

# Hanging Together

Partners and Policies for the Netherlands and EU  
in Turbulent Times

**Strategic Monitor**  
2021-2022



**Jack Thompson**  
**Danny Pronk**

January 2022



The Hague Centre  
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**Clingendael**

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## Note to the Reader

The Strategic Monitor 2021-2022 consists of a synthesis (“Hanging Together”) – the document in your hands or on your screen – as well as five sub-reports and three Strategic Alerts. The synthesis includes summaries of the sub-reports. The full versions of these sub-reports can be found online at [www.hcss.nl](http://www.hcss.nl) or [www.clingendael.org](http://www.clingendael.org). The three Strategic Alerts are not included in this synthesis but can be found online:

- “Towards a Space Security Strategy: Action Points for Safeguarding Dutch Security and Prosperity in the Space Age,” by Hugo van Manen, Tim Sweijs, and Patrick Bolder; <https://hcss.nl/report/strategic-alert-towards-a-space-security-strategy/>
- “National Security Implications of Quantum Technology and Biotechnology,” by Carolina van Weerd and Deborah Lassche; <https://hcss.nl/report/strategic-alert-quantum-technology-biotechnolog/>
- “Fifty Shades of Grey: 21st Century Strategic Competition with Russia and China,” by Danny Pronk; <https://www.clingendael.org/publication/21st-century-strategic-competition-russia-and-china>



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# Executive Summary

**B**enjamin Franklin famously admonished his fellow signatories to the US Declaration of Independence, “We must all hang together, or most assuredly we shall all hang separately.” Franklin meant that the thirteen colonies had to remain unified in the face of significant internal divisions and an unforgiving geopolitical landscape if they were to gain their liberty from Great Britain. If they did not, then their cause – and in the case of Franklin’s co-signers, their very lives – would undoubtedly be lost.

Though dramatic – and possibly apocryphal – Franklin’s epigram is nonetheless an apt description of the situation confronting the Netherlands and other EU member states today. If they do not hang together – if they do not forge a common vision for foreign and security policy – they surely will be left to shift for themselves in a world characterized by accelerating great power competition and eroding multilateral institutions. In a nutshell, the failure to solidify Europe’s global role would mean reduced prosperity and sovereignty for states such as the Netherlands.

The pursuit of strategic autonomy is supposed to provide a framework for building a geopolitical Europe. Though there are significant inter-EU differences as to the definition of strategic autonomy, most would agree that it should entail bolstering resilience to economic and security threats and enhancing the EU’s ability to act independently of other states. The ultimate goal is to enable the Netherlands and EU to hold their own in the face of an international landscape more daunting than

anything since the end of the Cold War. The growing tendency to treat access to sensitive technologies as a zero-sum game, the increasing impact of emerging and disruptive technologies in every facet of international economics and security, the waxing climate crisis, the militarization of international politics amongst great powers and in key regions such as the Middle East – taken as a whole, this set of problems poses nothing less than an existential challenge, one requiring a long-term, coordinated response from EU member states.

This report seeks to identify policies and partners intended to advance the goal of strategic autonomy. It reaches two main conclusions. First, progress has been made in the five areas evaluated in the report. When it comes to the problem of techno-nationalism, the EU has taken initial steps towards putting an infrastructure in place for mitigating the negative impact. In the realm of intelligence cooperation, the EU has created several institutions intended to facilitate intelligence sharing between member states. In the field of arms control, the EU has established expertise in the provision of technical and financial assistance to support the implementation of treaties and the work of international agencies. EU member states also have considerable experience in collaborative armaments programs and have a number of such programs in the pipeline. Last but not least, the Netherlands and EU have become global leaders in understanding and acting upon the security implications of climate change. However, in spite of such progress, more work is needed in each of these areas.

The second principal conclusion of the report is that two big hurdles still face the EU. It is hampered by significant shortcomings in capabilities, especially in the realm of defense. It is also struggling with the problem of insufficient political will, a problem driven in large part by the EU's structure – which entails constant tension between the supranational and national components – and the influence of nationalist and anti-EU political parties.

As a guide to hanging together in the quest for strategic autonomy – both in the specific fields evaluated, and the broader problems of capability shortcomings and insufficient political will – the report develops three broad principles. First, it contends that only by actively working to establish rules and norms in key areas of international concern will the Netherlands and EU be able to shape an environment conducive to European interests and values. In particular, they should focus on minilateral and multilateral international partnerships in areas such as climate security, arms control, emerging tech, and space. In other words, the Netherlands and EU should lean into their already considerable normative power. Second the report argues that better protecting EU member state economies and societies from external interference in areas such as espionage, hybrid operations, unfair market policies, and extra-territorial sanctions will enhance efforts to hang together. The EU will not be able to resist the divide and rule tactics employed by other great powers if it does not get its act together in this area. Third, the report asserts that defending and deterring potential adversaries through boosting

military strength and fostering closer military collaboration will both make the Netherlands and the EU more resilient and capable and make it easier to forge unity on key foreign and security policy questions. EU member states have been talking a good game in these areas for years; now it is time to begin putting their money where their mouths are by investing in capabilities and collaborative programs and by doing a better job of leveraging NATO and security relationships with other like-minded actors.

