

RETHINKING DEMOCRATIC TECH GOVERNANCE IN THE EURO-ATLANTIC: A TTC PROGRESS REPORT

— TYSON BARKER

The U.S.—and to a lesser extent, the EU—have undertaken two strategic shifts in their approach to democratic tech governance. The first, particularly in the case of the U.S., is the shift away from classical treaty-based, trade-centered agreements to more flexible arrangements like the U.S-EU Trade and Technology Council (TTC) based on the nexus of technology, industrial policy and trade as a means to create fit-for-purpose international partnerships with democratic and like-minded states. The second is the shift in understanding of strategic technology access and control of the innovation industrial base as a source for geopolitical power—with implications for economic security for strategic technology and a renaissance in techno-industrial policy. Taken together, they provide a broad diplomatic trajectory in digital technology, an area where national security, tech-industrial competitiveness and human rights converge. This article attempts to address how the U.S.-EU partnership is responding to these shifts and what it means for their joint efforts to support norms, technical standards, protocols, means of communications, international institutions, and ultimately international digital order.

RETHINKING DEMOCRATIC TECH GOVERNANCE IN THE EURO-ATLANTIC: A TTC PROGRESS REPORT

Against the backdrop of a darkened global tech order, the U.S.—and to a lesser extent, the EU—have undertaken two strategic shifts in their approach to democratic tech governance. The first, particularly in the case of the U.S., is the shift away from classical treaty-based, trade-centered agreements to more flexible arrangements based on the nexus of technology, industrial policy and trade as a means to create fit-for-purpose international partnerships with democratic and like-minded states. For the U.S., this approach is centered around the U.S.-EU Trade and Technology Council (TTC) in the Euro-Atlantic and the Quad/Indo-Pacific Economic Forum (IPEF) in the Indo-Pacific. The second is the shift in understanding of strategic technology access and control of the innovation industrial base as a source for geopolitical power—with implications for economic security for strategic technology and a renaissance in techno-industrial policy.

Taken together, they provide a broad diplomatic trajectory in digital technology, an area where national security, tech-industrial competitiveness and human rights converge. In operational terms, they create the foundation for Washington's tech governance and international coordination to bend Russia's war on Ukraine in Kyiv's favor and address the chronic challenges of techno-authoritarianism posed by China in the

Indo-Pacific and globally. The shifts open the opportunity to broaden political discourse in Europe about what a comprehensive approach democratic technology governance with the U.S. and other democracies might look like. Currently, however, that discourse is fraught with frustrating inconsistencies, contradictions, and recriminations—at times strengthening collaboration but also exposing tensions between the U.S. and its democratic allies in Europe.

This article attempts to address how the U.S.-EU partnership is responding to these shifts and what it means for their joint efforts to support norms, technical standards, protocols, means of communications, international institutions, and ultimately international digital order. First, it will look at the origins and design of the shift toward the TTC as a potential embryonic model for democratic technology coordination. Second, it will examine the animating logic, conditions and constraints that led to changes in U.S. thinking on technology access and control on the other, with special attention to its ramifications in Europe. Finally, it concludes with some brief reflections of what this means for the TTC's future.



FROM TTIP TO TTC: RETHINKING DEMOCRATIC TRADE AND TECH PARTNERSHIP IN THE EURO-ATLANTIC

The first shift is the from static free trade agreement (FTA) frameworks which require ratification by legislators and are principally meant to lower tariffs on good toward executive-centered to draw authorities pre-established in domestic regulatory frameworks and attempting to forge convergence on future governance. As such, negotiating power is more concentrated within the executive and approaches can theoretically better match rapid development cycles of technologies, themselves. At the same time, these flexible arrangements can become victim to changes in political leadership—making the stickiness of agreements an open question.

