



Forging Germany's Digital Grand Strategy

It's Now or Never

By Tyson Barker

As Germany's parties begin post-election negotiations that will bring new leadership to Berlin after the 16-year chancellorship of Angela Merkel, the new coalition must reconceptualize tech policy for the post-Merkel era. Ultimately, Germany's efforts to position itself internationally will only be successful if it is able to develop a confident, high-performing digital economy embedded in an open, democratic, and rules-based digital order.

While Germany once aimed primarily to create digital policy centered around data rules, competition, and open markets, its focus has now shifted to a hybrid notion of “digital sovereignty” centered on both regulatory and industrial policy. This shift is underscored by a sense that non-European actors – namely, US Big Tech and the Chinese state – can set rules that do not align with German and EU values and interests, as well as an increased awareness of external dependencies on critical technology choke points.

DETERMINING FACTORS Attempting to Respond to Technological Crisis

Germany's technology industrial base – long the foundation of its global power – has come under strain in recent years. The German government has confronted this development with

a new push to retrofit the country's economy through greater tech industrial policy. It created several programs that aim to establish leadership in critical emerging technologies, including [AI Made in Germany](#) (2018), [High-Tech Strategy 2025](#) (2018), and [National Industrial Strategy 2030](#) (2019). In 2020, Germany established the “package for the future” (*Zukunftspaket*), a pillar of its economic stimulus package to spur recovery from the COVID-19 pandemic. It also has ambitious emerging technology research plans on quantum computing (€2 billion), AI (€5 billion), and 5G network equipment (€2 billion). These federal programs are complemented by multilayer initiatives from Germany's *Länder* – its federal states – and the European Union, including Important Projects of Common European Interest (IPCEIs) in areas such as microelectronics, cloud computing, hydrogen power, and batteries.

And yet, Germany's recent experience with strategic tech industrial policy during Merkel's fourth and last term has been mixed at best. Three related bodies that were created during this term – the [Federal Agency for Disruptive Innovation](#) (SPRIN-D), [Agency for Innovation in Cybersecurity](#) (Cyberagentur), and [Central Office for Information Technology in the Security Sector](#) (ZITiS) – have all been plagued by bureaucratic red tape, political squabbling over their roles, budgetary constraints, and difficulties in attracting top talent.

At the same time, Germany is part of an ambitious EU effort to recast digital regulation rooted in fundamental rights, the rule of law, and democracy with new proposals on data governance, cloud computing, artificial intelligence, content moderation of hate speech and disinformation, cybersecurity, and market power. On its

and through German federalism. This [hinders](#) tech innovation and adoption, thereby weakening Germany's international tech position.

Germany needs to position itself internationally with a confident, high-performing digital economy embedded in an open, democratic, and rules-based digital order. This need is particularly acute as the geo-tech space moves more clearly from competition to conflict. Since 2017, China has pioneered a relentless technological industrial policy that is powered by an authoritarian ethos that ties domestic technological control and government surveillance with market protection, forced tech transfers, cyber espionage, and brutal subsidies. Most recently, China's regulations on personal data protection, competition, algorithms, and blocking statutes have attempted to mirror the letter of European law. But the spirit of these efforts is to conscript Chinese Big Tech into the service of the Chinese Communist Party.

Even as the Biden administration and Europe converge on questions around data protection, platform regulation, and taxation, other developments have driven a justifiable impulse in Germany to hedge its bets on transatlantic tech cooperation. These include a lingering hangover from the Trump administration, the messy withdrawal from Afghanistan, Franco-American tensions around the AUKUS pact, deep reservations about the way US Big Tech manages data, the general deterioration of American democracy, and the willingness of the United States to use technological chokeholds to coerce countries to bend to its geopolitical objectives. For Germany, equidistance is not an option. But as Germany stands with like-minded states, first and foremost the United States, it must also build in tech industry stabilizers that protect it – and Europe – from vulnerabilities caused by an increasingly tense tech competition in which Europe aims to play a leading role.

RECOMMENDATIONS

Building Germany's Embedded Tech Leadership

Germany needs an integrated approach to its digital capacities and objectives in a sort of “tech policy stack” – akin to a Digital Grand Strategy. Such an approach would bridge Germany's incumbent tech industrial strengths and digital governance objectives with its global lines of effort in a way that advances German values such as human dignity, informational self-determination, fundamental rights, privacy, competition, openness, climate justice, rule of law, transparency, and a level playing field. It requires an [inter-ministerial effort](#) that focuses the minds of Germany's far flung tech advocates across the Bundestag, ministries, and institutions – as well as its allies and partners in Europe and elsewhere – on common goals and approaches.

