sector-based framework rather than a unified law akin to the GDPR. This involves a blend of regulations, legislation and self-regulation. The US currently lacks a comprehensive data protection law, with protection originating from a disparate set of federal or state initiatives. Federal protection is limited to such specific sectors as financial institutions, telecommunications, children's privacy and healthcare providers. Notable state-level initiatives include the California Consumer Privacy Act of 2018 which was subsequently enhanced by the California Privacy Rights Act in 2020. Other state initiatives are the Colorado Privacy Act of 2018, the Virginia Consumer Data Protection Act of 2021, the Utah Consumer Privacy Act of 2022, and the Connecticut Data Privacy Act of 2022. Furthermore, the US endorses a business model in which technology firms provide no-cost services to their users in exchange for the usage of their personal data. European regulators have voiced concerns about this approach. Numerous cases have been brought by national data protection authorities against American technology companies.

Attempts to bridge the regulatory gap in data management and transfer have been made through the establishment of special arrangements, such as "Safe Harbour"³⁷ and "Privacy Shield".³⁸ However, both have been nullified by the Court of Justice of the EU (CJEU). The main reasons were the lack of sufficient protection for personal data under US domestic law and the scope of state surveillance over the data after it was transferred. Such legal uncertainties have led numerous companies, including Facebook, to threaten to completely withdraw from the European market.³⁹ In March 2022 von der Leyen and US President Joe Biden vowed to establish "a new framework for transatlantic data flows".⁴⁰ In its adequacy judgement of 10 July 2023, the European Commission confirmed that this new EU-US Data Privacy Framework offered an adequate level of protection for personal data.⁴¹ However, new legal challenges have been announced, possibly reaching the CJEU by early 2024. This may result in a temporary suspension of the new framework and new legal uncertainties.

³⁷ European Commission, *Commission Decision 2000/520/EC of 26 July 2000 pursuant to Directive 95/46/EC on the Adequacy of the Protection Provided by the Safe Harbour Privacy Principles and Related Frequently Asked Questions Issued by the US Department of Commerce*, <http://data.europa.eu/eli/dec/2000/520/oj>.

³⁸ European Commission, *Commission Implementing Decision (EU) 2016/1250 of 12 July 2016 pursuant to Directive 95/46/EC on the Adequacy of the Protection Provided by the EU-U.S. Privacy Shield*, http://data.europa.eu/eli/dec_impl/2016/1250/oj.

³⁹ Justin Burak, "US-EU Digital Relations in Practice: Part I", in *PfEU Commentaries*, 13 July 2021, <https://pathforeurope.eu/?p=4553>; Timothy B. Lee, "Facebook Warns Privacy Rules Could Force It to Exit European Market", in *Ars Technica*, 22 September 2020, <https://arstechnica.com/?p=1708641>.

⁴⁰ EU and US, *Statement by President von der Leyen with US President Biden*, 25 March 2022, https://ec.europa.eu/commission/presscorner/detail/en/statement_22_2043.

⁴¹ European Commission, *Data Protection: European Commission Adopts New Adequacy Decision for Safe and Trusted EU-US Data Flows*, 10 July 2023, https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3721.

The DSA and the DMA aim to regulate digital markets through the implementation of policies on companies with online services and platforms. While their objectives and focus differ, these regulations contribute synergistically to creating a safer digital environment in an attempt to strike a balance between protecting the fundamental rights of users and ensuring fair competition among businesses.⁴² However, these regulatory efforts could have an impact on the competitive dynamics between the EU and the US,⁴³ as they impact all firms that maintain operations and users within the EU, regardless of their headquarters' location.

The DMA, entered into force in November 2022, targets core platform services designated as "gatekeepers" required to comply with its provisions by 6 March 2024. The DMA's provisions apply to gatekeepers that meet three requirements: they have a significant impact on the internal market, they are an important gateway for business users to reach end users and they hold an entrenched and durable position or it is foreseeable that they will enjoy such a position in the near future. The main purpose of the DMA is to ensure fair and competitive markets in the digital industry where gatekeepers are present, adopting an *ex ante* regulatory approach designed to limit their economic power. For example, the DMA prohibits gatekeepers from ranking, indexing and crawling their own products and services more favourably than those of third parties.⁴⁴ The DMA initially sparked concerns in the US due to it potentially favouring European competitors, since only US platforms qualify as "gatekeepers".⁴⁵ Talks between the European Parliament and the Council of Ministers eventually led to an extension of the gatekeeper definition, allowing for the inclusion of Chinese and EU enterprises. Meeting the DMA regulations would nonetheless lead to substantial costs for gatekeepers such as Microsoft, Amazon, Apple, Alphabet and Meta, who may have to review their business strategies to avoid penalties of up to 20 per cent of their global income.

The DSA, applicable since 1 January 2024, has introduced a comprehensive regulatory framework to address content management on online platforms. It applies to all digital intermediary services, with a predominant focus on very large online platforms (VLOPs) and very large online search engines (VLOSEs), defined as having 45 million or more monthly active users or 10 per cent of Europe's population. The DSA adopts an *ex-post* approach to tackle content moderation problems. It includes restrictions on the utilisation of sensitive personal information for targeted advertising and mandates online platforms to

⁴² European Commission website: *The Digital Services Act Package*, last updated on 6 February 2024, <https://digital-strategy.ec.europa.eu/en/node/27>.

⁴³ Mark Scott, "The Three Buckets of Digital Rulemaking", in *Politico*, 26 October 2023, <https://www.politico.eu/?p=3759396>.

⁴⁴ Article 6(5) DMA. Natalia Moreno Bellosso and Nicholas Petit, "The EU Digital Markets Act (DMA): A Competition Hand in a Regulatory Glove", in *European Law Review*, Vol. 48, No. 4 (August 2023), p. 391-421, <https://ssrn.com/abstract=4411743>.