Europeans could do worse than looking to US history for inspiration whenever they despair about the outlook for strategic autonomy. Americans tend to idealize the origins of their nation but in reality, the process was slow and frustrating and could have collapsed many times. It was not fully secure until victory in the War of 1812, at the very earliest. The thirteen colonies stuck together through thick and thin not out of idealism, but out of sheer necessity; failure to do so would have led to dissolution of the Union. They recognized that, left to fend for themselves, the individual colonies would have been easy prey for the great powers of the era, such as Britain and France.

Similarly, the Netherlands and other EU member states should keep in mind that strategic autonomy is a tool designed out of necessity, to make them more capable and resilient. It will often be difficult, and will always require compromise, but it is necessary if they wish to safeguard their interests and values in a dangerous world. After all, the alternative to hanging together is to hang separately.

# 1. Introduction

**The focus of this report is identifying policies and partners for the Netherlands and EU that will further the goal of fostering strategic autonomy. The context for this process is an international system characterized by accelerating great power competition and eroding multilateral institutions.**

The international landscape has changed dramatically since the 2010 publication of “Future Policy Survey: A new Foundation for the Netherlands Armed Forces,” the report on which much of Strategic Monitor’s subsequent work is based. That Future Policy Survey yielded four scenarios for the future of the international order. These scenarios – Multilateral, Multipolar, Networked, and Fragmentation – projected how, and with what consequences, the international system would change by 2030. In subsequent years, the Strategic Monitor:<sup>1</sup>

- Detected a growing degree of assertiveness among the major powers (2013-2014)
- Highlighted the role of pivot states in sparking conflict (2014)
- Investigated the fragility of the Middle East and the contagious effects of political violence (2014 and 2017)
- Looked into the return of interstate crisis in hybrid forms (2014-2015)
- Postulated the emergence of a multi-order (2017)
- Identified the existence of an interregnum, a transition phase during which the old order had expired but the new one had not yet coalesced (2019)
- Examined the development of a new international order, one that is based on a collection of international regimes, not the continued primacy of a singular liberal world order (2020)

Last year’s Strategic Monitor developed a broad blueprint for moving beyond the Netherlands and EU’s longstanding political and security dependence on the United States, in a constructive and open manner, and argued that this would be the best way to safeguard Dutch and EU interests in a geopolitical era. The need to implement strategic autonomy in this spirit – as a way to strengthen the transatlantic relationship and to protect European interests and values in an era of geopolitical competition – is the starting point for this year’s Strategic Monitor. It consists of several parts, including:

- This synthesis report
- Five sub-reports:
  - “Climate Security in Global Hotspots: Policy Options for The Netherlands,” by Dorith Kool and Laura Birkman
  - “Taming Techno-Nationalism: A Policy Agenda,” by Hugo van Manen, Tobias Gehrke, Jack Thompson, and Tim Sweijts
  - “Shifting Sands of Strategic Stability: Geopolitical Competition, Emerging Technologies, and the New Arms Control Agenda,” by Paul van Hooft, Lotje Boswinkel, Tim Sweijts, Benedetta Girardi, and John Michaelis
  - “Sharing the Burden, Sharing the Secrets: The future of European intelligence cooperation,” by Danny Pronk and Claire Korteweg
  - “Identity, Industry and Interoperability: The Drivers of European Armaments Collaboration,” by Danny Pronk, Dick Zandee and Adája Stoetman

<sup>1</sup> ‘Strategic Monitor Archives,’ HCSS, accessed 12 November 2021, <https://hcss.nl/news/topic/strategic-monitor/>.

The sub-reports are summarized in the following pages. Each summary includes a description of the phenomenon, an analysis of the implications for the Netherlands and for Europe, and recommendations for partners and policies.

## Methodology

The Strategic Monitor is intended to serve two functions. It monitors and evaluates the implications of current developments for Dutch and European Security. It also is designed to provide foresight guidance up to ten years into the future.

