

CAN TECHNOLOGY BOLSTER EUROPE'S TRANSATLANTIC WEAKNESS?

There is a need to revamp transatlantic relations and its logic in the contemporary multipolar, globalized, and technologically advancing world. NATO's deteriorating deterrence and capabilities are linked to Europe's weaknesses, originating from inharmonious national preferences, industrial and policy divisions within the block, and an absence of effective, sustainable, and modern approach to address the strategic capability shortfalls. This article critically reviews European defense integration efforts before building upon current warfare trends, mainly space and artificial intelligence. It argues the vitality and mutual utility of transatlantic relations that can be addressed by focusing on civilian and private sector-driven investments into cutting-edge technology research.

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Transatlantic Relations: NATO and the US

Behind the weakening of transatlantic relations lie several reasons, such as the fear of Washington's withdrawal from NATO, the overt critique of Europe's underspending on defense, the value rift over the Iran Nuclear Deal, the discord over the Paris agreement, the cancellation of the Intermediate-Range Nuclear Forces Treaty (INF), and the trade war threats to US-Russia relations under the Trump administration. Unfortunately, the debate about the transatlantic relationship in the last three years has been fairly consumed by Donald Trump's unconventional steps, rather than a substantial debate about NATO's real issues. However, it should be noted that the problems of transatlantic relations will remain, regardless of Trump winning the 2020 elections or not. While Trump might be currently shaking the Alliance with his "America First" approach, future White House administrations will be determining the fate of the Alliance.

The US's transatlantic approach has been arduously built to be a key component of its foreign policy over the last 75 years. It took two world wars before the traditional Jacksonian foreign policy moved the US away from isolationism. During the bipolar period of the Cold War, the US's logic was to keep the Soviet Union away from Western Europe while following a unipolar world order that solidified her own power status through a cohort of allies. Now, however, as the current multipolarity and emerging new global challenges determine the world's security environment, Washington needs to update the logic of its transatlantic policy.

As the Alliance's weak link, the future of NATO lays within Europe. The old continent needs to find a way to convince the US that the partnership is essential for American security and prosperity in the 21st century. The true reason behind Trump's hysterical assaults on NATO members is the deteriorating technological, strategic, and political superiority of the Alliance. This worrying rhetoric can be pinned on the inequitable relationship between capability and technology that has been weakening NATO's deterrence policy. Thus, to preserve the transatlantic bond as the strongest political, military, and economic relationship in the world, we need to look beyond the surface and address the core issues within NATO. This paper argues that the Alliance can preserve its future by leveraging cutting-edge technology and innovation.

Capability Shortfalls Fueled by Division

Professor Julian Lindley-French, an analyst on strategic affairs, accentuates the importance of NATO's military strategy by pointing that "if NATO cannot defend, it

cannot deter.”¹ NATO’s deterrence policy, as its core strategy, is under a heavy strain due to Europe’s lack of technological capacity.² Europe’s military debility surfaced during the 2011 air campaign in Libya and in the operations against the Islamic State between years 2011–16. Europe simply wouldn’t have been capable of conducting such operations in its own backyard without the support of the United States. Daniel Fiott, an analyst at the European Union Institute for Security Studies (EUISS), identifies that intelligence, surveillance and reconnaissance (ISR), air-to-air refueling interoperability, and airlift abilities are the key shortfalls of EU’s capability in proper crisis management—the main political-military objective.³ In that sense, the overall proliferation of sophisticated weaponry, precision-guided munitions, air-launched cruise missiles, indirect fire capabilities, growing cyber and range of missile defense systems as well as electronic and informational capabilities are making the Alliance’s deterrence less credible, as these technologies are no longer reserved to advanced NATO militaries.⁴ Specifically, in Eastern Europe, Russian Anti-Access/Area Denial (A2/AD) capacities give Moscow an overall local battlefield advantage in the Baltics.⁵ Potential conflict in Eastern Europe would require a relocation of NATO’s follow-up forces from Western Europe, but slow and ineffective military mobility in the region would limit the deterrent effect from a smaller regional aggression in the East.

“As the Alliance’s weak link, the future of NATO lays within Europe.”