⁴⁵ Meredith Broadbent, "Implications of the Digital Markets Act for Transatlantic Cooperation", in *CSIS Reports*, September 2021, <https://www.csis.org/node/62185>.

implement measures for identifying and eliminating illegal content and materials. Additionally, it has introduced transparency obligations. Although certain online platforms have already implemented compliance measures,⁴⁶ Twitter (now known as X) has recently received an order from the EU's digital chief, Commissioner Thierry Breton, to adhere to the DSA or face the consequences. This was due to the spread of illegal content and misinformation in the aftermath of Hamas' attack on Israel on 7 October 2023. X's owner Elon Musk has been warned that failure to comply may involve fines equal to 6 per cent of its global annual turnover and even suspension of access to the EU Single Market.⁴⁷ At present, Musk is evaluating the possibility of withdrawing X from Europe.

In December 2022, the EU-US Trade and Technology Council, a forum created with the goal of enhancing transatlantic coordination on development standards, regulation and export of technology products (for more detail, see below), outlined a joint position on so-called trustworthy artificial intelligence.⁴⁸ The move aimed at creating a roadmap for AI and risk management to facilitate the companies' compliance with requirements on both sides of the Atlantic.⁴⁹ The EU is currently finalising its own Artificial Intelligence Act – the first-ever attempt to regulate AI, with the aim of creating an all-encompassing structure to ensure a standard for trustworthy and human-centred AI, and a willingness to scale up globally. The possibility of regulating generative foundational models (such as BERT, DALL-E, MuseNet and the well-known ChatGPT), which was not an issue when the AI law was first discussed, caused a setback in the legislative process. With a view to promoting domestic AI companies using generative AI, Germany, France and Italy initially reversed their position in favour of self-regulation through a national code of conduct. However, on 9 December 2023, the EU Parliament and Council found an agreement on an AI Act and on 2 February 2024 the Coreper, the auxiliary body of the Council, unanimously endorsed the new system of rules on artificial intelligence. The proposal is expected to be formally adopted in April.

In the meantime, the US Administration moved from a Blueprint for AI Bill of Rights⁵⁰ and voluntary agreements with tech giants⁵¹ to the adoption of an executive

⁴⁶ Emma Roth, "The EU's Digital Service Act Goes into Effect Today: Here's What That Means", in *The Verge*, 25 August 2023, <https://www.theverge.com/23845672/eu-digital-services-act-explained>.

⁴⁷ Théophile Hartmann "EU's Breton Urges Musk to Tackle Spread of Disinformation on X after Hamas Attack", in *Euractiv*, 11 October 2023, <https://www.euractiv.com/?p=1991473>.

⁴⁸ EU-US Trade and Technology Council, *EU-US Joint Statement of the Trade and Technology Council*, 5 December 2022, https://ec.europa.eu/commission/presscorner/detail/en/statement_22_7516.

⁴⁹ Mark Scott, "Digital Bridge: EU-US Digital Relations – Evolving Interference – Sweden in Charge", in *Politico*, 5 January 2023, <https://www.politico.eu/?p=2476227>.

⁵⁰ White House, *Blueprint for an AI Bill of Rights. Making Automatic Systems Work for the American People*, October 2022, <https://www.whitehouse.gov/ostp/ai-bill-of-rights>.

⁵¹ White House, *Fact Sheet: Biden-Harris Administration Secures Voluntary Commitments from Leading Artificial Intelligence Companies to Manage the Risks Posed by AI*, 21 July 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/07/21/fact-sheet-biden-harris-administration-secures-voluntary-commitments-from-leading-artificial-intelligence-companies-to-manage-the-risks-posed-by-ai>.

order on AI in October 2023.⁵² The executive order combines regulatory measures and soft law, mainly focusing on AI safety and security and publicly-funded AI research and deployment infrastructure. The US has rapidly accelerated its efforts, primarily driven by growing concerns about China's advancements in AI and technology. However, the US Congress has not yet passed any legislation on AI.⁵³ Moreover, the US regulatory initiatives have not been coordinated with the EU. The sectoral approach of the US proactively addresses cybersecurity and military uses of AI. The EU's AI Act takes instead a more horizontal and comprehensive scope. Moreover, the US's regulation falls short of regulating training data, transparency requirements, and performance targets – all elements covered by the EU's AI Act.

2.2 Energy state of play

Energy relations between the EU and US have not been without tensions, most recently due to the Trump Administration's aggressive policy on energy,⁵⁴ including sanctions on EU companies working on energy projects with Russia, and the protectionist thrust of the Biden Administration's plan to promote a homegrown green technology through the Inflation Reduction Act (IRA) of 2022.⁵⁵ It is Russia's war against Ukraine, however, that has upended Europe's energy paradigm.

A striking example of this is the dramatic change of German energy policy. Before the war, US pressure to stop the construction of Nord Stream 2, a German-Russian project doubling the amount of importable gas of the already controversial Nord Stream 1 pipeline, was denounced by German policymakers as a cynical move to increase US liquefied natural gas (LNG) export revenues.⁵⁶ The war changed everything. Now Germany is strongly increasing LNG imports from the US and is constructing its own regasification capacity in the North and Baltic Seas.

The imperative to shift away from Russia's gas supplies after the invasion of Ukraine has led to more reliance on imports of US LNG not just in Germany but across Europe. This was not an entirely new development, as imports of LNG into Europe had been rising for some time, mainly propelled by a July 2018 agreement

⁵² White House, *Fact Sheet: President Biden Issues Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence*, 30 October 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence>.

⁵³ Nicol Turner Lee and Jack Malamud, "How Congress Can Secure Biden's Legacy", in *Brookings Commentaries*, 25 January 2024, <https://www.brookings.edu/?p=1755794>.

⁵⁴ Timothy Gardner and Alissa De Carbonnel, "Aggressive U.S. Energy Policy Tests Ties with European Allies", in *Reuters*, 10 July 2029, <https://www.reuters.com/article/idUSKCN1U512W>.

⁵⁵ Michael T. Klare, "The Militarisation of U.S. Energy Policy: Donald Trump Enlists Fossil Fuels in the Struggle for Global Dominance", in *Energy Post*, 19 February 2018, <https://energypost.eu/?p=16770>.