Prior to 2016, the United States conceived its approach to the global tech order in more laissez-faire terms layered over the evolving multilateral and FTA-based trade order. Specifically, it aspired to a system of mega-FTAs centered on the Transpacific Partnership (TPP) in the Indo-Pacific and the U.S.-EU Transatlantic Trade and Investment Partnership (TTIP) in the Euro-Atlantic. As the multilateral system became increasingly dysfunctional, these mega-FTAs, TPP and TTIP, would serve the twin-pillar framework for a new rules-based geo-economic order where market access, tariff reduction, regulatory convergence, free flow of digital services and data governance as a means of managing China's rise as a trade and technological power. Together TPP and TTIP would create a sort of geo-economic containment strategy for China that shapes its behavior and corrects past abuses following its 2000 WTO accession. More broadly, it could establish the scaffolding for digital trade and digital services tied to rule of law, worker conditions, consumer rights and environmental protection as digital trade and services takes up an increasingly large proportion of global commerce. While this approach envisioned regulatory convergence at its heart, it continued to rely on the static framework of the FTA, principally meant for tariff reduction on goods.

But that vision collapsed in spectacular fashion, driven in part by Trump's 2016 election but also by the U.S. middle class backlash to the justice and equity dimensions of classical trade agreements, particularly around TPP.

In the Euro-Atlantic, TTIP negotiation rounds ground to a stand-still against the backdrop of popular opposition in four key European countries. First and foremost, among them was Germany—Europe’s true progenitor of TTIP—where the population opposed negotiations 59% to 27%¹ and anti-TTIP protests drove 150 thousand Germans to the streets of Berlin in 2015.²

What followed was a vacuum in Euro-Atlantic coordination on democratic technology governance. The vacuum was filled, instead, by a volley of Euro-Atlantic recriminations on everything from data protection to digital taxation to unilateral restrictions on Huawei’s market access to Trump administration threats of 232 tariffs on European vehicles. In the absence of a Euro-Atlantic anchor, the EU initiated a High-Level Digital Dialogue with China focused on ICT standard-setting, AI, product safety of goods sold online, digital taxation and research and innovation.³

In fact, the EU’s disappointing experience with seeking digital accommodation with China—reinforced by the Biden 2020 victory—drove it, in part, to approach the U.S. with a flexible arrangement based on the reinforcing areas of trade and technology.⁴ After a slow uptake, the Biden administration became deeply invested in this tech governance approach. So much so that the Biden Administration’s 2022 National Security Strategy posits the US at the center of a group of “like-minded actors to advance an international technology ecosystem that protects the integrity of international standards and promotes free flow of data with trust while protecting our security, privacy, and human rights and advancing our competitiveness.”⁵ It envisions a reboot of the TPP-TTIP system along this flexible arrangement model—based, instead, on the U.S.-EU Trade and Technology Council (TTC), the Quad⁶, and Indo-Pacific Economic Framework (IPEF).

The TTC’s pilot phase is ending. Now an audit of its initial experience in advancing democratic tech governance is warranted. How is it doing? First, it is worth looking at the structure. The TTC’s inter-ministerial design—with Co-Chairs from State, Commerce and USTR on the US side and the Commission’s Executive Vice Presidents for Digital and Trade on the EU side—attempts to grapple with high degrees of complexity that makes streamlining the triple helix of Euro-Atlantic technology, economic security and industrial policy immensely difficult.

Generally, the TTC has three coordinating layers—a principals-level, a deputies-level and a “sherpa” level of senior coordinators—and then the ten working groups that work across the U.S. and Commission. The strategic layer has become primarily an action-forcing layer. The TTC, below the minister level, has become a sort of Euro-Atlantic interagency process. Specific recommendations should be directed at working group co-chairs. At the same time, it avoids fetishizing the working group structure, itself, as many important issue areas (research protection; ICT elements of the \$600 billion Partnership for Global Infrastructure and Investment (PGII); most aspects of cybersecurity) do not fit neatly in its structure.

As such, the TTC reflects the cross-cutting nature of digital policy-making in democracies. Equally important is the contact frequency that forges a sense of Euro-Atlantic common mission and better understanding of the objectives and instruments of the other side.

This was most evident in the TTC’s most significant accomplishment thus far: Euro-Atlantic coordination on March 2022 U.S. Foreign Direct Product Rule application on Russian access to semiconductor supply chains post-February 24. The FDPR—perhaps the most devastating cost imposed on the Russian war economy—cut off Kremlin access to drones, aviation equipment, defense systems, data centers, even refrigerators.⁷ Prior to the war, TTC Working Group 7 (Cooperation on Export Controls of Dual Use Items) built the muscle memory that allowed for the rapid imposition of U.S. export controls across the EU’s 27 member-states with carve-

outs for essential European commercial interests. That compressed FDPR implementation by six to eight weeks.