The spectrum of European reactions to Trump ranges between an autonomous Europe and a stronger American dependence. The range of these reactions can be illustrated through the different strategies on the Paris-Berlin-Warsaw axis. In Paris, the political appetite for European defense integration has surfaced as an opportunity for an undisputed French leadership in Europe. Its military capabilities, nuclear triad, and command structures make France an unrivaled military force

¹ Julian Lindley-French, “NATO: Fort Trump? Try ARRC Poland,” *Speaking Truth Unto Power*, 2 July 2019, <http://lindleyfrench.blogspot.com/2019/07/nato-fort-trump-try-arrc-poland.html>

² Petr Boháček and Jakub Kufčák, “Strong NATO through strong Europe: Space and lasers as possible Czech contribution,” *Association for International Affairs*, 2018, http://www.amo.cz/wp-content/uploads/2018/10/AMO_Strong-NATO-through-strong-Europe-Space-and-lasers-as-possible-Czech-contribution-1-2.pdf

³ Daniel Fiott, *EU Defence Capability Development Plans, Priorities, Projects* (Paris: EU Institute for Security Studies (EUISS), 2018), p. 4.

⁴ Sylvie Matelly and Christian Mölling et al., “The Future of Transatlantic Strategic Superiority,” *GMFUS*, 27 April 2018, <http://www.gmfus.org/publications/future-transatlanticstrategicsuperiority>

⁵ Luis Simón, “Demystifying the A2/AD Buzz,” *War on the Rocks*, 4 January 2017, <https://warontherocks.com/2017/01/demystifying-the-a2ad-buzz/>

outside of NATO. While the EU's Permanent Structured Cooperation (PESCO) developed an inclusive, all-embracing set of projects of low strategic value, Paris launched the European Intervention Initiative under its own leadership to satiate the political appetite for European defense integration along with traditional security interests in North Africa. The ultimate interest of Germany in ensuring political stability, inclusiveness, and further integration of the single market resulted in a reserved and pragmatic position in relation to EU defense initiatives and the catch-all nature of PESCO that Germany pushed for. Berlin has instead further embraced the NATO Defense Planning Process—toning down the passionate talk about an EU army and developed the NATO Framework Nation Concept (FNC), that puts together Dutch, Romanian, Lithuanian, and Czech brigades with German divisions.⁶ Such a deliberate transatlantic defense position has served as an effective disguise over Germany's low defense spending and deficiencies in its army's combat capabilities. As for Poland, who was skeptical towards Europe's stance against Russian and Western-dominated defense integration and investment initiatives, took on the "Buy American" approach. This path aims at pleasing the Trump administration with arms purchases, such as Patriots and F-35s, as well as delivering personal glorification in the form of "Fort Trump," without clarity on its financing. Each approach erroneously only reacts to Trump's questioning of Washington's commitment to the Allies due to low defense spending, thus limiting responses to either symbolic American weapons purchases or the dangerous illusion of European autonomy. But neither can work.

Neither Autonomous Europe nor American Dependence

The prospects of a militarily autonomous Europe have been recently explored in a study by the International Institute for Strategic Studies (IISS). In the case of Europe proceeding independently, the study identified the military capability shortfalls, and most importantly, the price tag that Europe would encounter under two scenarios: forcing Russian invasion into Lithuania and Poland, and protecting sea lines of communication for trade.⁷ The challenges identified do not lay only in financing but mainly in the decades it would take to procure, train, and reach operational capability. Such massive investments are already hard to imagine given the EU's current defense spending and defense integration struggles. The ongoing PESCO that aims to fix some of the shortfalls along the lines of the EU's Capability Development Plan (CDP) and Level of Ambition is addressing only certain issues. The process that is based on the willingness and ambition of individual member states is already under pressure by the capacity building demands of NATO. Therefore, unsurprisingly,

⁶ Eva Hagström Frisell and Emma Sjökvist, "Military Cooperation Around Framework Nations," *Swedish Ministry of Defence*, February 2019.