This year's Strategic Monitor utilizes a number of methodological tools:

- Case studies
- Data-driven risk assessment
- Desk research
- Expert surveys
- Game-driven analysis with policymakers from the Dutch Ministries of Defense and Foreign Affairs
- Interviews with Dutch and EU policymakers and experts in the research sector and industry
- Literature reviews
- Presentations by international experts and academics

“

**The need to implement strategic autonomy in this spirit – as a way to strengthen the transatlantic relationship and to protect European interests and values in an era of geopolitical competition – is the starting point for this year's Strategic Monitor**

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# 2. Taming Techno-Nationalism

## 2.1. Geopolitics and Sensitive Technologies

In recent years, the Netherlands and other European countries have been confronted with attempts by the United States and China to force or prevent the transfer of sensitive technologies. The geopoliticization of such technologies is emblematic of a wider and more worrying trend at the global level. Awareness of the economic, military, and strategic relevance of access to and control over the distribution of modern technologies is growing. Recognition that a nation's technological innovation and capabilities are linked to its national security, economic prosperity, and social stability is driving a new wave of techno-nationalism. Increasingly, states are treating access to sensitive technologies as a zero-sum game and pursuing policies to expand national control over and international influence through sensitive technologies. These technologies are costly and time and human capital-intensive to develop. The technological expertise necessary to pioneer breakthroughs and to engineer and realize real-world applications takes years to cultivate. In dealing with techno-nationalism, European states will need to implement new policies and oversight processes to safeguard security and promote prosperity. On one hand, they will need to reduce the negative impact of techno-nationalist policies by putting safeguards in place, while on the other, they will need to bolster the competitiveness of their innovative ecosystems.

The Netherlands has first-hand experience with attempts by the United States (US) and China to force or prevent the transfer of sensitive technologies. ASML, the world's largest supplier of photolithography systems critical to the production of integrated circuits, works on technologies that have been designated as vital to national security by Dutch authorities. It fell victim to (allegedly) Chinese-backed corporate espionage in 2015 and was subjected to US pressure to halt its export of technologies to China in 2020.

As recognition of the economic, military, and strategic relevance of access to and control over the distribution of modern technologies has grown, so too has the prevalence of the sentiment that a nation's technological innovation and capabilities are linked to its national security, economic prosperity, and social stability. Various referred to as "techno-nationalism," and "innovation mercantilism," this sentiment can be clearly discerned in the national security strategies of the US, Russia, China, and India, amongst others. (See Table 1 below for an overview of common types of techno-nationalist strategies.) It is creating incentives for states to treat access to sensitive technologies as a zero-sum game and to pursue policies to expand national control over and international influence through sensitive technologies.

Table 1: Strategies of Techno-Nationalism: an Overview

Measures that transfer technology and/or technological know-how	Market-based approaches	Legislative approaches	Forced	Measures that make for an uneven playing field		
				Direct	Indirect	Standard setting
	<p><b>Foreign direct investment (FDI) &amp; acquisitions.</b> FDI &amp; acquisitions offer a clear path to acquiring both technology and technological know-how.</p>					
	<p><b>Patent licensing.</b> Patent licensing is a key part of many companies' business models. Typically implemented as business to business (B2B) arrangements, the practice allows a company that has developed a technology to charge 3<sup>rd</sup> parties to use said technology in their products.</p>					
	<p><b>Technology purchases.</b> Similar to patent licensing, the acquisition of high-tech goods and services lends itself to the manifestation of negative outcomes because many of the actors which engage in techno-nationalism behave in uncompetitive ways.</p>					
		<p><b>"Lose the market" laws.</b> Localization barriers to trade (LBTs, or "lose the market" laws) link market access to a series of preconditions, such as intellectual property (IP) sharing or opting into technology transfers.</p>				
		<p><b>"Violate the law" laws.</b> "Violate the law" laws are laws that are designed to allow for the easy prosecution and sanctioning of companies that refuse to cooperate with efforts at facilitating technology transfers once they are already active within a country's domestic market.</p>				
		<p><b>"No choice" dynamics.</b> "No choice" dynamics are dynamics that make it difficult for foreign companies to protect themselves from technology theft within a country's borders.</p>				
			<p><b>Forced approaches</b> constitute the final approach type that can be employed to secure technology transfers. These include, but are not limited to, the use of espionage and the leveraging of diaspora.</p>			
				<p><b>Direct support</b> includes, but is not limited to, financial support (in the form of investments, gifts, subsidies, etc.) and logistical and/or operational support (i.e.: the use of state intelligence agencies to provide companies with a 3<sup>rd</sup> party's technological know-how).</p>		
					<p><b>Indirect support</b> generally takes the form of protectionist or mercantilist policies intended to reduce foreign companies' ability to compete domestically.</p>	
						<p><b>Standard setting</b> includes the strategic pursuit of long-term initiatives geared towards reducing 3<sup>rd</sup> countries' structural ability to compete. These include, but are not limited to, leveraging first-mover advantages to introduce beneficial (technical) standards through international standard-setting bodies and investing into initiatives such as the Belt and Road Initiative (BRI), which aid in fostering long-term dependence by facilitating the adoption of key technical standards.</p>



## Increasingly, states are treating access to sensitive technologies as a zero-sum game and pursuing policies to expand national control over and international influence through sensitive technologies

