**THE IMPACT OF TECHNOLOGICAL DEVELOPMENTS ON FOREIGN POLICY POSITION PAPER FOR THE DUTCH PARLIAMENT**

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Questions over access and control over platforms, cloud, Internet infrastructure, AI, quantum technology and IoT are becoming central elements of economic, strategic and democratic power and vulnerability. China’s rise in technological leadership has been coupled with efforts to export its techno-authoritarian model globally. In response, the United States has aggressively confronted in multiple domains, increasingly leveraging global dependence on American tech as geo-economic instrument - at times exposing vulnerabilities in Europe.

The Covid crisis has fueled Europe’s technology dependencies on external actors in four interrelated ways. First, Chinese growth during the Covid crisis has [amplified](https://www.ft.com/content/0387a039-944f-4de5-8d41-7e22b7600563) European – particularly German – dependencies on the Chinese market as the basis for IoT and Industry 4.0 exports. Second, a Covid-fueled [supercharge](https://www.nytimes.com/2020/03/23/technology/coronavirus-facebook-amazon-youtube.html) in tech adoption throughout Europe has intensified reliance on US platforms and cloud providers. Third, the Covid shock has revealed brittle tech [supply chains](https://www.reuters.com/article/us-volkswagen-chips-idUSKBN29T09I) with bottle necks from semiconductors to vaccines. Fourth, the crisis has opened up new vulnerabilities for state-backed active measures, coordinated inauthentic content, cyber IP [theft](https://www.nytimes.com/2020/07/16/us/politics/vaccine-hacking-russia.html) and cyber-spying like the Russian SolarWinds with new IT-based threat vectors impacting European democracy, prosperity and potential for physical harm.

Against this backdrop, a new geotech landscape is coming into high relief – one that the NATO 2030 Report recently [dubbed](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf) “strategic simultaneity” in which multiple interconnected challenges are confronting democracies at once. The changing geopolitical dynamic around technology is Europe to reassess its digital technology posture beyond strictly market terms. In examining the rising implications of technological developments on foreign policy and questions of strategic simultaneity, it is useful to take four brief snapshots of key actors before examining possible lines of action for Dutch and European foreign policy.

**The European Union**

In 2021, Europe’s quest for digital sovereignty remains grounded in three interlocking domains – tech regulation, market access and industrial policy. Taken together, they demonstrate Europe’s true geopolitical urgency of establishing access, control and resilience in key strategic technologies embedded in a broader network of democratic states. First, Europe’s [effort](https://foreignpolicy.com/2021/01/19/2021-is-the-year-the-internet-gets-rewritten/) through the DSA, DMA, DGA, AI, digital taxation, Data Act and Gaia-X represent an ambitious attempt—perhaps its last – to set new rules for the digital world. At the same time, Europe is reaching for market access instruments give it more throw weight in shaping its technological environment. EU member-states are sharpening investment screening and export control mechanisms with greater focus on strategic and general-purpose technology. Some states are reviewing academic research cooperation and exchanges, particularly with China.

Finally, Europe is entering a new industrial policy era with European Commission President Von der Leyen stating that the EU “…must have mastery and ownership of key technologies in Europe.” The EU has [pledged](https://www.consilium.europa.eu/en/policies/eu-recovery-plan/) 20% of it €750 billion Next Generation EU to digitalization and technology investments. Coalitions are making greater use of the Important Projects of Common European Interest (IPCEI) tool to allow for state aid to strategic tech industries like semiconductors and batteries. Other European coalitions are emerging in the [Cloud](https://ec.europa.eu/digital-single-market/en/news/towards-next-generation-cloud-europe), with the European Alliance on Industrial Data and the Cloud and the Gaia-X protocol; and in space, with projects from the [Ariane 6](https://www.euractiv.com/section/outer-space/news/france-and-germany-launch-space-race-alliance/) rocket launcher to Galileo, among other techno-industrial projects. There is even consideration to press for greater European control over [undersea cables](https://www.politico.eu/article/submarine-cables-europe-lisbon-eyes-undersea-investment-bolster-tech-infrastructure/) with a new “European Data-Gateway Platforms Strategy”. Generally, Europe’s tech agenda is ambitious and heavily informed by the geopolitical circumstances. Questions remain, however, as to how the EU can translate its objectives into effective action and to what extent it will enlist like-minded democracies in its efforts.