⁷ Douglas Barrie et al., "Defending Europe: scenario-based capability requirements for NATO's European members," *The International Institute for Strategic Studies*, April 2019, <https://www.iiss.org/blogs/research-paper/2019/05/defending-europe>

countries tend to offer things they already have at hand rather than select the strategically critical and lacking areas across the block. The capabilities of the CDP that are absent from 34 ongoing PESCO projects include air combat capability, A2/AD capability, ballistic missile defense, strategic air transport, and tactical transport.⁸ These military equipment are key to deter Russia but more so China in the Pacific, especially for the US.⁹

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The low enthusiasm on improving strategic capabilities required to deter Russia can also be linked to Eastern Europe's weak participation in the EU's defense initiatives, and thus, the European Defense Fund (EDF). There are five PESCO projects led by Eastern European countries out of the total 34. Historically, the dissolution of the Warsaw Pact in addition to the major downsizing of post-Communist militaries after the Cold War resulted in a severe degradation of the hefty military industries in Eastern Europe. Today, the low competitiveness of small companies in the face of Western European conglomerates risk keeping Eastern European countries and their economies away from a big chunk of EU money. The declarations that cross-border cooperation and inclusion of small and medium-sized enterprises (SMEs) in the final EDF legislature are key, but what it will mean practically remains to be seen. Moreover, Eastern European politicians also struggle to generate and use political capital to lobby their interests through the EU, resulting in the typical “blame Brussels” game due to weak institutional and professional capacity to make such deals. However, the consequences of a weak Eastern European participation in defense initiatives corresponds to a smaller fraction of EU's strategic concerns, specifically vis-a-vis Russia. Therefore, although it appears logical for Poland and others to embrace US weapons in the promise of security guarantees, such an approach is also equally flawed and ineffective.

In that sense, Eastern Europe's “Buy American” approach lacks logic. It stands as a barrier in developing indigenous defense capacities and a strong European industrial base.¹⁰ Instead of channeling money into the single EU market, the approach cre-

⁸ Alice Billon-Galland and Yvonne-Stefania Efstathiou, “Are PESCO projects fit for purpose?” *European Leadership Network & The International Institute for Strategic Studies*, April 2019, <https://www.europeanleadershipnetwork.org/wp-content/uploads/2019/02/Final-PESCO-policy-brief-ELN-IISS-20-Feb-2019-ilovepdf-compressed.pdf>

⁹ Stephen Biddle and Ivan Oelrich, “Future Warfare in the Western Pacific: Chinese Antiaccess/Area Denial, US Air Sea Battle, and Command of the Commons in East Asia,” *International Security*, Vol.41, No.1 (2016), pp. 7-48.

¹⁰ Jean Belin and Sophie Lefeez et al., “Defence Industrial Links Between EU and US,” *ARES*, 2017.

ates manufacturing jobs across the Atlantic. As if low defense budgets and a growing burden on public finances weren't already enough, such investments lose their economic rationale by turning into jobs, innovation and research, and markets. Furthermore, US equipment frequently comes up as more expensive and with many unequal offset policies, which might make evolving Chinese, Russian or other alternatives more attractive to Eastern European countries. Such technology transfers are highly unfavorable for Europe as the US offset policies tend to be strictly bilateral with restrictions on use and production – delaying or completely blocking EU members from sharing resources that include US technology with each other.¹¹ Interestingly enough, Washington repeatedly criticized the European Defense Fund, calling its partner out on damaging transatlantic ties by allegedly building a “Fortress Europe,” and keeping American companies out.¹² Yet, unlike US military R&D projects that essentially keep European participants out (the US awarded only 0.17 percent of its R&D budget to EU companies), with certain conditions the EDF remains open to non-EU companies based in Europe in terms of funding. Moreover, the US arms exports to the EU amounted 62.9 billion dollars while the EU was granted contracts worth of 7.6 billion dollars in the 2014–16 period.¹³ Evidently, the “Buy American” approach will barely lead to effective and sustainable high defense spending as it does not bring a lot of added value to the society or the single market. Addressing the capability shortfalls and reaching a sustainable relationship requires an approach that is not based on asymmetry and dominance but mutual interdependence of two strong partners. Leveraging technology and warfare trends can be an effective fix.

