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FROM DIGITAL PROTECTIONISM TO DIGITAL ALLIANCES

 an opportunity for Sweden as chair of the Council of the EU

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SUMMARY

- The EU risks edging toward digital protectionism by means that, according to most studies, could undermine economic growth and security in Europe.
- Digital protectionism jeopardizes Europe's advantage in mainstream industries that rely on edge computing without increasing competition in large-scale digital platforms.
- The EU and America share a legitimate need to secure supply chains and strive for technological leadership.
 These aims are weakened by indiscriminate trade impediments but could be strengthened by carefully crafted alliances.
- ★ As chair of the Council of the EU during the first half of 2023, Sweden should: (a) propagate an evidence-based approach to the EU's digital agenda; (b) revitalize highlevel discussion fora such as the US-European Trade and Technology Council (TTC); and (c) initiate talks on operative cooperation on cyber security, common research, and common trade stances toward countries such as China.
- ★ A more ambitious, operative Atlantic initiative would be the negotiation of a "EUKUS", a defense-oriented research alliance between the EU, the US and the UK. A little-noted second "pillar" of AUKUS, the defense deal between Australia, the US and the UK, entails collaboration on advanced technologies, such as artificial intelligence, quantum systems, and hypersonic missiles. This second pillar could be a blueprint for an Atlantic "EUKUS".

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1. INTRODUCTION

Many countries, including those in the EU and the Americas, are edging towards the slippery slope of protectionism, aiming to bolster their digital and other strategic industries. The concerns that precipitate this development are real enough. During the past decade, non-democratic countries have grown to produce half the world's GDP. Russia is at war with a democratic country and China is threatening to invade another. The democratic world has undoubtedly become too dependent on technology and materials from high-risk sources. In addition, there are concerns around digital vulnerability, data integrity, jobs, and tax revenues.

This brief scrutinizes the consequences of the various initiatives to secure digital strategic autonomy. These are often propagated without analysis of the trade-offs involved. Research suggests that many of the initiatives launched to achieve one strategic aim are likely to weaken the ability to achieve other strategic goals. Often, there are better alternatives that promote digital alliances. A transatlantic digital alliance would be a crucial foundation for the geostrategic security of all democratic countries. Some principles relevant to Sweden's chair of the Council of the EU are offered in conclusion.

2. THE NEW PROTECTIONISM

The western world's new protectionism has numerous motivations. America needs its own industrial policies to avoid becoming reliant on a rival in the technologies of tomorrow. Politicians' concerns about disruption to supply chains early in the Covid-19 pandemic strengthened this view, as did a desire to boost middle-class jobs. There is a risk that subsidies to slow climate change dissipate to offshore production. Concerns about digital security, integrity and tax leakage have further precipitated initiatives that stifle globalization.

America's longstanding commitment to free trade cracked when Donald Trump levied tariffs on products from around the world. The US government is poised to shower \$465bn on chips and climate technology as part of the Inflation Reduction Act (IRA). In response, European politicians and businesses desire strict state-aid rules to be adjusted, so that governments can support industry to match subsidies in other countries. In 2022, the EU launched its own Chips Act, an initiative designed to strengthen strategic autonomy for semi-conductors. The Act also sets its sights on the current dominance of American companies in the cloud services sector and aims to double the EU's share of global advanced chip manufacturing from 10 to 20 per cent by 2030; rising from about 4 per cent by providing access to \$30bn in state aid and direct EU funding. The EU recently announced its Green Deal Industrial Plan aiming at a more predictable and simplified regulatory environment for green investments (Net Zero Industry Act) and critical raw materials (Critical Raw Materials Act) as well as faster access to funding, including relaxed state aid rules.¹

A "Europe fit for the digital age" is a top EU priority.² Under the European Commission's digital policy roadmap, "Shaping Europe's digital future", the EU aims to strengthen its economy and improve the region's digital competitiveness vis-à-vis the US and China. As part of its strategy, the EU is pursuing regulatory, legislative, and legal efforts to achieve what some EU policymakers have termed "digital (or technological) sovereignty". The various EU initiatives are wideranging: covering policies from artificial intelligence (AI) to competition to data privacy. Among those underway or recently enacted are:

- The "Digital Markets Act (DMA)" that aims to establish competition rules for large online platforms designated as "gatekeepers".
- ★ The "Digital Services Act (DSA)" that seeks to modernize the 2000 E-Commerce Directive, which sets the legal framework for online services in the EU including liability rules related to illegal online content and products, providing transparency.
- ★ The enacted General Data Protection Regulation (GDPR), which took effect in 2018 and obligates certain conditions on how organizations process individuals' personal data, including cross-border data flows.
- ★ The proposed ePrivacy Regulation (still under debate), to impose requirements that ensure the privacy of electronic communications by both traditional telecommunications providers and messaging services.