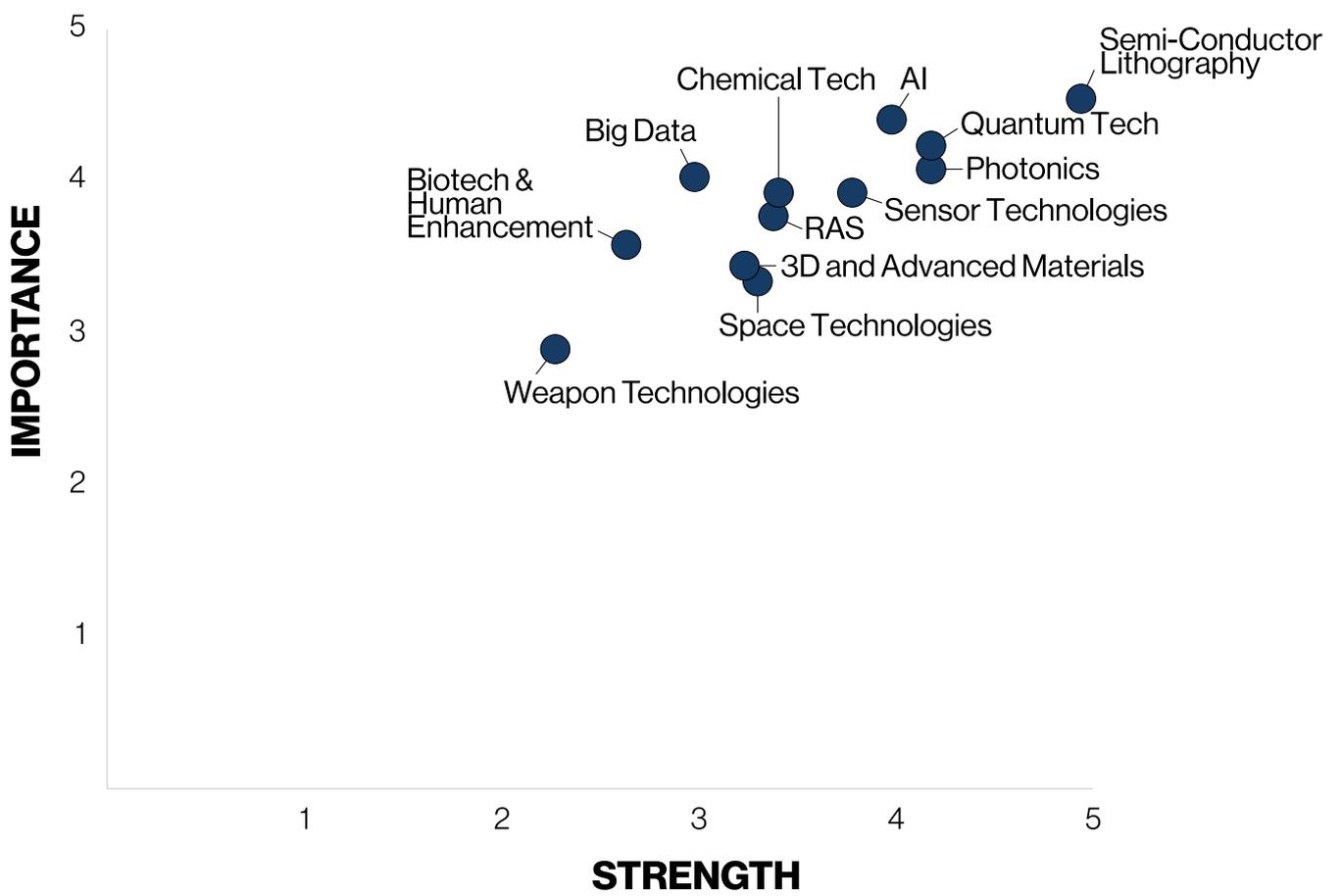


The geopoliticization of sensitive technologies – even those which, at first, appear banal or consumer-focused in nature – are on clear display in debates surrounding European telecom providers' use of Huawei technologies within their 5G networks, fresh discussions regarding Johnson & Johnson's purchase of Crucell, and the United Kingdom's (UK) response to NVIDIA's proposed acquisition of ARM.

Certainly, the phenomenon of techno-nationalism is not new. France stole the Jenny Spin Wheel from Great Britain during the Napoleonic Era. The US and the Soviet Union allocated exorbitant funds to military procurement and research and development during the Cold War. Japan embraced anti-competitive trade policies to facilitate the growth of modern-day mega-corporations such as Sony and Toyota in the 1970s, harming the prospects of many European manufacturers in the process. However, the techno-nationalism which the world is contending with today differs from past incarnations in that, in an era of intensified great power competition, the resurgence of techno-nationalism has prompted states to view sensitive technologies as vectors of influence peddling and control. In this context, many sensitive technologies combine a transformative impact on national industries and warfighting capacities with extremely high barriers to entry.