**China**

Once satisfied to “hide and bide” while enjoying what Henry Kissinger called “the patient accumulation of relative advantage,” China has become a more aggressive global tech actor, bolstered by 2020 fourth quarter 6.5% [growth](https://edition.cnn.com/2021/01/17/economy/china-gdp-2020-intl-hnk/index.html) and a globally competitive innovation industrial base in 5G equipment, platforms, artificial intelligence, fintech and quantum research. China’s technological rise has accelerated the outwardly-focused phase of its industrial policy outlined, in part, in the 2015 “Made in China 2025”, 2017 AI Development Plan and China Standards 2035. China’s “autonomous and controllable” ambition is evident as its tech market remains closed, industrial espionage remains a key component of its tech industrial policy and the rate of adoption of international standards has slowed markedly. At the same time, China has instrumentalized key technologies to [enforce](https://www.atlanticcouncil.org/blogs/geotech-cues/the-west-china-and-ai-surveillance/) its authoritarian governance model through industrial grade AI-surveillance, suppression and control at home in Xinjiang and Hong Kong.

In Europe, China continues to accumulate market power. TikTok was 2020’s most [downloaded](https://www.businessofapps.com/news/tiktok-was-the-most-downloaded-app-of-2020/) app with more than 100 [million](https://www.futurebiz.de/artikel/tiktok-statistiken-2019/) active users in Europe. Huawei and Xiaomi [account](https://gs.statcounter.com/vendor-market-share/mobile/europe) for 25% of European smartphones. In the gaming industry – the hidden incubator for key strategic technologies like AI and augmented reality/virtual reality (AR/VR) – Tencent has [gobbled](https://asia.nikkei.com/Business/China-tech/Tencent-uses-game-business-to-expand-global-empire) up Europe’s champions like the Finnish SuperCell in 2019 and the Czech Bohemia Interactive in 2020. On 5G, China [pressed](https://www.hudson.org/research/16638-europe-s-china-chimera) states – Italy, Greece, Hungary and Serbia – to accelerate usage of Huawei 5G equipment; intimidated Sweden’s Ericsson; and attempted to bully the Netherlands on its 2020 spectrum auction. At the same time, China continues to mirror Europe’s digital regulatory discourse – on market power of tech giants and data protection – in an effort to mollify international narratives of conflict, all while consolidating the absolutist power of the Communist state at home. China’s 2021 Blocking Statute – which invalidates extraterritorial sanctions in China – was [explicitly](https://www.gibsondunn.com/chinas-blocking-statute-new-chinese-rules-to-counter-the-application-of-extraterritorial-foreign-laws/) modeled after the EU law.

Globally, China’s Digital Silk Road is offering cheap IT equipment and services to countries from Uganda to Equador with lock-in effects on telco infrastructure, data terms of use, payment services, technical standards and even future IP protocols. This form of techno-Mercantilism could undermine open, multi-stakeholder standard setting practices like at the International Standards Organization (ISO) important for keeping global tech open and competitive, particularly in the global South.

**The United States**

The Biden Administration has reset the US as a global tech actor, declaring multilateralism and cooperation with like-minded states at the heart of the US approach to digital governance. Since entering office, the new administration has [elevated](https://www.sciencemag.org/news/2021/01/biden-appoints-geneticist-eric-lander-science-advisor) the Science & Tech Advisor role to a cabinet-level position, moved quickly to appoint a new Privacy Shield negotiator, and has shifted new emphasis on democratizing technology (spectrum coverage, non-discrimination) and sustainability through Green Tech.

Many Trump-era holdover-elements remain. The US continues to use all the instruments of technological and geo-economic power to check China’s aspirations to export authoritarian technology. The US position on trustworthy 5G equipment, maintenance of Trump-era Entity List restrictions on semiconductors, social media, payment systems and handsets. The 2021 US National Defense Authorization Act ([NDAA](https://www.fdd.org/analysis/2020/12/11/taking-on-china-breaking-down-the-fy21-ndaa/)) extended the list of Chinese companies with military ties (the so-called Pentagon List), highlighted the civilian-military fusion as an element of China’s modernization and restricted Chinese exchange and cooperation with American university research networks. These efforts enjoy broad bipartisan—and popular – support.

American strategic tech policy is driven by a sense of national mission, linked to national security and seen through the lens of the US-China great power conflict. Following on the October 2020 National Critical and Emerging Technology [Strategy](https://www.nextgov.com/emerging-tech/2020/10/white-house-strategy-names-20-emerging-technologies-crucial-national-security/169293/), the United States is eyeing an increase in public spending through both defense and civilian channels to maintain its leadership in key emerging technologies. During the campaign, Biden [pledged](https://joebiden.com/made-in-america/) $300 billion for new technologies including AI, 5/6G and electric vehicles. On February 23, President Biden is expected to outline elements of the American tech industrial strategy in his Build Back Better Recovery plan before a joint session of Congress. Already following the SolarWinds Orion incident, the Biden administration included $9 billion for IT infrastructure security and capacity in the $1.9 trillion Covid stimulus.