⁵⁶ Steven Pifer, "Nord Stream 2: Background, Objections, and Possible Outcomes", in *Brookings Policy Briefs*, April 2021, <https://www.brookings.edu/?p=1440409>. For an example of reporting at the time of rising tensions between the US and Germany, see Hans von der Burchard and America Hernandez, "US-German Tensions over Russia-Backed Nord Stream 2 Pipeline", in *Politico*, 21 January 2021, <https://www.politico.eu/?p=1582922>.

between then European Commission Presidents Jean-Claude Juncker and former US President Donald Trump.⁵⁷ The acceleration since 2022 has been unmistakable, however.⁵⁸ In his speech at the April 2023 US-EU Energy Council, US Secretary of State Antony Blinken remarked that US exports to Europe had increased by over 140 per cent between 2021 and 2022 for a total of 56 billion cubic metres (bcm).⁵⁹ In 2022, Europe was the destination of 64 per cent of US LNG exports,⁶⁰ and data for the first half of 2023 point to an increase from 6.8 bcf (circa 1.9 bcm) per day in 2022 to 7.7 bcf (circa 2.2 bcm) per day in the first half of 2023.⁶¹

Both the US and the EU have taken bold steps over the course of the last two years to maintain (or regain) their competitiveness while pursuing energy security and decarbonisation goals. The key question revolves around the degree to which they are willing or able to align their strategies for secure supplies of key technologies and resources. Whether such efforts, individually or jointly, will be successful in challenging the dominance of other players, primarily China, in the cleantech and raw materials space, is another question. Both the EU and US are tackling the competitiveness challenge in different ways due to their distinct political and constitutional frameworks.

The main instrument of the US's clean energy policy is the aforementioned Inflation Reduction Act. The IRA's principal tools are tax credits, which are granted to businesses or individuals that produce or purchase key clean energy technologies or resources if certain conditions are met – and such conditions overwhelmingly favour US companies. For example, first-time buyers of electric vehicles (EVs) are eligible for a tax break of up to 7,500 US dollars, provided that “at least 40% of the value of certain critical materials used in the car/battery is extracted/refined in North America, and [...] if at least 40% of the value of the components of the battery is manufactured in North America”.⁶² The government has recently introduced more stringent requirements for EVs, meaning that EVs

⁵⁷ US and EU, *Joint U.S.-EU Statement following President Juncker's Visit to the White House*, 25 July 2018, https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_18_4687. See also European Commission, *EU-US LNG Trade*, February 2022, https://energy.ec.europa.eu/system/files/2022-02/EU-US_LNG_2022_2.pdf.

⁵⁸ Servet Yanatma, “Europe's ‘Energy War’ in Data: How Have EU Imports Changed since Russia's Invasion of Ukraine?”, in *Euronews*, 24 February 2023, <https://www.euronews.com/green/2023/02/24/europes-energy-war-in-data-how-have-eu-imports-changed-since-russias-invasion-of-ukraine>.

⁵⁹ US Department of State, *Secretary Antony J. Blinken Remarks before U.S.-EU Energy Council Meeting*, 4 April 2023, <https://www.state.gov/secretary-antony-j-blinken-remarks-before-u-s-eu-energy-council-meeting>. Note that Blinken seems to have been referring to figures from the Energy Information Administration (EIA), which defines Europe as the EU27 plus the UK.

⁶⁰ Victoria Zaretskaya, “Europe Was the Main Destination for U.S. LNG Exports in 2022”, in *Today in Energy*, 22 March 2023, <https://www.eia.gov/todayinenergy/detail.php?id=55920>.

⁶¹ Ibid; Victoria Zaretskaya, “The United States Exported More LNG than Any Other Country in the First Half of 2023”, in *Today in Energy*, 12 September 2023, <https://www.eia.gov/todayinenergy/detail.php?id=60361>. Again, note that the EIA refers to figures for the EU27 plus the UK.

⁶² Daniel Gros, Philipp Leo Mengel and Giorgio Presidente, “The EU and the US Inflation Reduction Act. No Rose Without Thorns”, in *IEP@BU Working Paper Series*, September 2023, p. 6, <https://iep.unibocconi.eu/node/542>.

that use minerals or components manufactured by a “Foreign Entity of Concern” are not eligible for tax credits from 1 January 2024.⁶³ This disqualifies a slew of EVs that include components manufactured in China, and has significantly narrowed the list of eligible vehicles.⁶⁴ Additionally, the subsidy is linked to household income and the value of the electric vehicle purchased.⁶⁵ Another instrument of the IRA are tax breaks for the production of clean hydrogen, amounting to up to 3 US dollars per kilogram for ten years, provided that projects begin construction by 2033.⁶⁶ The IRA also provides tax credits for renewable electricity production and investment and for carbon capture and storage (CCS).⁶⁷

The IRA provides the US with a powerful financial tool to enhance its cleantech capabilities. However, there is a lack of control over the broader trajectory of the energy transition, which may pose challenges. Furthermore, uncertainties remain regarding the total expenses associated with the implemented measures.⁶⁸

The EU has adopted a more comprehensive political strategy for the energy transition, including a plethora of medium and long-term sectoral benchmarks and targets. It has further maintained remarkable coherence within and between its decarbonisation and energy security strategies. However, the EU too struggles implementation, as the latter largely depends on member state action, which may delay or fragment Union-wide efforts.

Like the US, the EU has been pursuing industrial competitiveness and strategic autonomy in the journey towards carbon neutrality. Upon taking office in late 2019, Commission President von der Leyen unveiled plans for a European Green Deal, which aims at a comprehensive economic and societal transformation of the EU into the first climate-neutral continent by 2050. The name seems to be a deliberate reference to the Green New Deal growth strategy championed in the US by Democratic lawmakers in Congress. At the time of its launch, the ambitious aims of the Green Deal, which also has a geopolitical dimension, were in stark contrast with President Trump’s policy on climate change, which prioritised energy security, deregulation and economic growth over decarbonisation, culminating in

⁶³ David E. Bond et al., “New Details on the Section 30D Clean Vehicle Tax Credit’s Foreign Entity of Concern Restrictions”, in *White & Case Insights Alert*, 14 December 2023, <https://www.whitecase.com/insight-alert/new-details-section-30d-clean-vehicle-tax-credits-foreign-entity-concern-restrictions>.