Reflecting Warfare Trends to Address Shortfalls

The main danger to the transatlantic partnership is not Donald Trump but the vaporization of the partnership's previous underlining logic and mutual utility with the shifting geopolitical and warfare dynamics of the 21st century. While addressing the challenges mentioned above, the role of the technological monopoly shifting from public to private actors as well as emerging new technologies in transforming the military realm need to be considered. There are two areas – space and artificial intelligence – of new technology that not only have a significant strategic value but are driven by private actor innovations, and therefore, can benefit civilian society.

¹¹ Petr Boháček, “Future of Transatlantic Security: Interdependence not Autonomy in Space and Defense,” *Association of International Affairs*, December 2018, http://www.amo.cz/wp-content/uploads/2018/12/AMO_Future-of-Transatlantic-Security-Interdependence-not-Autonomy-in-Space-and-Defense.pdf; According to the 16 May official letter from the European Commission to Washington, <https://www.nytimes.com/2019/06/06/world/europe/us-defense-spending-nato.html>; Daniel Fiott, “The Poison Pill: EU defense on US terms?” *EU Institute for Security Studies*, June 2019, <https://www.iss.europa.eu/sites/default/files/EUISSFiles/7%20US-EU%20defence%20industries.pdf>

¹² Petr Boháček, “Industrial Competition Challenges Transatlantic Security,” *European Security Journal*, 22 March 2019, <https://www.esjnews.com/industrial-competition-challenge-transatlantic-security>

¹³ According to the 16 May official letter from the European Commission to Washington, available at <https://www.nytimes.com/2019/06/06/world/europe/us-defense-spending-nato.html>

“The low enthusiasm on improving strategic capabilities required to deter Russia can also be linked to Eastern Europe’s weak participation in the EU’s defense initiatives.”

Considering that the US military superiority over the Soviet Union has been frequently attributed to its space dominance, the utilization opportunities of space for the military realm is vast. Therefore, it is not surprising that the Alliance agreed to craft a NATO Space Policy at the July 2018 NATO Summit.¹⁴ After all, NATO operations and missions are heavily dependent on space-based assets, including critical ISR systems that rely on Synthetic Aperture Radar (SAR), Infrared (IR), Electro-Optical (EO), ELINT and SIGINT satellite data and services but also on the overall functioning of military equipment.¹⁵ Furthermore, it is evident from the future military needs mentioned in EU’s Capability Development Plan that the EU anticipates a growing demand for ISTAR (Intelligence, Surveillance, Target Acquisition, and Reconnaissance), access to a resilient network of military, civilian, and commercial satellites or other communication nodes for global reach, security of space-based assets, use of clusters of micro and nanosats, and new launch technologies to ensure European access to space as well.¹⁶ Addressing the concrete NATO deterrence issues in Europe, the Russian A2/AD advantage in the Baltics can be balanced by space-based assets for non-kinetic space debris removal by dazzling or jamming its signals. Further, European space security and tracking capabilities and satellite systems Copernicus and Galileo have the potential to be used for tracking ballistic missiles, supplementing NATO’s Airborne Warning and Control System¹⁷ or key military infrastructure for the transportation of follow-up forces to the East of Europe, another factor weakening the deterrence policy.¹⁸

In addition to space, artificial intelligence is worthy of mention in this context as well, as this area is being repeatedly described as the new sector of strategic competition between the US, China, and Europe. Despite Vladimir Putin’s 2017 claim that

¹⁴ NATO Brussels Summit Declaration, Brussels, 11 July 2018.

¹⁵ NCI Agency, “NATO BiSC Space Working Group Report on NATO’s Approach to Space,” 13 March 2014; “SCI-238-SM Specialists Meeting on NATO Space Dependencies (AC/323(SCI-238)TP/544) Report,” *Science and Technology Organization (STO-NATO)*, 10 January 2018.

¹⁶ RAND Europe, “Exploring Europe’s capability requirements for 2035 and beyond,” *European Defense Agency*, June 2018, <https://www.eda.europa.eu/docs/default-source/brochures/cdp-brochure---exploring-europe-s-capability-requirements-for-2035-and-beyond.pdf>

¹⁷ Philippe Brunet, Statement at the Security and Defense Subcommittee at the European Parliament, 15 May 2018.

¹⁸ Boháček et al., (2018).