This study offers guidance for ways that the Netherlands can protect its economy and society in the face of accelerating techno-nationalism. It is intended to provide Dutch policymakers with an overview of steps they might take to interpret, implement, and enforce key pieces of existing EU legislation and pieces of national legislation it can introduce which do not clash with its commitments to the trading bloc. It provides a roadmap of initiatives falling within the EU's exclusive competences which the Netherlands should seek to implement. It begins with an identification of technologies that are critical to Dutch national prosperity and security, providing an appraisal of the Netherlands' R&D capacities within each of these technologies (see Figure 1). It then provides a concise overview of the various strategies of states to achieve techno-nationalist goals. Finally, it identifies policy instruments that the Netherlands and the EU can employ to safeguard their innovation ecosystems from techno-nationalism. These policy options are translated into policy recommendations based on an expert survey and on an analysis of existing EU and NL-level policy initiatives and instruments.

Figure 1: Expert Appraisals of the Strength & Importance in Sensitive Tech Areas for the Netherlands



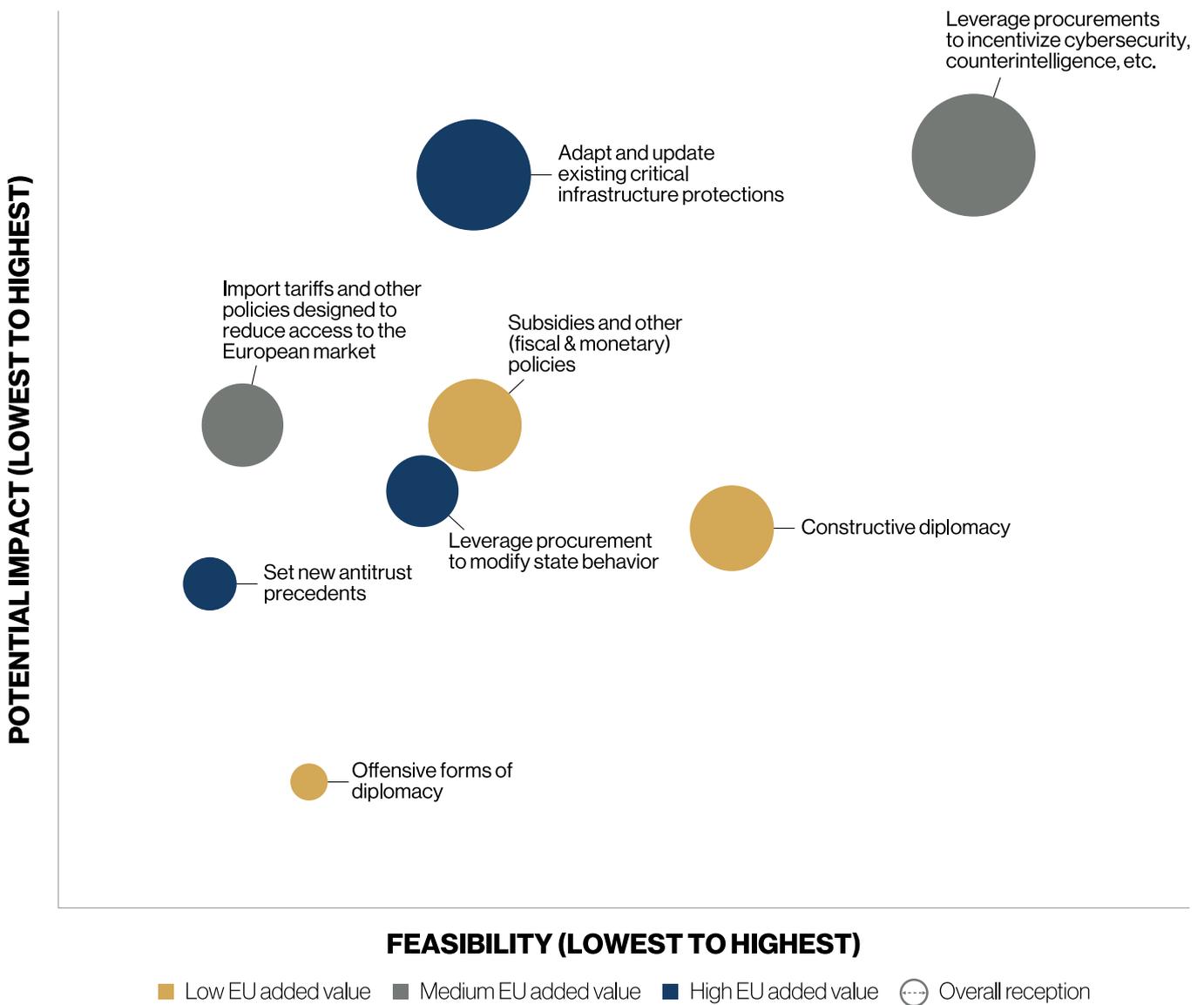
## 2.2. Implications for the Netherlands and for Europe