⁶⁴ Andrew J. Hawkins, “We’re Down to Just a Handful of EVs that Qualify for the Full \$7,500 Tax Credit in the US”, in *The Verge*, 2 January 2024, <https://www.theverge.com/2024/1/2/24022509>.

⁶⁵ Internal Revenue Service (IRS), *Credits for New Clean Vehicles Purchased in 2023 or After*, last updated on 17 January 2024, <https://www.irs.gov/credits-deductions/credits-for-new-clean-vehicles-purchased-in-2023-or-after>.

⁶⁶ Pier Paolo Raimondi et al., *Geo-economics of the European Green Deal*, Rome, IAI, November 2023, <https://www.iai.it/en/node/17650>; see also US Department of Energy website: *Financial Incentives for Hydrogen and Fuel Cell Projects*, <https://www.energy.gov/node/806041>.

⁶⁷ Daniel Gros, Philipp Leo Mengel and Giorgio Presidente, “The EU and the US Inflation Reduction Act”, cit., p. 8-10.

⁶⁸ Ibid.

the rollback of Obama-era climate legislation and the US withdrawal from the Paris Agreement.⁶⁹

It was in this geopolitical environment that the EU sought to portray itself as a global climate champion. Since its unveiling in 2019, the European Green Deal has been anchored in EU law. The first step was the adoption, in July 2021, of the flagship European Climate Law. Among other provisions, the Climate Law enshrines the mid-century climate neutrality target as well as the near-term 2030 decarbonisation target of reducing greenhouse gas emissions by 55 per cent compared to 1990 levels. A slew of legislative initiatives was undertaken in 2021 to align the EU's energy acquis with this increased ambition. The so-called Fit for 55 package proposed several amendments to existing legislation, including the headline Renewable Energy and Energy Efficiency Directives. It also introduced new legal mechanisms such as the Carbon Border Adjustment Mechanism (CBAM), which, as mentioned above, has emerged as an obstacle to the conclusion of the Global Arrangement on Sustainable Steel and Aluminium.⁷⁰

Of particular relevance for transatlantic relations is the execution of the Green Deal Industrial Plan. Published in February 2023, the plan aims to enhance European competitiveness in the clean tech sector. Two legislative proposals are particularly relevant. The first is the Net-Zero Industry Act (NZIA),⁷¹ which has been presented as the EU's answer to the Inflation Reduction Act. The NZIA identifies a set of strategic technologies of particular importance for the clean energy transition. These technologies are to benefit from expedited permitting procedures and easier access to investment. According to the overarching benchmark specified by the NZIA, the EU should manufacture 40 per cent of its demand of these strategic technologies by 2030.

After initial pessimism, a nuanced assessment of the complementarity between the IRA and the NZIA emerged.⁷² The narrative that Europe has been caught on the back foot by the IRA and is now scrambling to counter it is not entirely persuasive.⁷³ In fact, following the Covid-19 pandemic and the energy crisis, the EU had already

⁶⁹ For an overview, see Samatha Gross, "What Is the Trump Administration's Track Record on the Environment?", in *Brookings Commentaries*, 4 August 2020, <https://www.brookings.edu/?p=958348>.

⁷⁰ Inu Manak and Helena Kopans-Johnson, "In Green Steel Discussions, the United States Is Playing Dirty", in *CFR Blog Renewing America*, 8 November 2023, <https://www.cfr.org/node/249569>.

⁷¹ European Commission, *Proposal for a Regulation on Establishing a Framework of Measures for Strengthening Europe's Net-Zero Technology Products Manufacturing Ecosystem (Net Zero Industry Act)* (COM/2023/161), 16 March 2023, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52023PC0161>.

⁷² Daniel Gros, Philipp Leo Mengel and Giorgio Presidente, "The EU and the US Inflation Reduction Act", cit.; Théophile Puget-Abadie, Francis Shin and Jonah Allen, "Clean Industrial Policies: A Space for EU-US Collaboration", in *EnergySource*, 10 March 2023, <https://www.atlanticcouncil.org/?p=621520>.

⁷³ Christian Scheinert, "EU's Response to the US Inflation Reduction Act (IRA)", in *European Parliament In-Depth Analysis*, June 2023, [https://www.europarl.europa.eu/thinktank/en/document/IPOL_IDA\(2023\)740087](https://www.europarl.europa.eu/thinktank/en/document/IPOL_IDA(2023)740087).

adopted the Recovery and Resilience Facility (RRF) and relaxed the state aid rules. Both measures had been designed to support Green Deal objectives.⁷⁴ This view thus holds that these various EU instruments are adding up to a muscular support scheme in its own right, making a cleantech flight from the EU anything but inevitable. The persisting core challenge is for the EU and US to coordinate and dialogue on the complementarities of their approaches.

Even so, the NZIA's design has been subject to criticism as to whether its ambitions can be reached. One argument is that the 40 per cent target for all technologies considered strategic is a blunt instrument due to its insensitivity to the specificities of each of the selected technologies.⁷⁵ Moreover, the NZIA fails to effectively tackle barriers to investment or to address the core challenge of coordinating national and regional policy initiatives, which may result in policy fragmentation.⁷⁶

A second important legislative proposal published by the Commission under the umbrella of the Green Deal Industrial Plan is the Critical Raw Materials Act (CRMA).⁷⁷ The CRMA operates in a way similar to the NZIA: it identifies a list of strategic raw materials and specifies that, by 2030, the EU should extract 10 per cent, process 40 per cent and recycle 25 per cent of its annual consumption of these materials. Additionally, the CRMA aims to limit the import of these materials from a single third country to 65 per cent of its annual consumption. It will be enormously challenging for the EU to reach these benchmarks in a relatively short time. The EU currently imports 75–100 per cent of its metal needs,⁷⁸ and is heavily dependent on single third countries for several strategic raw materials. China, for example, supplies 100 per cent of heavy rare earth elements (HREEs) and 85 per cent of light rare earth elements (LREEs), both in processed form, which are needed for permanent magnets used in the manufacture of wind turbines and traction motors.⁷⁹ As with the NZIA, projects associated with strategic raw materials will benefit from expedited regulatory and permitting procedures and will be prioritised for investment. The external dimension of the EU's raw materials strategy foresees a series of mutually beneficial strategic partnerships with third countries, with an

⁷⁴ Ibid.; see also Jonathan Packroff, "EU Policy 'Superior' to US Inflation Reduction Act, Say European Economists", in *Euractiv*, 25 September 2023, <https://www.euractiv.com/?p=1982888>.