At the same time, the January 6 Capitol Insurrection focused the American mind on tech reform with possible geopolitical implications. Already the Biden Administration shows signs of convergence with Europe on key areas of tech regulation – data protection, antitrust, content moderation, artificial intelligence and perhaps taxation – that could serve as the basis for cooperation. Congress is also considering Federal Data Protection standards – building on California efforts; states, the Justice Department and other authorities take action on antitrust grounds; and momentum to reform that parallels to European discussions about speech, liability and content moderation on platforms.

**Germany**

As Germany enters its first post-Merkel election cycle since 2005, Berlin’s strategic thinking on technology is evolving significantly. Once focused on a digital policy centered around data rules, competition and open markets, Germany has shifted to a more industrial policy-centered notion of “digital sovereignty” underscored by a sense of external dependencies on critical technology choke points. Germany’s July 2020 Covid economic recovery package (*Zukunftspaket)* [includes](https://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Schlaglichter/Konjunkturpaket/2020-06-03-eckpunktepapier.pdf?__blob=publicationFile) ambitious industrial research plans on quantum computing (€2B), AI (€5B) and 5G (€2B) -- often matched by *Länder*-level funds almost equal to that at the federal level.

Its efforts to define digital sovereignty remain, however, largely framed in transatlantic terms. Germany’s January 2021 Data Strategy focused heavily on Gaia-X as a means of emancipating Europe from US cloud services (the CLOUD Act). The German discussion around data localization, platform dependence and encryption continue to be inflected by the NSA revelations (2013), Trump (2016) and Cambridge Analytica (2017). Germany is aware of the tech challenges posed by China as well. Still, market co-dependence on China has forced Germany to balance. Berlin’s draft IT-Security Law 2.0 effectively delays an ultimate decision on Huawei equipment use until the post-Merkel era and, while it [requires](https://gadgets.ndtv.com/telecom/news/huawei-germany-it-security-law-draft-potential-setback-5g-mobile-network-rollout-2339815) a “declaration of trustworthiness,” it limits the number of political veto points to one, namely the Chancellor’s office. The German EU presidency was capstoned by the [push](https://trade.ec.europa.eu/doclib/press/index.cfm?id=2115) for the Comprehensive Investment Agreement (CAI), partially driven by investment access in Chinese data centers key to connected car ecosystems. Germany’s shifting political paradigm on digital sovereignty will have ramifications for Europe’s technology trajectory and the future success of democratic technology.

**Recommendations**

The Netherlands, Europe and like-minded actors should use this moment to create new situations of strength that can advance a more democratic tech landscape in coming years.

First, the EU and its member-states need an integrated assessment of capacities and objectives akin to a Digital Grand Strategy. Too often, digital policy is relegated to secondary issues in foreign affairs, left to policy specialists. This ignores the fact that tech policy is an enabling policy, affecting security, human rights, geo-economics and international development. This strategy should bridge the EU – and member-state – incumbent industrial strengths and its digital governance objectives with its global lines of effort. Such a strategy would focus the minds of the Europe’s far flung representatives across ministries and institutions on common goals and approaches. It should be complimented with a network of designated tech officers within embassies and include the full establishment of European Tech Ambassadors.

Second, Europe should push the proposed EU-US Trade and Tech Council as the geopolitical core of a democratic tech alliance**.** The Commission proposed a Trade and Tech Council in November following the US election, a point Von der Leyen underscored at Davos. The transatlantic partners should take advantage of convergences to set common principles around data governance, content moderation, platform market power, AI and Green technology. Beyond that, the US, Europe and like-minded powers need to consider new modes of information-sharing and coordination market access mechanisms in investment screening, export controls, academic cooperation and IP usage.

These efforts should start with a Transatlantic Data Flows Post-[Privacy Shield](https://dgap.org/en/research/publications/breaking-transatlantic-data-trilemma).Time is running out to reach a durable solution on transatlantic data flows. The Irish are expected to strike down the last post- EU-US Privacy Shield data transfer this Summer. Conversations around data protection have traditionally been asymmetric, with European data rights community on one side and the US IC and Big Tech on the other. A durable solution must involve a more balanced conversation -- with the negotiators, intelligence community, business and privacy rights from all sides. We must also find a solution that anchors the UK in the transatlantic data space and start to address data flows with other democracies, particularly India.

Finally, Europe should set the democratic tech governance at the heart of international groupings. NATO’s February Defense Ministerial will outline a new emerging disruptive technology (EDT) strategy and NATO-EU institutional cooperation on technology is growing. The British G7 presidency will feature the launch a Future Tech Forum. The OECD Global Partnership on AI, D10 and other informal coalitions are finding ways to socialize democratic principles for emerging tech. Europe should encourage this and look at new opportunities, including the Biden administration Summit of Democracies, to consider a charter of digital rights – centered around privacy, non-discrimination, transparency, human dignity and accountability.