But the effort to forge a common mission has also fed into confidence building quickly becomes important when looking at the TTC's scope. At its 2021 founding, the European Commission established four implicit "red lines" it wanted to avoid. First, it wanted to avoid the perception that the TTC becoming a TTIP resurrection—the low political appetite for FTAs in the U.S. combined with the political polarization that resulted from TTIP talks in 2014-6 made a clear distinction from classical FTA negotiations a necessary condition on both sides of the Atlantic. Second, it wanted to avoid the TTC become a negotiation forum for live European legislation, specifically the Digital Markets Act (DMA). Third, it wanted to avoid the perception—particularly among some member-states like Germany and France—that TTC was an embryonic anti-China alliance. Germany, in particular, is strongly invested in a "multipolar" approach to world markets, meant to preserve bilateral techno-industrial market access for both China and Germany.⁸ Finally, the TTC should not be the venue to negotiate a successor agreement to Privacy Shield, the framework that allowed for the free flow of European personal data to flow to U.S. in a GDPR-equivalent manner. In its each case, the TTC's confidence building culture allowed the U.S. and EU to subtly dismantle each of these red lines.

On China, for example, joint positions on market access in "forced labor" in the production of solar technologies, social scoring by "authoritarian states," and cooperation to manage trade practices by "non-market economies. These are all code for China. As a geopolitical matter, one European senior official said that China and Russia were discussed "in equal amount" at the December 2022 College Park TTC. As a result, December 2022 TTC mentioned China explicitly as a subject of "coordinated action" for the first time.⁹

One of the enablers of this built trust has been the TTC's ecosystem model of policy management. Because the "TTC ecosystem" model warrants that it will be better managed as an adjacent issue in order to keep focus on emerging digital regulation and tech access convergence rather than becoming bogged down by irritants. In this sense, it seems both sides have learned from past fail

starts at geo-economic governance.¹⁰ At the same time, TTC has been able to develop its own gravitational orbit for adjacent technology convergence and breakthrough.

In its short life, meaningful examples exist. For one—the post-Privacy Shield Data Privacy Framework (DPF) agreement would not have been possible without the TTC.¹¹ The Data Protection framework, which the EU and U.S. negotiators argue is a "durable solution" in line with European Court of Justice (ECJ) and the EU's General Data Protection Regulation (GDPR), is based on three basic principles: redress for European citizens, enforceable individual rights and limitations on disproportionate interference with Europeans' privacy.

Second—the TTC created the connective tissue for greater European buy-in to the U.S.-led Declaration on the Future of the Internet (DFI), a Biden Administration-led statement of joint principles in support of a "open, free, global, interoperable, reliable, and secure Internet."¹² While the intent behind DFI—launched in April, 2022 as part of the U.S. broad Summit for Democracy initiative—was a laudable advancement of digital age diplomacy attempting to reaffirm a multistakeholder Internet governance model, it contained two intrinsic flaws at its inception. First, it championed multi-stakeholderism even as civil society, private sector and technical community experts were excluded from its drafting. Second, while it garnered more than 60 state signatories at its launch, none of the systemically important techno-democracies of the Global South—Brazil, India, South Africa, Mexico, Indonesia, Malaysia, and others—was among them. Through the TTC, the European Union effectively took up the mantle of DFI underwriter to address these issues—organizing the DFI's first high level multistakeholder event in Prague¹³ and engaging in intense diplomacy to incorporate more state and non-state actors from the Global South.

Finally—adjacent to—but not included— in the TTC's Working Group One on Technical Standards, the TTC provided the coordination platform for the successful joint U.S.-EU campaign to support the U.S. candidate for Secretary General and EU candidate for Deputy Secretary General in the International Telecommunications Union in September 2022 elections in Bucharest, a first step in reasserting democratic capacity on technology standards

at international standards organizations following years of steady Chinese influence accumulation.