⁷⁵ Simone Tagliapietra, Reinhilde Veugelers and Jeromin Zettelmeyer, "Rebooting the European Union's Net Zero Industry Act", in *Bruegel Policy Briefs*, No. 15/23 (June 2023), <https://www.bruegel.org/node/9177>.

⁷⁶ Ibid., p. 7.

⁷⁷ European Commission, *Proposal for a Regulation Establishing a Framework for Ensuring a Secure and Sustainable Supply of Critical Raw Materials* (COM/2023/160), 16 March 2023, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52023PC0160>.

⁷⁸ Guillaume Ragonnaud, "Securing Europe's Supply of Critical Raw Materials. The Material Nature of the EU's Strategic Goals", in *EPRS Briefings*, March 2023, [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2023\)739394](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2023)739394).

⁷⁹ Milan Grohol and Constanze Veeh, *Study on the Critical Raw Materials for the EU 2023. Final Report*, Luxembourg, Publications Office of the EU, 2023, <https://doi.org/10.2873/725585>; see also Max Münchmeyer, *Strategic Security and Critical Raw Materials: The Role of the European Investment Bank*, Rome, IAI, July 2023, <https://www.iai.it/en/node/17351>.

emphasis on fostering growth along the entire value chain. As mentioned above, the EU is currently negotiating a critical minerals agreement with the United States to solidify alignment on this issue.

As part of the European Green Deal, in 2020 the Commission published its Hydrogen Strategy, which aims to push hydrogen past the “tipping point” of commercial viability.⁸⁰ In December 2021, as a complement to the Fit for 55 legislative package, the Commission published the Hydrogen and Decarbonised Gas Market Package, which aims to reform the Union’s gas legislation to facilitate the entry of low-carbon gases and to create a market for hydrogen. To accomplish the latter, the Union seeks to promote the hydrogen-readiness of new gas infrastructure and will also establish an EU-level regulatory association to coordinate regulation of hydrogen networks from the very beginning.

The European Union’s REPowerEU Plan for the reduction of Russian fossil fuel imports has reinforced the EU’s efforts in the hydrogen sphere. Through the so-called *hydrogen accelerator* concept, the Union aims to incentivise the use of hydrogen, with the goal of producing 10 million tonnes of hydrogen and importing another 10 million tonnes by 2030. To kickstart a European hydrogen market, the Commission established a European Hydrogen Bank to facilitate coordinated investment in hydrogen projects. The first pilot auction was launched in November 2023, providing 800 million euros in subsidies for clean hydrogen projects.⁸¹ The Commission also proposed a list of Projects of Mutual and Common Interest, that is, cross-border infrastructure projects that benefit from privileged access to EU funds. The list includes for the first time 65 hydrogen projects.⁸²

In the US, a June 2023 National Clean Hydrogen Strategy and Roadmap spells out scenarios in which the US would produce 10 million tonnes of clean hydrogen by 2030.⁸³ To this end, the government recently announced a 7 billion US dollar initiative under the 2021 Bipartisan Infrastructure Law to enable the establishment of seven Regional Clean Hydrogen Hubs.⁸⁴

The EU and US are thus confronting the issue of competitiveness in the clean energy transition in different ways according to their distinct fiscal and institutional

⁸⁰ European Commission, *A Hydrogen Strategy for a Climate-Neutral Europe* (COM/2020/301), 8 July 2020, <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=celex:52020DC0301>.

⁸¹ European Commission, *Commission Launches First European Hydrogen Bank Auction with €800 Million of Subsidies for Renewable Hydrogen Production*, 23 November 2023, https://ec.europa.eu/commission/presscorner/detail/en/IP_23_5982.

⁸² European Commission, *Commission Proposes 166 Cross-Border Energy Projects for EU Support to Help Deliver the European Green Deal*, 28 November 2023, https://ec.europa.eu/commission/presscorner/detail/en/IP_23_6047.

⁸³ US Department of Energy, *U.S. National Clean Hydrogen Strategy and Roadmap*, June 2023, <https://www.hydrogen.energy.gov/library/roadmaps-vision/clean-hydrogen-strategy-roadmap>.

⁸⁴ US Department of Energy, *Biden-Harris Administration Announces \$7 Billion For America’s First Clean Hydrogen Hubs, Driving Clean Manufacturing and Delivering New Economic Opportunities Nationwide*, 13 October 2023, <https://www.energy.gov/node/4834002>.

setup. The IRA presents an unprecedented funding package for clean technology, operating mainly through tax credits. A concern is the uncertain overall cost and duration of the measures introduced by the IRA,⁸⁵ as well as the possibility that a future Republican administration may repeal the IRA altogether.⁸⁶ In Europe, a complicating factor is the fact that the implementation of the Green Deal, including investments to achieve common European targets, depends in large part on the policies and performance of individual member states. This, combined with the EU's limited fiscal capacity, constrains the ability of the Union to combine the rapid and efficient whole-economy transition towards net-zero foreseen in the Green Deal with the pursuit of strategic autonomy in key clean energy technologies.

3. Bridging the gaps: Attempts at digital and energy cooperation

While the EU and the US have taken a different approach to digital and energy policies, they have also established avenues for dialogue and cooperation in these fields. These consultation and negotiation fora have not always led to policy alignment, as shown by the case of the IRA. Nevertheless, they can still help build joint positions to be promoted within broader multilateral fora, upholding shared values in an increasingly contested international arena.