¹ However, the funding is mostly repurposed from Cohesion funds and the Recovery and Resilience Facility. State-aid rules will also be relaxed: European Commission, 'A Green Deal Industrial Plan for the Net-Zero Age' (2023).

² European Commission, 'A Europe fit for the digital age', commission.europa.eu/strategyand-policy/priorities-2019-2024/europe-fit-digital-age_en

- ★ The "Data Governance Act" that seeks to regulate data and set the legal foundation for a single market for sharing industrial and nonpersonal data across the EU.
- ★ The AI Act, taking effect in 2024, aims to ensure "trustworthy AI" and a human-centric approach. Rules categorize certain AI applications as high-risk, requiring ex ante approval for market access, while non highrisk AI applications would be subject to a voluntary labeling scheme.

Estimates show that the contribution of data flows to global GDP is already bigger than the contribution of the flows of goods.³ Already in 2024, 85 per cent of the world's GDP growth is expected to come from outside the EU. A key question is therefore which of the new regulations actually strengthen the economy and geopolitical security, and which potentially weaken the democratic world as a whole. Ongoing efforts in many countries to address digital technology issues also create the potential for new digital alliances.

3. THE WEAKNESS OF DIGITAL ISOLATIONISM

The economic thinking that underpins much of the new protectionist logic is dubious. But some of the alarm may also be overblown and may spark even more harmful countermeasures. Such a vicious cycle was blamed for greatly prolonging the Great Depression in the 1930s, which is why the US led the effort to develop a new world trading system after 1945, setting the stage for the most successful period of global economic growth in history. For 70 years, global commerce was underpinned by the rule of law, with an international organization – the General Agreement on Tariffs and Trade, which was succeeded by the World Trade Organization – ensuring impartial adjudication of disputes.

Against this historical backdrop, the burden of proof should be on those who propose new protectionist measures in the name of digital or strategic autonomy. The aims of such initiatives are often cloaked in vague assertions or even hyperbole.

3 Manyika et al. (2016), 'Digital Globalization: The New Era of Global Flows'.

In order to structure evidence, it is useful to separate some specific aims that the EU's digital initiatives are meant to pursue:

- 1. Economic growth.
- 2. Supply of competence and strategic products.
- 3. Supply of security-relevant components and services.
- 4. Personal integrity.
- Technological leadership as needed to ensure geopolitical security for the democratic world.
- 6. Keeping other countries engaged in EU security.

Unfortunately, all initiatives towards strategic or digital autonomy listed in the previous section involve trade-offs among these six aims that are rarely analyzed in the political processes leading up to them. By one calculation, duplicating the world's existing stock of investments in semiconductors, clean energy and batteries in the name of autonomy would cost between 3.2 and 4.8 per cent of global GDP, seriously eroding economic growth.⁴

One example is the chips-policy enacted by the US and the EU. Manufacturing costs of chips are estimated to be about 50 percent higher in the US compared to Taiwan. Work will be duplicated rather than merely distributed differently. By one estimate, investment of between \$900bn and \$1.2trn would be required to create multiple self-sufficient semiconductor supply chains around the world.⁵ In the short-term, each individual policy may attract domestic and foreign investment, but in the long-term they will raise costs for consumers.

What exactly would this achieve? The complexity of semiconductor value chains should be sobering for aspirations of self-sufficiency. An extreme ultraviolet (EUV) lithographic machine has over 100,000 parts. A key success factor of the dominant EUV machine producer, ASML, is that it knows how to manage its 4,000 suppliers. The global ecosystem for semiconductor manufacturing is so extensive that full self-sufficiency is hardly a viable goal. One could argue, however, that in a crisis situation a lesser goal is achievable – namely to

⁴ The Economist, 12 Jan. 2013. This result is in line with other empirical research on the consequences of protectionism, e.g. Steininger et al. (2017), 'Economic implications of a protectionist US trade policy', *CEPR*.