In core areas of its work, however, the TTC has underperformed somewhat. On technical standards, both sides are seeing progress in AI standardization. The White House's Blueprint for an AI Bill of Rights captures many of the same principles contained in the EU's AI Act. Although voluntary and normative in nature, the principles in the AI Bill of Rights are finding more enforceable expression in state and local law, regulatory enforcement action by the Federal Trade Commission (FTC) and in private sector-driven technical standards.

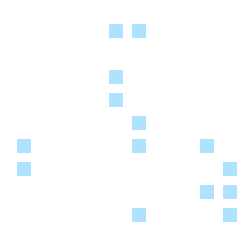
For instance, the TTC has released on a Joint U.S.-EU Roadmap to create scaffolding on risk management and trustworthiness.¹⁴ The roadmap draws of the work of the EU's High Level Expert Group (HLEG) for AI, the NIST Risk Management Framework (RMF) and the AI Bill of Rights to:

- 1) address shared terminologies and taxonomies;
- 2) establish the basis for leadership and cooperation in international technical standards development activities and analysis and collection of tools for trustworthy AI and risk management; and
- 3) create instruments for monitoring and measuring existing and emerging AI risks. But this work will be asymptotic. As the AI roadmap states, it is "intended to be compatible with the respective regulatory, policy, and legislative initiatives of the two sides."¹⁵

Regulatory operating systems on both sides of the Atlantic have created the space for convergence—for example in eased recognition of AI conformity assessments—and cooperation in the OECD, International Standards Organization, Council of Europe and Global Partnership on AI processes. On technical standards elsewhere, the TTC is inching forward on Heavy-Vehicle Megawatt Charging Systems, IoT cyber, additive manufacturing and digital identity but have not made the expected gains given adoption rates. Quantum standards are also in development but remain largely undefined in its broad use-cases (sensors, cryptography, computing). That reflects the nascency of these governance questions but needs to move more quickly to meaningful standards topography—and joint R&D collaboration—than AI has.

Similarly on the U.S.-EU joint effort to counter China's BRI in the global South. The soaring Euro-Atlantic rhetoric is increasingly divorced from reality amid rollout delays, lack of concrete projects and modest private sector interest. In line with the Saclay ICT Trustworthiness Principles, the TTC launched ICT projects in Jamaica and Kenya. On Jamaica, connectivity of 1000 schools and children's homes as well as political partnership with the Jamaica Public Service for smart city technology in the New Kingston neighborhood and trusted vendor ICT infrastructure build-out across Jamaica's rural areas. On Kenya, support is for the country's 2022-32 National Digital Masterplan including in areas 5G infrastructure. The U.S. and EU were successfully able to fend off adoption of Chinese IP standards in Rwanda as part of the Strategic Standardization Information Mechanism.

The TTC pilot projects in Jamaica and Kenya will contribute to PGII efforts but thus far lack the level of early ambition of, for example, joint undersea cable projects in the Arctic that would link Japan, the EU and Alaska or along the East African coastline linking Cape Town to Cairo—both originally envisioned. Moreover, it remains unclear whether the TTC "ICT Principles of Trustworthiness"—the common song sheet for minimizing Euro-Atlantic finance of Chinese tech infrastructure in the Global South—would apply within EU-space, itself. A number of European states have involved Huawei as a majority provider of 5G RAN network infrastructure. Even on the issue of Open RAN, the TTC has not been able to forge consensus on the desirability of an open, interoperable technical standard that could break the current telco equipment oligopoly that disproportionately privileges Huawei, globally. Efforts on online rights of human rights defenders, joint assessments of Internet shutdowns and use compute power to create models as a "public good" including for 3rd countries that will allow for weather forecasting, optimization of agriculture, energy and traffic and support emergency response. While meaningful, the TTC's inability to get beyond the tyranny of near-term "deliverable harvesting" has become an obstacle to rule-making convergence and joint project that have a longer maturation cycle than the time between the biannual principals' meetings.