3.1 Trying to see eye-to-eye on digitalisation

The EU-US summits of June 2021 and October 2023 represented an opportunity to, respectively, restate the joint commitment to work on digital issues within other fora, namely the Trade and Technology Council (TTC). In their 2021 joint statement, EU and US leaders “resolve[d] to drive digital transformation that spurs trade and investment, strengthens our technological and industrial leadership, boosts innovation and protects and promotes critical and emerging technologies and infrastructure”, all while cooperating on new technologies based on shared democratic values that rely on compatible standards and regulations.⁸⁷ In order to do so, the two partners launched the TTC together with an EU-US Joint Technology Competition Policy Dialogue. The purpose of this initiative is to encourage equitable competition in the digital sphere by improving shared strategies and cooperation in competition policy and enforcement.⁸⁸

⁸⁵ Daniel Gros, Philipp Leo Mengel and Giorgio Presidente, “The EU and the US Inflation Reduction Act”, cit.

⁸⁶ In April 2023, House Republicans already passed legislation to repeal many of the IRA's tax credits, which however was largely symbolic because its failure in the Senate was practically assured. See John Buhl, “House GOP Plan to Repeal IRA Incentives Would Hike Taxes for Households, Tilted toward High-Income Earners”, in *TaxVox*, 3 May 2023, <https://www.taxpolicycenter.org/taxvox/house-gop-plan-repeal-ira-incentives-would-hike-taxes-households-tilted-toward-high-income>.

⁸⁷ EU and US, *EU-US Summit 2021 Statement: Towards a Renewed Transatlantic Partnership*, 15 June 2021, point 16, <https://europa.eu/!Hy96mWj>.

⁸⁸ European Commission, *Competition: EU-US Launch Joint Technology Competition Policy Dialogue to Foster Cooperation in Competition Policy and Enforcement in Technology Sector*, 7

The October 2023 summit took stock of the progress made within these ad hoc fora, especially the TTC (see below), and discussed two issues pertaining to digitalisation: artificial intelligence and cybersecurity. In the broader commitment to jointly “promote an open, free, global, interoperable, reliable, secure, innovative, and competitive digital ecosystem”,⁸⁹ AI took centre stage, given the continuous evolution of this overly critical technology. The parties confirmed their desire to build systems to manage AI responsibly, both in the TTC and within other fora, such as the G7. The partners also reiterated their willingness to use AI for Public Good, for example in agriculture, climate and health, as well as to promote a responsible use of AI and expand joint research opportunities. The second item at the centre of the debate was the willingness to promote high cybersecurity standards for consumers and businesses. Transatlantic partners committed to working together on achieving mutual recognition for government-backed cybersecurity labelling programs and regulations for Internet-of-things devices, with the aim of creating a Joint CyberSafe Products Action Plan.⁹⁰

The Trade and Technology Council was established in 2021 “to coordinate approaches to key global trade, economic, and technology issues”.⁹¹ Convening once or twice a year, the TTC is presided by two members of the European Commissioners, namely Executive Vice-Presidents Margarethe Vestager and Valdis Dombrovskis, and three US cabinet members: Secretaries of State and Commerce Antony Blinken and Gina Raimondo as well as Trade Representative Katherine Tai. The platform is meant to achieve concrete results in building new governance structures and rules.⁹² The TTC consists of ten working groups dealing with the most challenging topics on which there is an interest in transatlantic convergence. The working groups pertaining to technology are those on technology standards, ICT security and competitiveness, climate tech, data governance, human rights and technology and small and medium-size enterprises (SMEs) digitalisation.⁹³

AI was one of the challenges that the EU and US administrations agreed to tackle since the very first TTC ministerial meeting in Pittsburgh in September 2021. A dedicated annex of the final Pittsburgh joint statement stated the willingness of the US and EU to “develop a mutual understanding on the principles underlining [sic] trustworthy and responsible AI”, discuss measurement and evaluation tools to assess such trustworthy AI, cooperate on AI technologies, and assess the potential

December 2021, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6671.

⁸⁹ US and EU, *U.S.-EU Summit Joint Statement*, cit., point 27.

⁹⁰ *Ibid.*, point 28.

⁹¹ European Commission website: *EU-US Trade and Technology Council*, https://commission.europa.eu/node/5655_en.

⁹² Emily Benson, Andrea L. Palazzi and William A. Reinsch, “The U.S.-EU Trade and Technology Council: Assessments and Recommendations”, in *CSIS Reports*, November 2022, <https://www.csis.org/node/67802>.

⁹³ European Commission website: *EU-US Trade and Technology Council*, https://commission.europa.eu/node/5655_en.

impact of AI on the workforce.⁹⁴

The second ministerial meeting of May 2022 took stock of progress made on this front – i.e., the creation of an AI subgroup – but the work had by then expanded to other technological issues. The joint statement provided a comprehensive overview of the different themes on each working group’s agenda, such as the streamlining of standards, R&D information exchange on emerging technologies like 6G, digital information integrity and online platforms, foreign information manipulation and interference and guidelines for the digitalisation of SMEs.⁹⁵

The third ministerial meeting of December 2022 took place against the background of the dispute over the IRA. However, in line with the spirit of the TTC, the focus was on results of transatlantic cooperation. In the area of ICT infrastructure, for example, joint initiatives with Jamaica and Kenya were announced that fully aligned with the partners’ G7 commitments (see below). Furthermore, work on finding common ground on AI continued, with the publication of a Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management (AI Roadmap),⁹⁶ as well as a pilot project on data privacy and AI development, and the intention to set research collaborations on AI for public goods. Furthermore, progress was made on other advanced technology collaboration such as quantum, electrical vehicle charging, Internet of Things and standardisation information sharing.⁹⁷

At the May 2023 ministerial meeting (TTC4) in Luleå, Sweden, further progress was achieved on developing common approaches to technological developments. New joint digital connectivity initiatives were announced with Costa Rica and the Philippines; an outlook on 6G to develop a common vision for this technology was published; a joint task force on quantum technology cooperation was created; and the parties reported on continued work on common standardisation efforts.⁹⁸ Nevertheless, AI cooperation was the item that gained the most attention. In addition to focusing more on generative AI going forward, the partners reported on progress under the Joint Roadmap, i.e. the issuance of a “list of 65 key AI terms essential to understanding risk-based approaches to AI, along with their EU and

⁹⁴ EU-US Trade and Technology Council, *U.S.-EU Trade and Technology Council Inaugural Joint Statement*, 29 September 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/29/u-s-eu-trade-and-technology-council-inaugural-joint-statement>.