Economic competitiveness and military capacity are both increasingly defined by access to sensitive technologies. This makes the ability to develop and apply them independently key to Dutch and European technological sovereignty. Techno-nationalists have been quick to recognize sensitive technologies' role in fostering dependencies and in establishing spheres of influence. The result has seen sensitive technologies play an increasingly pronounced role in international – especially great power – competition, something which has served to highlight Dutch and EU vulnerabilities to techno-nationalist measures. A handful of structural factors – many of them interlinked with good-faith assumptions or rooted in European norms and values – undermine the trading bloc's ability to protect the outputs of its robust R&D infrastructure. Brain drain, the loss of R&D capabilities, and the transfer – whether through theft or otherwise – of technological knowledge are the consequences. Competition over sensitive technologies has also increasingly undermined European companies' ability to compete on the global market, reducing their reach and their turnover and negatively impacting their freedom to finance key R&D activities going forward. This threatens to lock-in the trading bloc's dependence on US and Chinese technologies in the long term, dashing any serious hopes of achieving a degree of Dutch or European technological sovereignty in the process.

These are not easy problems for the EU to address. Sensitive technologies are likely to constitute an increasingly salient aspect of international competition as the US and China draw closer to technological parity, creating incentives for both to leverage their domestic systems to secure access to even the smallest technological advancements. Middle powers are also likely to step up their efforts to secure access to sensitive technologies. Confronted with a choice between being dependent on gatekeeper states and safeguarding some degree of independence by pursuing techno-nationalist policies of their own, many will opt to engage in a race to the bottom. This is almost certain to translate into increased pressure on the Dutch and European innovation bases, something which will further increase the pertinence of implementing regulatory, procurement-based, fiscal, and diplomatic policies geared towards mitigating the impact of directly and indirectly oriented techno-nationalists alike.

The EU is not taking this in stride. Although this undoubtedly points toward increasing awareness of, and concern over, techno-nationalism's negative effects on the part of Dutch and EU policymakers, both have fallen short in comprehensively addressing the goals identified through this study's expert surveys (see Figure 2 below). Specifically, current policy does little to address indirect approaches, particularly within the technology space, fails to offer solutions to many directly approaches, and falls short when it comes to compensating for many of the trading bloc's structural characteristics.

Figure 2: Survey Results, Feasibility and Potential Impact of Policy Responses to Techno-Nationalism



## 2.3. Solutions: Policies and Partners

There should be an explicit acknowledgement at the national level and in Brussels that only by doing more to protect European societies and economies from external interference will strategic autonomy be feasible. What does this mean in concrete terms when it comes to techno-nationalism? The sub-report “Taming Techno-Nationalism” offers five high-level recommendations that would give policymakers more options for combating the problem and would make Dutch and other EU member states more resilient in the face of the international tendency to geopoliticize sensitive technologies.

First, critical infrastructure protections should be applied to sensitive technologies. One approach to protecting sensitive technologies from market-based approaches is to apply the same regulatory logic to companies working on sensitive technology as to companies involved in maintaining critical infrastructure. The Netherlands currently applies such a framework to all companies involved in its “vital processes,” with the National Coordinator for Counterterrorism and Security, or Nationaal Coördinator Terrorismebestrijding en Veiligheid (NCTV), and the Dutch Ministry of Economic Affairs both being involved in the screening process.

Second, procurement should be leveraged to improve cybersecurity and counterintelligence.

By making access to Dutch R&D funding conditional on an organization’s ability to meet certain (cyber) security standards or to show a commitment to organizational learning in this area, the Netherlands’ innovation ecosystem could increase its resilience to many of the forced approaches that are commonly utilized by adversaries.

Third, fairness principles should be utilized in order to erect legitimate barriers to trade and to procurement. There are several laws and principles which the Netherlands could cite should it wish to implement barriers to trade or limits on procurement on legitimate grounds, and thereby avoid undermining the Netherlands’ ability to participate in the formation of favorable international rules and norms pertaining to techno-nationalism. These include excluding Chinese companies from accessing Dutch and or EU procurement funding until China complies with the WTO’s Agreement on Government Procurement; allowing US companies to participate in Dutch or EU procurement funding on a case-by case basis; developing a framework for identifying states’ engagement in directly or indirectly-oriented forms of techno-nationalism; and activating NATO to safeguard economic security by cooperating on preventing foreign vendors from supplying sensitive technologies to critical infrastructure providers and formulating clear escalation ladders for responding to instances of state-sponsored economic espionage or sabotage.