INDUSTRIAL POLICY AND ECONOMIC SECURITY: THE TTC TENSIONS BETWEEN STRATEGIC INTERDEPENDENCE AND STRATEGIC AUTONOMY

But in many ways, TTC's real near-term effectiveness is being defined by its ability to bridge differences in the nexus between strategic tech industrial policy and global tech-economic security. The United States has designated three areas of strategic technology as "force multipliers"—computing power, biotechnology and green tech.¹⁶ For each of the three, the US government will pay greater attention in the formulation of industrial policy, investment screening and export/import governance to maintain maximal innovation distance between the United States and China.

In this, initial TTC experience with industrial policy in two of the areas called "force multipliers" has been decidedly mixed. On U.S. development of the \$52.7 billion CHIPS and Science Act—through all its Congressional machinations—the Commerce Department and Commission officials crisscrossed the continents warning that one of their highest priorities is avoiding a "subsidy race."¹⁷ The TTC logic was centered on that principle. U.S. and European reshoring have been offset by efforts to create a delicate balance around semiconductor industrial policy that create complementarity and reinforce strategic interdependence, a necessity given the complexity of chip input supply chains. Together they have engaged in efforts to map supply chain vulnerabilities and share information on subsidy requests in a manner that is "balanced and of equal interest for both sides."¹⁸

Washington's chip export control, however, was less concerned with incorporating effected democratic partners. With its October 7, 2022 dual use export control announcement, the White House recalibrated its philosophy based on the "strategic environment" and "foundational nature" of the technology, to forge a policy that widens the lead of the democratic chip as much as possible.¹⁹ That policy placed particular strains on democracies with unique positions in the global semiconductor ecosystem—notably Taiwan, Japan, the Netherlands and South Korea—at the bleeding edge of

chip production (below 10 nanometers). Previously, this meant cutting off Chinese access to equipment—specifically extreme ultraviolet lithography (EUV) technology. Following its October 7 shift, Commerce signaled its interest in working with the Dutch, Japanese and others to degrade China's chip equipment maintenance capacity. But the Commission remains without a mandate to discuss export controls on China given the plurality of views in the EU's 27 member-states.

On green tech, the story is somewhat reversed. Attempts to forge early consensus on market access restrictions—for example, on the use of forced labor in solar panel technology—have shown some degree of convergence. But the industrial policy side reveals some limitations. In contrast to the U.S. CHIPS and Science Act, whose development was driven by the White House and always contextualized in consultation with partners, the Inflation Reduction Act (IRA) was stitched up among a small group in Congress with almost no White House input or consultation with international partners. The IRA allocates \$369 billion over 10 years which will drive approximately 15% of greenhouse emissions reductions agreed to by the US under the Paris Agreement. Of that, \$7.5 billion targets electric vehicle adoption. The IRA's aim is to dramatically accelerate EV adoption in the US, which accounted for 10% global EV sales in 2021 as opposed to 35% in China and 40% in the EU.²⁰

For Europe, IRA overhang has clouded the TTC, primarily as both sides failed to anticipate the degree of its potential distortions.²¹ Some in the EU see the threat that the IRA could suck next generation green tech jobs from Europe to the United States and contribute to general deindustrialization.²² In early November, the Commission outlined 9 specific tax credit provisions in detail, particularly on domestic content and final assembly requirements for electric vehicles criticizing the provisions for potential "cumulative market distortion" that turns "the common global objective-fighting climate change—into a zero-sum game."²³

The subsidies are already having impact as European companies are increasingly recalibrating their production strategies to account for US subsidies. For instance, European EV battery maker, Northvolt, made a U.S. location decision citing could receive \$600 million in

subsidies to build a factory in the US compared to around one fourth of that in Germany. Others have followed suit. South Korea's Hyundai has committed to a \$5.54 billion investment in EV and batteries in Georgia; Japan's Toyota is investing \$3.8 billion for EV batteries for 1.2 million vehicles; BMW \$1.7 billion on EV and battery capacity in South Carolina.²⁴