AI technologies will decide who will rule the world – projecting a sci-fi vision of autonomous weapons and robots – the military use of AI lays rather in various uses of pattern recognition, planning, scheduling, image recognition, logistics management, and niche areas such as drones or electronic warfare. Michael Horowitz, a specialist on AI militarization, sees artificial intelligence not as a weapon but as a technology parallel to the combustion engine, of which the specific utilization by armies will determine its utility. Most importantly, with quality research, management, and innovation, such technologies can have a strategic effect equal to expensive and complex weapons systems—like aircraft carriers—that remain unique to the biggest military powers.¹⁹ It could thus be an efficient tool to balance out such capabilities with innovation and research.

However, before Europe can overcome its military insufficiency and contribute to transatlantic security, it has to confront several shortfalls. This includes the ineffective web of different entities, institutions, and budgets such as the intergovernmental European Space Agency (ESA), the EU's Agency for Space Programme, the EU Satellite Center as well as individual nation-states in space. In addition to ESA, there is a separate Agency for Space Programme under the EU's European Commission, governing the EU satellite systems and its security aspects, and the European Council, governing military aspects as the EU Satellite Center. Unsurprisingly, the planning and financing of these entities are similarly scattered. While the EU Space budget is expected to be 16 billion euros between 2020–27, the ESA's budget falls at around six billion annually, and individual national budgets range from three billion euros to tens of millions depending on the state.

In budgetary terms, the EU is attempting to leverage AI as well. The European Commission pledged an additional 1.5 billion euros in 2018–20, hoping to reach an annual AI budget of 20 billion euros within the next decade.²⁰ Although AI and space technologies amounted for several millions of euros within the European Defense Industrial Development Program (EDIDP) and Preparatory Action on Defense Research (PADR), an analysis found Europe lagging in all of AI's three key areas of talent, data, and hardware.²¹ According to McKinsey Global Institute, European spending on AI reached four billion dollars, behind China's seven billion dollars and US's 23 billion dollars in 2016. Europe's 6.5 billion dollars of venture capital is dwarfed by the US recorded 39.4 billion dollars flowing into AI in

¹⁹ Michael C. Horowitz, "Artificial Intelligence, International Competition, and the Balance of Power," *Texas National Security Review*, Vol. 1, No. 3 (May 2018); Michael Horowitz, "The Algorithms of August," *Foreign Policy*, August 2018.

²⁰ European Commission, "Artificial Intelligence Policy," <https://ec.europa.eu/digital-single-market/en/artificial-intelligence>

²¹ European Commission, "EDIDP and PADR Policy Factsheet," <https://ec.europa.eu/docsroom/documents/34510>; Ulrike Franke, "Harnessing Artificial Intelligence," *European Council on Foreign Relations*, 25 June 2018, https://www.ecfr.eu/publications/summary/harnessing_artificial_intelligence

2016.²² Europe continues to lack in innovation and development behind its Asian and American counterparts in other tech areas as well.²³ In the 2019 top ten most valuable companies, seven are technology companies, yet all of them are Chinese or American.²⁴ These are things to leverage, especially through the empowerment of non-state actors. As the technological deficit of European armies expands,²⁵ investing in research, development, and innovation will be the key to filling in the capability gaps within NATO.

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The transition to militarizing private civilian technology from military-developed technology for civilian use in the 20th century resulted in the technological and scientific monopoly to shift from public to private actors today. With the private sector taking lead, the quality of life can be a tool to attract talent and workforce for research, innovation, and new dynamic fields. On that note, Europe has things to offer, such as unique governance and set regulations aimed at curbing big tech monopolies to ensure fair competition and privacy rights. Furthermore, one of the consequences that is associated with the privatization of the technological domain is the globalization of supply chains and a mere impossibility to regulate them since the number of suppliers for a simple car can tally up to 1.25 million entities.²⁶ This is where regulation, standardization, and governance will become critical, and thus, where Europe can come into play. Further, the oft-repeated question whether Europeans need to increase their defense spending in exchange for welfare cuts loses its logic.