Fourth, competitiveness could be bolstered with a more comprehensive approach to the innovation

ecosystem. With a few exceptions, the entities that make up the Netherlands' innovation ecosystem are too small to survive exposure to techno-nationalist threats, so the Netherlands has an interest in providing these entities with the conditions and impetus necessary to grow. Implementing policies designed to incentivize university research teams to found startups – and empowering those startups to mature into scale-ups and eventually grown-ups – would have high-level benefits. Encouraging, supporting, and contributing to domestic vertical ecosystem integrations would also benefit the Dutch innovation ecosystem.

Finally, states should do more to encourage and support EU-level initiatives. The Netherlands has a strategic interest in ensuring that sensitive EU industries can maintain and hone their competitive edges internationally. It can contribute to this goal by encouraging and supporting EU-level initiatives that make it easier for member states to hang together on issues such as unfair competition, competition in third countries, the European Future Fund, a European tech visa for attracting and retaining talented workers, and international cooperation on tech-industrial policy and R and D efforts.

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**The Netherlands has a strategic interest in ensuring that sensitive EU industries can maintain and hone their competitive edges internationally**

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# 3. Sharing the Burden, Sharing the Secrets

## 3.1. Intelligence Cooperation in Europe

Fostering closer intelligence cooperation amongst member states and with key external partners is essential if the European Union is to achieve the Strategic Compass' goals for security and defense and, more broadly, advance the goal of strategic autonomy. However, because intelligence activities lie at the heart of national sovereignty, they are among the most difficult areas in which to enhance cooperation.

Over the years, the EU has created several institutions intended to facilitate intelligence sharing between its member states. These organizations provide mechanisms for the diffusion of intelligence between and among national authorities. Intelligence, both as a process and product, has been promoted by the EU as a tool in the fight against terrorism, radicalization, organized crime, and other security challenges. A range of agencies collect, analyze, and operationalize intelligence.

Extensive intelligence cooperation already takes place on a bilateral basis, so this study focuses on the challenge of enhancing multilateral arrangements for cooperation. Progress in this area would facilitate strategic autonomy by making it easier to deter and defend against potential adversaries and to protect European societies and economies from external interference.

When it comes to intelligence cooperation, there is a trade-off. States seek to accrue additional intelligence and strengthen political relationships while minimizing the costs in terms of loss of autonomy and increased vulnerability. The main risks entail the possible disclosure of knowledge levels, methods, and sources or the defection of a partner. There are also major obstacles which can obstruct cooperation even in cases where governments promote it, such as bureaucratic resistance. The dynamics in intelligence cooperation can only be understood in relation to the balance between these conflicting interests shifts over time.

Three factors can shift the balance, thus affecting the prospects for intelligence cooperation amongst EU member states and with external partners. The first is internal demand. In this instance, the establishment of intelligence cooperation is driven by states, at least in part, in order to address domestic demands or challenges, such as a deteriorating security situation. Common policies on internal and external security can increase the need for "common" intelligence. The second factor is external pressure. For instance, changes in the international or regional balance of power may push state or a group of states to either rebalance an existing relationship to avoid a situation of dependency or to increase cooperation in order to balance against a common perceived threat. The third factor that can shift the balance in conflicting interests is cooperative momentum. This builds on the idea that collaboration originates from within the process itself. As soon as a structure is established, there will be mechanisms that facilitate further cooperation. In particular, building trust can lead to increased cooperation.

## 3.2. Implications for the Netherlands and for Europe

When it comes to inter-EU cooperation, intelligence cooperation in the field of early warning could help the EU better respond to external conflicts and crises, support the protection of the Union and its citizens, and advance the development of a common European intelligence culture. Although the EU and NATO are organizations with different characters and toolboxes, there are opportunities for knowledge exchange in several respects. First, the operationalization of the EU Early Warning System (EWS) could be strengthened by incorporating elements from the NATO Intelligence Warning Systems (NIWS). See Figure 3 for a depiction of the five stages of NATO's warning cycle. Second, EU cooperation on countering hybrid threats needs to be guided by a regularly updated threat assessment and by a comprehensive situational awareness. Given existing limitations for classified information sharing, the EU Hybrid Fusion Cell should consider enhancing cooperation with both NATO's Hybrid Analysis Branch and the Hybrid Centre of Excellence (CoE), with the aim of strengthening joint situational awareness and understanding.<sup>2</sup>

Finally, the Intelligence College Europe (ICE) provides an ideal framework for organizing panels, seminars, and discussions to promote European cooperation in the field of early warning and the development of a common culture among European intelligence experts.