The EU reflex was to call an emergency TTC meeting to address IRA, ultimately leading to the IRA Task Force.²⁵ Moreover, the TTC's Transatlantic Initiative for Sustainable Trade, launched in College Park, also provides an avenue to create IRA stabilizers. This is new and not broadly socialized. Consistent with the ecosystem model, the IRA was not a central agenda item at the December 2022 College Park TTC meeting—even as it remained central to Euro-Atlantic tech and trade relations. First, because it requires involvement of the U.S. Treasury Department, the agency overseeing the tax code. Second, the ballast of addressing the moment's primary tech industrial policy irritant threatened to derail other issues. Brussels saw the U.S.-EU political "agreement in principle" model on Privacy Shield 2.0 that eventually led to the DPF as a model for to de-escalate a potential green subsidy war. As such, the TTC provided the basis for shock absorbers at a moment of tension. As with immediate post-Ukraine invasion semiconductor IP export controls against Russia, the TTC compressed the time necessary to establish a working basis.

Europe is not innocent in the techno-import substitution industrialization game. In the name of its own quest for digital sovereignty, strategic autonomy and concern

about U.S. data dominance, the European Commission has been assiduous in keeping the Data Act and cloud rules out of the TTC's Working Group Five. Given its transformative impact on data access sharing obligations, potential impact on cross-border non-PII data flows and cloud computing interoperability and portability, it is surprising that the U.S. has not been more assertive in setting the Data Act and Cloud governance as priority topics in the TTC. In particular, ENISA's approach to Cyber Certification Scheme for Cloud Services (EUSC) based on the French SecNumCloud model, aspires to shut out U.S. hyper-scalers on the grounds that U.S. cyber and intelligence activity could create vulnerability in European cloud security.

The deepening Euro-Atlantic strategic tech market will be the benchmark the TTC's ability to cast its throw-weight toward shaping democratic tech governance globally.

Access and control over, cloud, Internet infrastructure, advanced algorithms, quantum technology, and semiconductors have become central to economic, strategic, and democratic power and vulnerability. Given COVID-based and geopolitical supply chain shocks, even friend-shoring among democracies has a hint of conditionality to it. Both U.S. and increasingly European policy is replete with snap-back and defense production provisions that allow greater state control of the flow of critical technology beyond their borders.





THE TTC AND DIGITAL SOVEREIGNTY

The TTC was designed to be a necessary but insufficient basis to manage Euro-Atlantic tech convergence. While its initial results are mixed, the question remains: if the TTC did not exist, would the U.S. and EU have to invent it? Its durability, effectiveness and democratic legitimacy, however, will likely depend on meeting three conditions. First, TTC working groups must simultaneously address short-term, event-driven action—“the sprint”—while simultaneously developing strategic foresight to plan for mid-term technological action—“the marathon”—and their Euro-Atlantic and international impact.²⁶ Second, civil society engagement on TTC remains lackluster and awareness, even among the policy community, remains limited, especially in elected parliaments. If the TTC is to succeed, it should be a bottom-up driven process with more space for inputs from outside stakeholders. Finally, the TTC’s success is wrapped up in how both sides of the Atlantic decide to pursue their quest for “digital sovereignty.” Should “digital sovereignty” be rules-centric grounded in fundamental rights, data rules, competition, open markets and strategic interdependence between democratic actors? Or should it be player-centric based on technological import substitution industrialization and emancipation from external digital services in critical technology—what some Europeans call the “Third Way”?

Both sides will have to decide which vision they choose. For the TTC—and, more importantly, the democratic tech order—it is likely better that they chart a clearer path together. The TTC’s pilot phase offers two potential avenues to build on. First, its effectiveness should be

directed in how it addresses differences in strategic tech industrial policy and global tech-economic security in the three areas of strategic technology deemed as “force multipliers”—computing power, biotechnology and green tech. The objective of deepening “strategic interdependence” in the development and governance of these three areas within the space of democratic states. Second, the TTC has been able to use its throw weight to create technology convergence and breakthrough in adjacent areas not directly covered in core TTC work—including on difficult issues like data privacy, industrial policy, democratic coalitions around principles (DFI) and in standard-setting bodies (ITU).

The “TTC ecosystem” model has demonstrated some irritants are better managed adjacent to the TTC to keep focus on emerging digital regulation and tech access convergence. The U.S., EU and other democracies should employ this ecosystem model in other bilateral and regional democratic tech governance arrangements.