The next German government must define what kind of global tech order Germany wants. It needs to keep in mind that, at its core, [digital sovereignty](#) must be built on six interlocking democratic principles around “freedom to choose”:

- Promoting open competition of ideas and technologies
- Establishing clear rules of the game that bring democratic, human-centric order to both digital regulation at home and the international tech system
- Restoring informational self-determination to users
- Limiting carbon emissions and guaranteeing technological sustainability
- Avoiding lock-in effects, diversifying suppliers, and building in strategic interdependencies with like-minded states
- Being willing to impose consequences with teeth – proportionate sanctions, investment restrictions, tech access loss, and trustworthy vendor screening – when these principles are violated by authoritarian states

Based on the above, the next German government should:

Create greater agility in German digital federalism. To build scalable tech on a European and, ultimately, international level, Germany must first strengthen the interoperability between its federal government and its states (*Bund* and *Länder*) as well as among its states. That makes such domestic strengthening a foreign policy issue. Germany could, for example, create an “app store” for state- and community-recognized digital tools related to government certified education, healthcare, and policing.

Launch the Federal Digital Minister position – or ministry – that, from its outset, is “international by design.” Together, Germany's Federal Ministry for Economic Affairs and Energy (BMWi), its Federal Foreign Office, and its new Digital Ministry need to draft a strategy to draw a through line in Germany's digital policy. It must link domestic and European questions around tech industrial policy and regulation to foreign policy questions around techno-authoritarianism, the diplomacy of technical standard-setting, internet governance, and the role of tech alliances.

Contextualize tech industrial policy more deeply in geopolitics – and in Europe. The Recovery and Resilience Facility has made clear that the EU has a technological choice: “hang together or hang separately.” Germany's tech industrial policy should work to build consortia throughout Europe and other allied states such as the United States, United Kingdom, Japan, and Australia. Moreover, the next government must become an enabling environment for Germany's emerging tech research hubs. Their mandates should include the promotion of open source technology as both a condition for public funding and a core principle of German tech foreign policy.

Expand its tech access toolbox. Dual use export controls and updated investment screening regimes must be matched by the following: First, capacity across government to manage potential caseloads; second, greater information sharing across the EU and NATO; and third, new thinking about the openness of German and European markets to trustworthy vendors beyond mobile network equipment to include digital services, AI-powered biometric scanning equipment, data centers, data flows, and perhaps even smartphones.

Make tech policy a central focus of the 2022 German G7 Presidency. Germany should further develop the formats of the UK G7's [Digital and Technology Track](#) and [Future Tech Forum](#), creating G7 principles in information and communications technology (ICT). These could be built upon to help governments streamline messaging on China's Belt and Road Initiative, trustworthy vendors, market access, and data governance in the global South; promote open source technology as a means of tech empowerment, innovation, and global social cohesion; and lift the notion of global digital rights into trade and development discourse.

Create a cross-committee "Tech Foreign Policy Working Group" in the Bundestag. This interdisciplinary working group should create consistent lines of effort in areas from federalism to the role of democratic tech alliances. Consisting of key cross-party members of the Digital, Foreign Affairs, Economic, Finance, and Defense Committees, it could help hammer out consistency across portfolios that are, by their nature, cross-cutting.

Engage collaboratively in EU-US tech dialogues. Like other EU member states, Germany must actively participate in the EU-US [Trade and Technology Council](#) (TTC). This is even more urgent given France's initial pressure to postpone the inau-

gural TTC meeting due to the AUKUS agreement. It also applies to EU-US negotiations toward a Privacy Shield 2.0. Various corners of Germany's government are affected by these negotiations, including its interior ministry and intelligence community. Germany has a national security stake in maintaining a relationship with US intelligence and national security that is consistent with European law. The Futures Forum conceived as part of the July 2021 [Washington Declaration](#) could be a vehicle for deeper engagement.

Address political trade-offs associated with digital policy choices. At times, European regulatory leadership can have politically inconvenient second and third order effects on economic competitiveness, human rights, and the geopolitical environment. For example, in an international context, Germany's policies can become the basis of policy "mirroring" and weaponization by authoritarian states like China and Russia. Germany should push for clear-eyed assessments of the impact of European tech policy beyond Europe's borders on both European competitiveness and global tech-fueled oppression.

Reengage in internet governance and standardization. The new government should create incentives for German companies, start-ups, and associations to participate in standard setting bodies, seek chairmanships, field draft standards, and work with like-minded states. This could include grants from the BMWI/Digital Ministry to industry to build standard setting expertise and field representation.

In this memo series, DGAP offers concise analysis of issues related to foreign and security policy that will shape the agenda of Germany's next legislative period. Each memo provides insight on how the new federal government and parliament can take advantage of opportunities and meet challenges as European and global dynamics grow increasingly complex. Topics include technology, climate, migration, the international order, security, and geo-economics.

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