⁹⁵ EU-US Trade and Technology Council, *EU-U.S. Joint Statement of the Trade and Technology Council*, 16 May 2022, <https://www.consilium.europa.eu/media/56726/eu-u-s-joint-statement-of-the-trade-and-technology-council.pdf>.

⁹⁶ European Commission, *TTC Joint Roadmap for Trustworthy AI and Risk Management*, 2 December 2022, <https://digital-strategy.ec.europa.eu/en/node/11380>.

⁹⁷ EU-US Trade and Technology Council, *EU-US Joint Statement of the Trade and Technology Council*, cit. Work continued on foreign information manipulation and interference and human rights and the Internet too.

⁹⁸ EU-US Trade and Technology Council, *Joint Statement EU-US Trade and Technology Council of 31 May 2023 in Lulea, Sweden*, https://ec.europa.eu/commission/presscorner/detail/en/statement_23_2992.

U.S. interpretations and shared EU-U.S. definitions”,⁹⁹ and mapping standardisation initiatives where both partners are involved and could collaborate on AI standards of mutual interest. These efforts aim to develop a joint understanding of AI risks, so as to contribute to better and more aligned AI governance both at the bilateral and multilateral level. In every summit statement the EU and the US have highlighted their joint efforts at regulating this emerging technology and at promoting parallel initiatives at the G7 level – such as the Guiding Principles and International Code of Conduct for Advanced AI Systems agreed upon at the G7 Summit of October 2023.¹⁰⁰

The joint work conducted on AI within the TTC framework is testament to the EU and the US effort in cooperating on such a high-stakes digitalisation domain – especially because the same cannot be said of the commercial component of the Council, as previously illustrated. The fifth TTC ministerial meeting took place on 30 January 2024 in Washington D.C. and discussed various issues, including expanding transatlantic cooperation in critical and emerging technologies, with the focus again on AI. The meeting emphasised the importance of TTC’s role in developing responsible rules, as well as compatible and interoperable standards. A further ministerial meeting in Brussels should take place later this year, demonstrating a commitment to this cooperation and coordination forum. Thus, the AI component of the TTC workstreams are expected to remain active in the coming months, hopefully surviving any trade-related tensions that might occur.

3.2 Taking energy cooperation beyond security of supply

The two EU-US Summits under the von der Leyen and Biden presidencies also addressed energy cooperation, notably within the EU-US Energy Council.¹⁰¹ Established in 2009, it convenes the High Representative for Foreign Affairs and Security Policy and Commission Vice-President (HRVP), the Energy Commissioner and the US Secretaries of State and Energy. The most recent Energy Council, held on 4 April 2023, reaffirmed the convergence on decarbonisation objectives and on the support for European independence from Russian gas. The two sides agreed to cooperate on energy transition investments “in a transparent and mutually reinforcing manner avoiding zero-sum competition at the transatlantic level and around the globe”.¹⁰² This commitment builds on the March 2023 Joint Statement by

⁹⁹ European Commission, *EU-U.S. TTC: Call for Input on First Edition of WG1 Terminology and Taxonomy for Artificial Intelligence*, 3 November 2023, <https://digital-strategy.ec.europa.eu/en/node/12140>; and *EU-U.S. Terminology and Taxonomy for Artificial Intelligence*, 31 May 2023, <https://digital-strategy.ec.europa.eu/en/node/11835>.

¹⁰⁰ European Commission, *Commission Welcomes G7 Leaders’ Agreement on Guiding Principles and a Code of Conduct on Artificial Intelligence*, 30 October 2023, <https://digital-strategy.ec.europa.eu/en/node/12133>.

¹⁰¹ EU and US, *EU-US Summit 2021 Statement*, cit.; and *EU-US Summit Joint Statement*, 20 October 2023, <https://europa.eu/!M8GnN4>.

¹⁰² EU and US, *Joint Statement by the EU and the US following the 10th EU-US Energy Council*, 4 April 2023, point 16, https://ec.europa.eu/commission/presscorner/detail/en/statement_23_2121.

Presidents Biden and von der Leyen, in which they committed to complementarity between US and EU clean energy transition strategies and established a Clean Energy Incentives Dialogue to further this coordination.¹⁰³ A Business to Business (B2B) Forum associated with the EU-US Energy Council convenes technology-specific public and private sector leaders to enhance coordination and to share best practices. The latest B2B Forum took place in Atlantic City in April 2022 and centred on Offshore Wind.¹⁰⁴

In response to the energy crisis, worsened by Russia's war against Ukraine, Biden and von der Leyen established the EU-US Task Force on Energy Security in March 2022. The task force provides an opportunity for senior members of the US administration and the European Commission to conduct a targeted exchange and coordinate strategies towards EU independence from Russian fossil fuel imports. The Task Force meets much more frequently than the Energy Council. It held its eleventh and most recent meeting in October 2023.¹⁰⁵ An April 2023 progress report of the Task Force credits the forum with the increase in US LNG exports to the EU and renewed the pledge to work together on this issue, in addition to methane emissions and energy efficiency.¹⁰⁶

Coordination on energy and industry transition has also been discussed within the TTC. At the second TTC in May 2022 in France, the transatlantic partners resolved to work together on secure renewables supply chains and vehicle-to-grid integration. A set of technical guidelines on vehicle-to-grid integration, jointly prepared by the EU's Joint Research Centre and the Department of Energy, was published in May 2023.¹⁰⁷ Within the framework of the TTC, work is also ongoing to mobilise a Transatlantic Initiative on Sustainable Trade (TIST), launched in December 2022, which aims to promote trade in products that accelerate the net-zero transition in a mutually beneficial way. The TTC is currently collecting stakeholder input on the work programme for TIST.¹⁰⁸

Beyond these fora for bilateral cooperation, the EU and US also cooperate in multilateral fora on energy and climate issues. The Global Methane Pledge, launched at COP26 by the EU and US, which aims to rescue methane emissions globally

¹⁰³ US and EU, *Joint Statement by President Biden and President Von der Leyen*, cit.