Against the backdrop of rapid technological change, a transatlantic digital technology community could be a 21st century answer to the European Coal and Steel Community—a big democratic project that reaches across borders, knits like-minded communities together in a manner that reinforces shared values, and codifies standards of market access, increased interdependence, and intensified political dialogue. In the face of authoritarian technology, that aspiration is more urgent than ever.

ENDNOTES

- 1 Including: Germany, Austria, Luxembourg and Slovenia. European Commission. Standard Eurobarometer Autumn 2016 (Nov 3–16). <https://europa.eu/eurobarometer/surveys/detail/2137>
- 2 „So viele Kamen Noch Nie—Massendemo gegen TTIP.“ Spiegel Online. (Oct 10, 2015). <https://www.spiegel.de/wirtschaft/unternehmen/ttip-demonstration-in-berlin-stellt-teilnehmerrekord-auf-a-1057187.html>
- 3 European Commission. „EU-China: Commission and China Hold First High-Level Digital Dialogue. (Sept 10, 2020). https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1600
- 4 European Commission. „EU-US: A New Transatlantic Agenda for Global Change.“ (Dec 2, 2020). https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2279
- 5 White House. National Security Strategy. (October 2022), <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>
- 6 The U.S., Japan, India and Australia.
- 7 Industry and Security Bureau, Department Of Commerce. “Implementation of Sanctions Against Russia Under the Export Administration Regulations (EAR).” (March 3, 2022). <https://www.federalregister.gov/documents/2022/03/03/2022-04300/implementation-of-sanctions-against-russia-under-the-export-administration-regulations-ear>
- 8 The current German government has embarked on a “de-risking” charm offensive across the Global South with a trip to India, LAC and China—meant to forge partnerships with all power-centers in a “multipolar world,” somewhat at odds with Washington’s Great Power competition framework. This can be seen in Germany’s approval of a COSCO 24.5% stake acquisition of the most technologically advanced of the three terminals in the Hamburg port; the continued use of Huawei 5G network infrastructure in up to 59% of RAN infrastructure; BSI certification of ZTE 5G equipment as trustworthy; and pushes by the Chancellery to limit government assumption of risk for German FDI in China, particularly to VW. China makes up 30% of global German auto sales, including 1/5 of total auto sales in China—a key stabilizer in Germany’s post-Covid, Russia-war era economic stabilization. Hubik, Franz and Roman Tyborski. “Deutsche Hersteller verkaufen wenig Elektroautos in China.” In Handelsblatt. (Feb 27, 2023). <https://www.handelsblatt.com/unternehmen/industrie/mercedes-bmw-vw-deutsche-hersteller-verkaufen-wenig-elektroautos-in-china/28992142.html>
- 9 “...we will continue building a shared understanding of China’s economic and industrial directives and other non-market policies and practices, and develop coordinated action to foster supply chain diversification, build resilience to economic coercion, and reduce dependencies.” White House. U.S.-EU Joint Statement of the Trade and Technology Council. (Dec 5, 2022). <https://www.whitehouse.gov/briefing-room/statements-releases/2022/12/05/u-s-eu-joint-statement-of-the-trade-and-technology-council/>
- 10 In April 2007, the Bush Administration and Germany’s EU presidency launched the Transatlantic Economic Council (TEC)—the genesis of post-Iraq War reconciliation represented in a Euro-Atlantic relationship centered on trade and technology. It aspired to reframe the U.S.-EU relationship rather than NATO, cutting across departments, and, most importantly, recognizing the “green field” potential of early regulatory cooperation on emerging technologies in areas like EV batteries, biotech and medical devices. But the process became bogged down in U.S. demands that EU provide European market access for U.S. poultry products disinfected through chlorine solution. This Bush administration make-or-break demand ultimately broke the TEC by 2009. See: Bertelsmann Foundation and Atlantic Council. “Resetting the Transatlantic Economic Council.” (Oct 2009). https://ciaotest.cc.columbia.edu/wps/atlantico/0031789/f_0031789_25800.pdf
- 11 White House. Executive Order On Enhancing Safeguards For united States Signals Intelligence Activities. (Oct 7, 2022). <https://www.whitehouse.gov/briefing-room/presidential-actions/2022/10/07/executive-order-on-enhancing-safeguards-for-united-states-signals-intelligence-activities/>
- 12 White House. A Declaration on the Future of the Internet. https://www.whitehouse.gov/wp-content/uploads/2022/04/Declaration-for-the-Future-for-the-Internet_Launch-Event-Signing-Version_FINAL.pdf
- 13 European Commission. “High-Level Multi-stakeholder Event.” (Nov 2, 2022). <https://digital-strategy.ec.europa.eu/en/events/high-level-multi-stakeholder-event-future-internet>
- 14 European Commission. TTC Joint Roadmap on Trustworthy AI and Risk Management. (Dec 1, 2022). <https://digital-strategy.ec.europa.eu/en/library/ttc-joint-roadmap-trustworthy-ai-and-risk-management>
- 15 *Ibid.*