⁵ Boston Consulting Group.

temporarily maintain current production with supply chains among allied or other countries that are not directly affected. For example, the US and Europe might aim to maintain some chips production if Taiwan were subjected to a blockade or even an invasion.

IRA may actually be good for Europe

Economists generally conclude that retaliation of other countries' protectionism in many cases makes the retaliating country worse off (unless it helps to secure a deal or mutual standdown). For example, a reasonable assessment of European interests would admit that the EU will pay greater state subsidies than the US even after IRA.⁶ For example, in battery production there are already new subsidy options and exemptions from EU state-aid rules. The fiscal expansion that the IRA and previous US spending programs have generated have also boosted demand for European products.⁷ Climate policy subsidies in the US also benefit Europe by helping to abate the pace of global warming. They also benefit European consumers by increasing the supply of hydrogen, rare minerals, chips, and other targeted inputs and thereby pressing global prices. Finally, European security improves as a result of less concentration of production of strategic inputs to China, Taiwan, or other countries.

There is an economic rationale for the EU to stay on the sidelines. When America pays for technologies at great cost to its taxpayers, these technologies should, in time, become cheaper for everyone. However, for as much America throws at its companies, it cannot have a comparative advantage in all products. All these effects combined imply that Europe may well end up better off as a result of IRA.

But Europe may end up worse off if its own efforts towards strategic autonomy turn out to be wrong-headed. For example, new relaxed state-aid rules might be taken up quite unevenly across EU countries. In 2022, 77 per cent of permitted state aid during the war in Ukraine was paid by France and Germany. Over time, such imbalances could erode support for free trade and movement at the core of the EU. It might also create an illusion that subsidies and protectionism are a substitute for the growth reforms that the EU sorely needs, such as more robust energy production, entrepreneurship policies, greater competition in service sectors, and greater efficiency in regulation, taxation and public spending.

⁶ Sagebro, 'The US Inflation Reduction Act pales in comparison to state Aid within the EU', Svenskt Näringsliv (no date).

⁷ For example, German export of goods to the US in 2022 grew almost twice as fast as overall goods exports did.

Data transfer restrictions can backfire

This underlines a key point. So called "strategic autonomy" may actually erode by measures that strictly try to enforce sourcing within a country or a trade bloc. That is the conclusion drawn by Estonia, which insists that its entire digital government be copied and accessible outside its borders – well aware that anything else would constitute a security threat in case of sabotage or an invasion.

One recent study by Digital Europe (2021) found that growth of the digital economy and the success of European companies are crucially dependent on the ability to transfer data across borders.⁸ An example is the truck manufacturer, Scania. When a Scania vehicle is driven, a small box sends diagnostic data – speed, fuel use, engine performance, even driving technique – to the company's headquarters in Sweden. The vehicles would not function effectively without transferring data, and neither would the repair of these vehicles. If a vehicle breaks down, data can be transferred to a regional or global help desk for tracking and solving the problem.

The study indicates that restrictions on companies' ability to transfer data of the kind that the EU Data Act might impose could incur losses of €2trn worth of growth by 2030. This is the same size as the Italian economy for any given year. The EU manufacturing sector stands to lose the most in absolute value. A majority (around 60 per cent) of the EU's export losses in the negative scenario would come from an increase in its own restrictions rather than from third countries' actions.

Given results such as these, the EU Data Act risks curtailing the fundamentals of European companies' data-driven business models.⁹ The proposal for the Data Act includes measures to allow users of connected devices to gain access to data generated by them, which is often exclusively harvested by manufacturers and to share such data with third parties. Further, there may be restrictions on the cross-border transfer of data.

In summary, the Data Act and other restrictions aim at providing opportunities for European firms and furthering competition. But the tradeoff is that overall growth and opportunities for European manufacturers to compete globally may deteriorate. Intriguingly, even the aim of giving individuals more control over their own data may produce contrary results. For example, a person who

⁸ DigitalEurope, 'Data flows and the Digital Decade', 17 Jun. 2021. Similar results are found in Ferracane et al. (2018a) and Ferracane et al. (2018c).

⁹ Confederation of Swedish Enterprise (2022) 'The Confederation of Swedish Enterprise's position on the Data Act Proposal', Svenskt Näringsliv, 13 May 2022.

requested the right to transfer her health data from a healthcare platform to a third party may then find that this third party cannot be held accountable for how the data is used or leaked.