¹⁰⁴ European Commission, *U.S.-EU High-Level B2B Forum on Offshore Wind*, 27 April 2022, https://commission.europa.eu/node/27099_en.

¹⁰⁵ EU-US Task Force on Energy Security, *Joint Statement following the Latest Meeting of the EU-US Task Force on Energy Security*, 31 October 2023, https://ec.europa.eu/commission/presscorner/detail/en/statement_23_5470.

¹⁰⁶ EU-US Task Force on Energy Security, *Progress Report and Outlook 2022-2023*, April 2023, https://energy.ec.europa.eu/system/files/2023-04/EU-US%20Energy%20Security%20TF_report_final_0.pdf.

¹⁰⁷ European Commission, *EV Charging Infrastructure Rollout: EU-US Technical Recommendations Are Out*, 31 May 2023, https://joint-research-centre.ec.europa.eu/node/9041_en.

¹⁰⁸ European Commission, *Event Invitation - Crafting the Transatlantic Green Marketplace: Stakeholder Event Under the Transatlantic Initiative for Sustainable Trade (TIST) 30-31 January 2024, in Washington, D.C.*, <https://futurium.ec.europa.eu/en/node/12717>.

by 30 per cent by 2030 (compared to 2020 levels), now counts 152 participants (including all EU member states).¹⁰⁹ Another example of EU-US cooperation and coordination in a multilateral context is the Just Energy Transition Partnerships (JETPs), which aims to help heavily coal-dependent countries to decarbonise their energy sector. So far, such partnerships have been launched with South Africa, Indonesia, Vietnam and most recently Senegal.¹¹⁰

Initiatives such as the push for the establishment of a G7 Climate Club have opened up new, plurilateral avenues for cooperation.¹¹¹ The EU has also proposed to establish a Critical Raw Materials Club as a forum for dialogue and coordination between like-minded countries with large demand for these materials and those able to supply them.¹¹²

Conclusion: What lies ahead?

Efforts to address the challenges of digital development have highlighted clashing interests and persistent policy divergences between the EU and the US. The EU's aim is to maintain leadership in global standard-setting while ensuring fair competition in its domestic market. The US employs a market-centric approach, prioritising the competitiveness and global technological domination.

Despite these divergences, the transatlantic partners have made significant progress in cooperating. The work conducted so far within the Trade and Technology Council on AI, quantum, 6G, cybersecurity and digital infrastructure to this. Arguably, the AI taxonomy developed under the Joint Roadmap also shows that different regulatory approaches do not necessarily prevent the parties from reaching a joint understanding of AI-related risks.

The energy crisis has contributed to a rapprochement between the EU and the US, not least through the establishment of the Energy Security Task force, through which the United States has undertaken to maintain a favourable regulatory environment to support additional LNG export capacities to Europe and the EU Commission has vowed to collaborate with EU member states' governments, expediting regulatory processes for reviewing and approving LNG import

¹⁰⁹ See the official website: <https://www.globalmethanepledge.org>.

¹¹⁰ European Investment Bank, *Senegal and International Partners Announce a Just Energy Transition Partnership Combining Climate and Development Objectives*, 23 June 2023, <https://www.eib.org/en/press/all/2023-242-senegal-and-international-partners-announce-a-just-energy-transition-partnership-combining-climate-and-development-objectives>.

¹¹¹ "G7 Establishes Climate Club to Support Green Transition", in *Reuters*, 12 December 2022, <https://www.reuters.com/business/environment/g7-establishes-climate-club-support-green-transition-2022-12-12>.

¹¹² For an analysis, see Francesco Findeisen, "The Club Approach. Towards Successful EU Critical Raw Materials Diplomacy", in *Jacques Delors Centre Policy Briefs*, 31 October 2023, <https://www.delorscentre.eu/en/publications/critical-raw-materials-club>.

infrastructure. Both parties have also pledged to work towards achieving the Paris Agreement's goals and announced their resolve "to negotiate and then implement an ambitious emissions-based Global Arrangement on Steel and Aluminum Trade".¹¹³ The challenge will be to leverage existing platforms for dialogue or expedite the establishment of new fora such as the Critical Raw Materials Club and the Clean Energy Incentives Dialogue with an eye to aligning cleantech strategies. The initial IRA-induced shock among EU analysts and policymakers is giving way to a more nuanced appreciation of the advantages and drawbacks of both EU and US models. This may help devise constructive approaches to realising potential synergies. These need to be found quickly given the tight timeframes, particularly the one envisaged by the EU regulatory plans. A challenge in moving forward in the same direction may be divergences over China.¹¹⁴

The future direction of transatlantic technology and energy cooperation will be affected by domestic and international factors. The 2024 EU and US elections, in particular, are a huge variable. Other crucial factors include international developments in conflict areas and new technological breakthroughs. There is ample common ground to build upon in the next months, but political will remains crucial to strengthen the consultation and negotiation frameworks and the cooperation instruments that have been established so far. The fifth meeting of the Trade and Technology Council, which is expected to be announced soon will be the first litmus test.

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¹¹³ European Commission and US, *Joint Statement between the European Commission and the United States on European Energy Security*, 25 March 2022, https://ec.europa.eu/commission/presscorner/detail/en/statement_22_2041.

¹¹⁴ On this issue, see a potential approach put forward by Alicia García-Herrero, Heather Grabbe and Axel Källenius, "De-risking and Decarbonising: A Green Tech Partnership to Reduce Reliance on China", in *Bruegel Policy Briefs*, 26 October 2023, <https://www.bruegel.org/policy-brief/de-risking-and-decarbonising-green-tech-partnership-reduce-reliance-china>.

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