- 16 White House. "Remarks by National Security Advisor Jake Sullivan at the Special Competitive Studies Project Global Emerging Technologies Summit." (Sept 16, 2022).
<https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/09/16/remarks-by-national-security-advisor-jake-sullivan-at-the-special-competitive-studies-project-global-emerging-technologies-summit/>
- 17 75% of global semiconductor production takes place in East Asia, with the global share of U.S. has dropped to 12% and European production has dropped to 9%. In: Semiconductor Industry Association. "State of the U.S. Semiconductor Industry." (2021).
<https://www.semiconductors.org/wp-content/uploads/2021/09/2021-SIA-State-of-the-Industry-Report.pdf>
- 18 White House. "U.S.-EU Trade and Technology Council Inaugural Joint Statement." (Sept 29, 2021).
<https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/29/u-s-eu-trade-and-technology-council-inaugural-joint-statement/>
- 19 „We previously maintained a ‘sliding scale’ approach that said we need to stay only a couple of generations ahead,” Sullivan said. “That is not the strategic environment we are in today. Given the foundational nature of certain technologies, such as advanced logic and memory chips, we must maintain as large of a lead as possible.” Sullivan. (Sept 16, 2022).
- 20 International Energy Agency. „Trends in Electric Light-Duty Vehicles.” In: Global EV Outlook 2022. (2022).
<https://www.iea.org/reports/global-ev-outlook-2022/trends-in-electric-light-duty-vehicles>
- 21 The IRA provides a \$7,500 tax credit for EV purchases (expires in 2032). Half of this credit (\$3,750) is conditioned on 50% battery final assembly in North America at the end of 2023. This final assembly requirement will ramp up to 100% as of 2029. The other half (\$3,750) is tied to “critical materials.” As of 2023, 40% of critical materials must be extracted, processed, or recycled in the US or an FTA country with an elimination of all foreign entities of concern—aimed highly at China and Russia—by 2025. Plug In America. “IRA EV Incentives, Explained.” (Jan 1, 2023).
<https://pluginamerica.org/why-go-plug-in/state-federal-incentives/inflation-reduction-act-ira-ev-incentives-explained/>
- 22 Kafsack, Hendrick and Werner Mussler, “Helfen Subventionen gegen die USA?” in: Frankfurter Allgemeine Zeitung. (Dec 15, 2022). <https://www.faz.net/aktuell/wirtschaft/eu-gipfeltreffen-helfen-subventionen-gegen-die-usa-18537372.html>
- 23 Internal memo
- 24 Chu, Amanda, Derek Brower and Aime Williams. “US touts Biden green subsidies to lure clean tech from Europe.” In: Financial Times. (Jan 24, 2023). <https://www.ft.com/content/ca95d8e4-79f4-44bb-9d74-df86809de098>
- 25 U.S. Trade Representative. “Readout of the US-EU Trade and Technology Council Co-Chair Call.” (Oct 24, 2022.) <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2022/october/readout-us-eu-trade-and-technology-council-co-chairs-call>
- 26 This mid-term time arc should focus on areas like quantum computing, the application of platform regulation in AR/VR spaces, greater global governance of non-PII industrial data, and low earth orbit satellite governance as a function of its environmental (space debris), competition (Amazon Kuiper, Starlink), democracy (connectivity in authoritarian/conflict zones) & industrial policy (IRIS2) impacts.