The results of the study described above suggest two very different paths forward. On the one hand, the current trajectory of the EU and its partners: namely, a moderately restrictive scenario in which the EU restrains the usability of GDPR transfer mechanisms and introduces further conditions for transfers of non-personal data, and in which trade partners increase their overall levels of restrictions on cross-border data flows. On the other hand, a hopeful scenario where the EU and major trade partners adopt measures to facilitate cross-border data transfers. The difference between the two amounts to a cumulative difference of €2trn by 2030, or 1.5 per cent of the EU's GDP.¹⁰

These are just a few examples of digital protectionism that are likely to backfire. They also illustrate the dangers of striving toward autonomy in a political process that is not well founded on analysis and transparent scrutiny of the tradeoffs involved.

4. IS THERE A BETTER STRATEGY?

This section explores ways of achieving some degree of digital sovereignty that minimizes tradeoff costs and strengthens the democratic world.

Don't escalate digital trade wars

Conceivably, the threat of trade war can be channeled in a more benign direction. This is the view of Katherine Tai, the current US trade representative, a staunch believer in subsidies. She has called for America and its allies to co-ordinate their investments to maximize their clout. Theoretically, this is an idea with merit. America wants allies in Asia and Europe to join its harder line on China; its allies, meanwhile, want to continue under America's security umbrella and would like support in confronting climate change.

10 The study is based on an econometric study carried out by Frontier Economics based on OECD trading data. The study was commissioned by DigitalEurope. Goldfarb and Trefler (2018).

One could argue that the EU is also pursuing Tai's notion but in a different form. From October 2023, the Carbon Border Adjustment Mechanism (CBAM) will be in force. It will initially apply to imports of certain goods and selected precursors whose production is carbon intensive and at most significant risk of carbon leakage: cement, iron and steel, aluminum, fertilizers, electricity and hydrogen. With this enlarged scope, CBAM will eventually – when fully phased in – capture more than 50 per cent of the emissions in ETS (Emissions Trading System)-covered sectors. In addition, the Green Deal Industrial Plan channels subsidies toward areas affected by the IRA while at the same time imposing costs on imports from China.

America's allies have had some success in persuading the US to soften the consequences of the IRA. Practically, though, it is not easy to recraft the rules entirely. Legislation was written precisely, specifying amounts, timelines, and conditions. Congress would need to pass formal amendments – a tall order at the best of times and inconceivable when the House of Representatives is dysfunctional. Any adjustments are thus likely to be minor.

Channels of discussion with the US administration should be used to their full extent in order to achieve effective facilitation in the implementation of the IRA.

Focus on strategic partnerships

A positive transatlantic agenda is key in the digital sphere for a global open internet: the EU should focus on strategic partnerships rather than digital sovereignty. Several US government plans that emphasize working with partners and allies on key technologies also provide an opportunity for cooperation with the EU. For example, the congressionally authorized Cyberspace Solarium Commission recommended that the US build a coalition of partners who share common values.

Several initiatives could propose transatlantic digital principles that would find the right balance. The Trade and Technology Council could create common standards for climate-friendly products and technologies. Unequal standards are non-tariff barriers to trade.

A bilateral US-EU comprehensive Free Trade Agreement (FTA) could also provide a forum to agree on new digital rules. Previous attempts at such negotiations under the Obama and Trump administrations stalled due to differences on certain trade issues, not necessarily related to online technology. The parties could consider a narrower digital trade agreement similar to the 2019 US-Japan Digital Trade Agreement.¹¹ While the EU may not accept everything in the US template, the parties could build on the agreement's provisions to include new obligations, such as on competition, platform intermediaries, green tech, or emerging technologies, in an effort to set new global standards.

Apart from a new bilateral trade agreement, the US and EU could add their economic and political weight to existing agreements outside of the WTO that aim to shape new digital norms and standards. For example, the Digital Economy Partnership Agreement (DEPA), signed by Singapore, New Zealand and Chile, went into effect on January 7, 2021.¹² The agreement includes a series of modules covering measures that affect the digital economy, such as cross-border data flows and digital identities. DEPA is an open plurilateral agreement that allows other countries to join the agreements. Furthermore, it is a "living" agreement, allowing for the creation of new modules. For example, the parties explicitly included plans for deeper cooperation on emerging trends and technologies, such as AI and competition, providing an opportunity for the US and the EU to shape any obligations or new modules in these or other areas if they choose to join.