The private sector in the United States invested in AI unclassified programs more

²² Alice Shen, “Over 2,000 European AI experts join hands to challenge US, China in artificial intelligence,” *South China Morning Post*, 21 September 2018, <https://www.scmp.com/news/china/science/article/2165004/european-artificial-intelligence-experts-unite-bid-challenge-us>

²³ R&D spending in the EU in 2006-16 rose from 1.76 percent to 2.03 percent GDP, significantly behind the US (2.79 percent) or China (2.1 percent).

²⁴ Franke (2019).

²⁵ Munich Security Conference Report, “More European, More Connected and More Capable: Building the European Armed Forces of the Future,” *Security Conference*, 29 November 2017, <https://www.securityconference.de/en/news/article/more-european-more-connected-and-more-capable-msc-presents-new-report-on-european-defense-coope/>

²⁶ Elisabeth Braw, “The Manufacturer’s Dilemma,” *Foreign Policy*, 27 April 2019, <https://foreignpolicy.com/2019/04/27/the-manufacturers-dilemma-industrial-espionage-manufacturing-iphone/>

than 10 times than the US government in 2016.²⁷ The reusability of launch vehicles by SpaceX, its planned mega-constellations, or the vast amount of data owned and handled by big tech companies qualify for a strategic game-changer.

Technology as a Sustainable Answer for the 21st Century

The deteriorating transatlantic bond originates in the asymmetrical relationship caused by a weak Europe and a consequently deteriorating NATO deterrence policy. Despite the growing appetite for a new defense integration, Europe lacks an effective and sustainable model to address the mentioned capability shortfalls. Europe needs the most politically and economically feasible solution to become an indispensable and valuable partner, which means confronting the rivalry between national perspectives, the growing strain on public finances, future warfare trends, the European division as well as the protectionist US approach in technology.

At the transatlantic level, Europe and the US must work together to innovate and develop cutting-edge technologies. Jointly developing cutting-edge technology is now only acceptable as long as Europe submits to Washington's military goals, which aim to establish technological superiority over China.²⁸ With further integrating the European Union, dominance is no longer a working model for the transatlantic relationship. It is rather an interdependence. It is up to Europe to find a way how to address strategic shortfalls to not only deter Russia but China as well, also a systemic rival to Europe. To achieve that, Europe needs to become a serious military and technological partner and has to be able to effectively innovate, research, and build an industrial base as well as jobs.

It is hard to imagine that European defense spending, capabilities, and innovation will increase by buying more American weapons and products. But rationalizing hefty investments in technologies that benefit society, create value-added jobs, boost the single market, and have clear military applications – like space and AI – appear more feasible. New technologies offer a more cost-effective investment than the development of large complex platforms while having a similar strategic effect. While the complex weapons systems continue to dominate defense thinking, new technology can be an asymmetrical and cheaper alternative. Furthermore, focusing on dual-use technology can further rationalize increased spending and utilize the private sector potential. Unlike fighter jets or tanks, space technology or AI are not weapons by design but they can surely be weaponized. Developing their

²⁷ Michael C. Horowitz, "The Algorithms of August," *Foreign Policy*, 12 September 2018, <https://foreignpolicy.com/2018/09/12/will-the-united-states-lose-the-artificial-intelligence-arms-race/>

²⁸ Daniel Fiott, "Europe and the Pentagon's Third Offset Strategy," *The RUSI Journal*, Vol. 161, No. 1 (2016), pp. 26-31.

civilian purpose first can have deconflicting effects as well as initiate a pioneering role for non-state actors, who are unconstrained by national interests. Their drive, effectiveness, and civilian focus require not only an adequate and stimulating environment but a direction, guideline, and normative base from the government. Here, Europe can leverage its successful regulatory approach to big tech, ensuring competitiveness by demanding big companies to share data, protect privacy, and respect standards. But it must do it together.

All in all, adapting to the 21st century requires a change in perspectives. The idea that sophisticated technologies can only be in the monopoly of one country has consistently been proven wrong. The complex intertwined global supply chains make it nearly impossible to ensure complete independence. In such an economically and technologically interconnected and interdependent world, where disruptions from cyber, space, energy, and AI are rising, instead of being confined to geography, it is best to nurture mutually beneficial interdependence across Europe and the Atlantic – a model that might be globally applicable in the future.