Complement rather than duplicate

A report by the Senate Committee on Foreign Relations proposed "a constructive and concrete transatlantic agenda to defend shared interests and values" to counter multiple challenges posed by China.¹³ With regard to technology, the report included four specific steps for the parties to: (1) prioritize areas where there are little to no regulatory obstacles for increased transatlantic cooperation on technology development (e.g. AI); (2) create a technology coalition of advanced democracies; (3) seek to harmonize regulatory practices in key areas (e.g. cybersecurity); and (4) take other steps to regain a competitive stance in the global technology race.

- 11 The full text of the US-Japan Digital Trade Agreement is available at: ustr.gov/countriesregions/japan- korea-apec/japan/us-japan-trade-agreement-negotiations/us-japandigital-trade-agreement-text.
- 12 For more information on DEPA, see: mti.gov.sg/Improving-Trade/Digital-Economy-Agreements/The- Digital-Economy-Partnership-Agreement and mfat.govt.nz/en/trade/ free-trade-agreements/free-trade- agreements-in-force/digital-economy-partnershipagreement/
- 13 US Congress, Senate Committee on Foreign Relations, 'A Concrete Agenda for Transatlantic Cooperation on China', November 2020, S. Prt. 116-46.

A unique market opportunity for Europe in the next five years is industrial edge computing. To seize it, Europe can build on its industrial expertise and strength in some areas of the computing value chain, such as business-to-business application, system integration, industrial IoT systems, and 5G. Today, there is no dominant player in the industrial edge computing market and European players have strengths to leverage.

The point is that digital technology is so multifaceted that alliance partners can do much better by complementing each other's strengths rather than subsidizing competitors in exactly the same niche segments. This may also be the best way to build geopolitical strength.

Learn the lessons from the war in Ukraine

Security is not necessarily maximized by trying to contain all essential digital functions within one's own borders. The war in Ukraine illustrates this clearly. Russia has thrown vast amounts of malware at Ukraine. But Ukraine's banks and most other functions that rely on digital connections remain open.

Ukraine was prepared, having been a victim since 2014. Much of Ukraine's digital infrastructure migrated to servers abroad, beyond the reach of Russian bombs. Governments, cyber-agencies, and private firms like Microsoft helped, often using artificial intelligence to comb through huge volumes of code. The cyber-defense of Ukraine relies critically on a coalition of countries, companies, and NGOs.

The lesson from Ukraine is that building these alliances in advance is more important for security than trying to be autonomous, and not just for countries like Estonia or Ukraine that are most exposed.

Learn the lessons from past successes and failures

Examining past failures is important to build strategic autonomy. They include attempts at picking winner technologies, such as the French attempt to build its own internet, Minitel, which was soon surpassed by the open world wide web; or the EU's assent to French subsidies of Quaero worth €100m (dubbed Eurogoogle). Relatively speaking, Airbus may be considered a success and the reason is quite clear: without Airbus, Boeing would have held a monopoly in large airplanes. This is a rare situation, however, that does not apply to any of today's large digital platforms that compete intensely among themselves and with new entrants.

Also, previous growth strategies have had mixed results at best. The wordy EU Lisbon strategy was launched in 2000 but was soon considered vacuous. In successive rounds it has become more focused and given well-defined procedural rules. Nevertheless, economic growth in the EU has continued to trail behind the US. Arguably, the most successful EU-growth policy has been giving more countries access to a free-trade zone either through membership or other agreements.

5. A COURSE OF ACTION FOR SWEDEN

Sweden holds the chair of the Council of the EU during the first half of 2023. This opportunity should be used to introduce an evidence-based approach into the EU's digital agenda and the wider quest for strategic autonomy, competitiveness, and geopolitical security.

First, do no harm

Sweden should therefore propagate a more transparent and independent review process of proposals. Reviewers should spell out the tradeoffs involved, analyzing both the advantages of each proposal and to what extent it erodes attainment of other goals. They should consider thoroughly the costs they may impose on businesses, both in terms of administrative burden and conformity tests and audits. For instance, the proposal for the AI Act, if adopted, could be challenging for most companies.¹⁴

They should also point out inconsistencies in the proposals.¹⁵ For example, the Digital Compass has set ambitious targets for 2030 but some of them, for example on digital skills, do not seem feasible. As another example, many of the proposed acts increase the administrative burden on SMEs, while the SME strategy promises to reduce administrative burden. A third example is that the target to doubling the EU share in global production of semiconductors is probably both unrealistic and not strategically focused. The cloud computing

¹⁴ Digital Europe (2021b).

¹⁵ For example, the EU commission claims that "The European Green Deal is our new growth strategy", arguing that it will improve competitiveness and income growth, while other EU publications calculate that the sharper emission targets would lower GDP.

market is dominated by hyperscalers and is likely beyond Europe's reach to reverse the situation.

In promoting this way of reviewing proposals, Sweden should aim to lead by example. The Swedish National audit office has just recently described in detail how large Swedish reforms are launched without analysis.¹⁶

Explore all venues for cooperation

In December 2020, the European Commission and the EU's High Representative for Foreign Affairs and Security Policy issued "A New EU-US Agenda for Global Change". The proposal includes multiple interdisciplinary issues including climate and public health. The proposed "joint EU-US tech agenda" includes creating a "transatlantic technology space [that] could form the backbone of a wider coalition of like-minded democracies with a shared vision on tech governance". The EU document specifically points to cooperation on AI, free data flow with trust, online platforms, competition, taxation in the digital economy, and standards.

Sweden should engage to revitalize three initiatives:

First, the US-European Trade and Technology Council (TTC) is a promising step that should be given greater weight. Built around ten working groups, the TTC aims to achieve "sustainable, inclusive economic growth and development" through more coordinated export restrictions while seeking to build capacity in artificial intelligence and computing research. The TTC is focused on accelerating its partners through collaborative research projects. Moreover, the TTC seeks to develop mechanisms to avoid the risk of transatlantic subsidy conflicts.

Second, further working groups should be given added momentum such as the ITRE Committee and relevant European Commission's services, including the European External Action Services (EEAS), and the Service for Foreign Policy Instruments (FPI), as well as DG INTPA, DG NEAR, and DG Connect, to develop a joint Action Plan on Digital Diplomacy. The international dimension of digital policy, regulations, and investments is assuming a key role both to export the European model and to pragmatically cultivate those alliances needed for the gaps and dependencies that Europe cannot cover alone, but that jointly can be addressed successfully, to make the world a better place for the future generations in Europe and across the globe.

16 Riksrevisionen (2022). 'På skakig grund – beslutsunderlag inför stora reformer' (2022).

Third, Sweden can do more to reinvigorate the D9+ coalition.¹⁷ D9+ is a ministerial group of digitally advanced EU countries that aims to promote the implementation and use of digitalization and the sharing of its best practices. The group includes the Netherlands, Belgium, Spain, Ireland, Luxembourg, Portugal, Poland, Sweden, Finland, Denmark, Czech Republic and Estonia. Among issues addressed are Digital Innovation Hubs, supporting further innovation such as Advanced Manufacturing/Smart Industry, and funding from Next Generation EU, Cohesion Policy Funds, and Horizon Europe. Use procurement as a tool to grow our innovation ecosystem. Investment in R&D capacities can support this ecosystem.

Sweden should aim to ensure that cooperation of this type is extended and given a greater mandate. However, this should not be the only game in town. Many past attempts at transatlantic policy co-ordination – such as the New Transatlantic Agenda, the Transatlantic Economic Council and the Transatlantic Trade and Investment Agenda – achieved little.

Put meat on the bone

Trade and technology councils and digital diplomacy are fora for discussion, but the real prize would be to engage in common projects and achievements. An illustrative parallel of what can be achieved was the US-EU agreement on collaboration for accelerated and massive production of COVID-19 vaccines in 2020-21, where each party could not have succeeded without the other.

Sweden should engage in shifting focus in any European digital strategy to address the capacities and capabilities in the EU more than the origin of companies or algorithms, or the ownership of software or clouds. In areas such as industrial edge computing, which is an open market with no incumbents, Europe may play an important role and avoid dependencies on third countries. Europe should give priority to a strategic alliance between the US and Europe where countries complement each other's strengths in the digital dimension as well as regarding security policy.

17 On the need to professionalize the D9+ Group, see: La Moncloa, 'The European Commission announces an investment of EUR 38 million to improve connectivity and digital infrastructure in the Canary Islands' 16 Dec. 2022.

Such a slight shift in the framing of Europe's digital strategy would help Sweden to support operative initiatives such as:

- A very concrete and important measure should be an operative transatlantic cybersecurity initiative. This should build on the ad-hoc measures that have been in force to help Ukraine and build a common task force that quickly comes to the aid of beleaguered countries. Importantly, this is not only a way of helping European countries. Huge damage has also been inflicted on US public and private entities due to cyber-attacks.
- 2. The EU should facilitate transatlantic cross-licensing deals of intellectual property and generally promote common research agendas and internationally open standards and certification. For instance, both the security and energy consumption of semiconductors is of rapidly increasing importance. Cybersecurity and energy-efficiency certifications based on common recognized methods and standards can give necessary trust and confidence. This is essential for smooth international trade flows that increasingly depend on the IoT and, thereby, on semiconductors. Such common policy will reduce uncertainty as a barrier to innovation.
- 3. The different trade and investment agreements the EU and the US have with China should be followed up by a joint Atlantic Commission. The commission might supervise whether China is living up to the agreements and ensure that China faces consequences for its infringements on mutually agreed trade conditions. It can pave the way for how the EU and US can take new and joint steps in trade negotiations with China.
- 4. The EU-US dialogue should also prioritize the risks posed by China to digital supply chain resilience. The EU and US should not compete against each other to attract manufacturing investment. This would probably drive up costs for both, and would deliver excess capacity. Co-operation in complementing areas would produce greater mutual benefit. Washington and Brussels should work together to assist existing European and American semiconductor manufacturers to identify the riskiest chokepoints in their supply chains, and address those chokepoints in cases where the manufacturers cannot effectively do so themselves. The EU and US should use trade policy to promote access to new sources of rare earths in other parts of the world and fund joint research into greener ways to extract or recycle them, or finding alternatives.

5. Another steppingstone for cooperation is the Foreign Direct Product Rule (FDPR), which has become one of the most important weapons in America's arsenal for technological competition with China. In February 2022, two new FDPRs cut off Russia's military-industrial complex from all American elements of global technology supply chains, as part of a huge package of sanctions put in place by the US and its allies. Japan and the Netherlands, which host two of the most important chipmakingequipment manufacturers, reached a deal with the US in late January 2023. If both create strong controls of their own, China will be firmly barred from advanced semiconductors.

Such operative alliances that go beyond dialogue on digital issues could go a long way toward combining geopolitical security with better economic growth in the democratic world.

"EUKUS" after AUKUS

A very effective way to operatively enhance transatlantic cooperation and at the same time strengthen European and American technology innovation would be to emulate AUKUS and negotiate a "EUKUS" between the US, the UK, and either the EU or selected EU countries. AUKUS is mainly noted as a defense alliance in the Pacific including the US, the UK, and Australia, and additional deals with other Pacific countries. But a little noted second "pillar" entails collaboration on advanced technologies, such as artificial intelligence, quantum systems, and hypersonic missiles. This second pillar could be a blueprint for an Atlantic "EUKUS".

As Russia's aggression has made clear, stronger defense innovation capabilities should be high on the list of priorities. But Europe has also lagged in terms of "disruptive" innovation.

The EU has made several unsuccessful attempts to emulate the American Defense Advanced Research Projects Agency (DARPA). One such attempt, the European Institute of Innovation and Technology (EIT), has become just as bureaucratic and unfocused as many other EU-research programs. A more recent attempt, JEDI, is private and potentially more light-footed, but small and does not yet employ the instruments that DARPA uses – such as Grand Challenge prizes. Neither the ETI nor JEDI focus on defense needs.¹⁸

¹⁸ The Horizon program supports some dual-use, civilian-military research and the European Defense Fund has begun to finance research with military applications, including some disruptive technologies.

An Atlantic "EUKUS" agreement with a focus on disruptive technologies would help the EU to put an effective organization in place. Unleashing the EU's innovative potential in defense would also help and complement its strategic partners. Much of this type of innovation concerns digitalization, so it would also strengthen all partners' digital technology sectors, and deter digital protectionism.

Finally, be clear on what counts most

Finally, Sweden should spell out a clear narrative of what is most important if the European business sector is to be given a fair chance to compete globally. This includes less obstructive taxes, less bureaucracy and regulation in R&D and innovations, accelerated licensing for more sensible regulation of private investments, and a stable infrastructure of the digital economy that attracts capital.

EU-initiatives that end up undermining the owners' rights to develop and manage their companies, as the Commission is planning, would ensnarl European industries in a slow-growth trap.

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