There are two significant opportunities for intelligence cooperation with non-member states. First, the EU and Japan should be natural intelligence partners. According to a model for comparing intelligence cultures developed by Mark Pythian (see Figure 4), Japan and the EU are compatible on several levels. The EU and Japan share similar views of security and the challenges posed by increasing strategic competition, both in terms of the extent to which competition occurs across political, economic, and military realms, and in terms of the growing salience of gray zone tactics. This is an example of external pressure encouraging intelligence cooperation. Moreover, as a democratic state, Japan is in the same category of regime type as EU member states. There are also useful similarities in the structure and functioning between the five main organizations in the Japanese intelligence community – the Cabinet Intelligence and Research Office (CIRO), the Defence Intelligence Headquarters (DIH) of the Ministry of Defence, the Intelligence and Analysis Service (IAS) of the Ministry of Foreign Affairs, the Public Security Intelligence Agency (PSIA), and the National Police Agency (NPA) – on one hand, and Dutch or European intelligence agencies, on the other.

<sup>2</sup> Frank Bekkers et al., 'Substantiating the Defence Strategic Challenges' (HCSS, 17 November 2019), <https://hcss.nl/report/substantiating-the-defence-strategic-challenges/>; Dick Zandee, Sico van der Meer, and Adaja Stoetman, 'Countering Hybrid Threats: Steps for Improving EU-NATO Cooperation' (Clingendael Institute, October 2021), <https://www.clingendael.org/pub/2021/countering-hybrid-threats/>.

Figure 3: NATO's Intelligence Warning Cycle

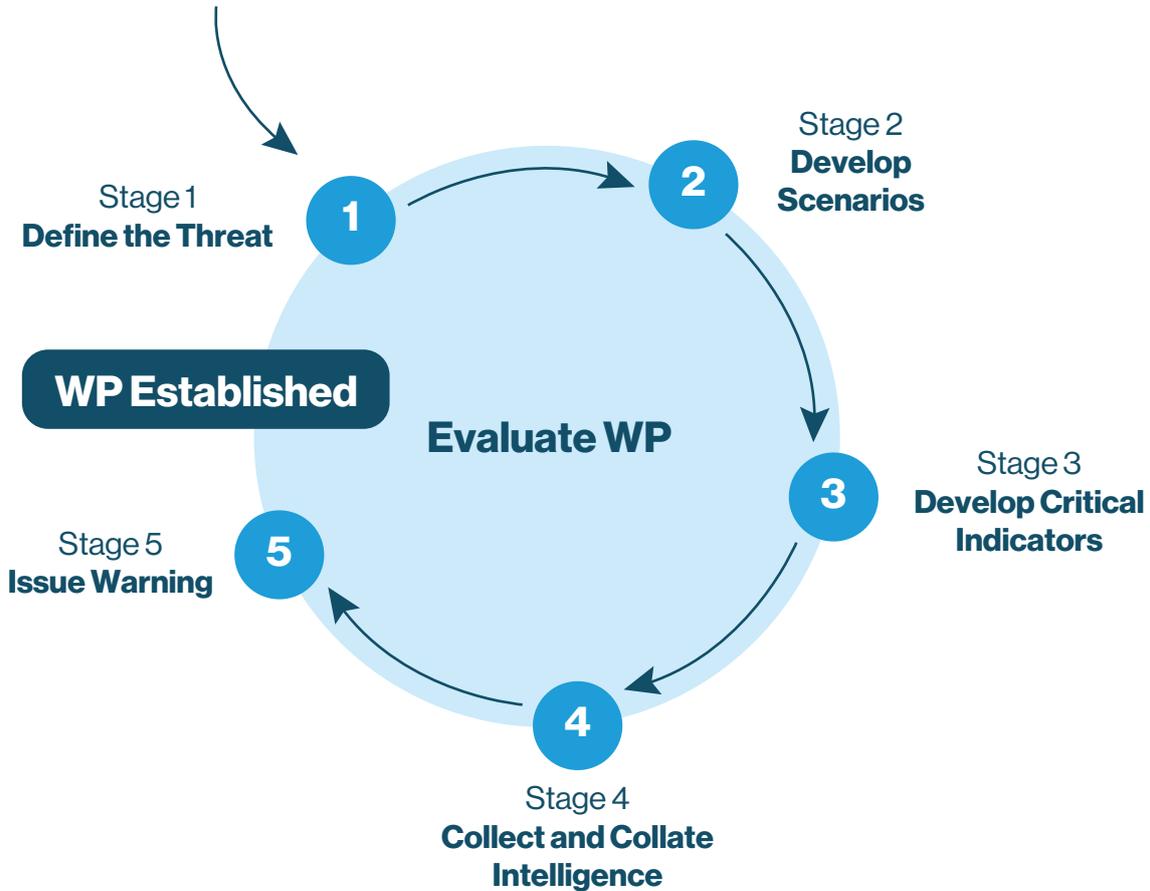


Figure 4: Levels for the Comparison of Intelligence Cultures

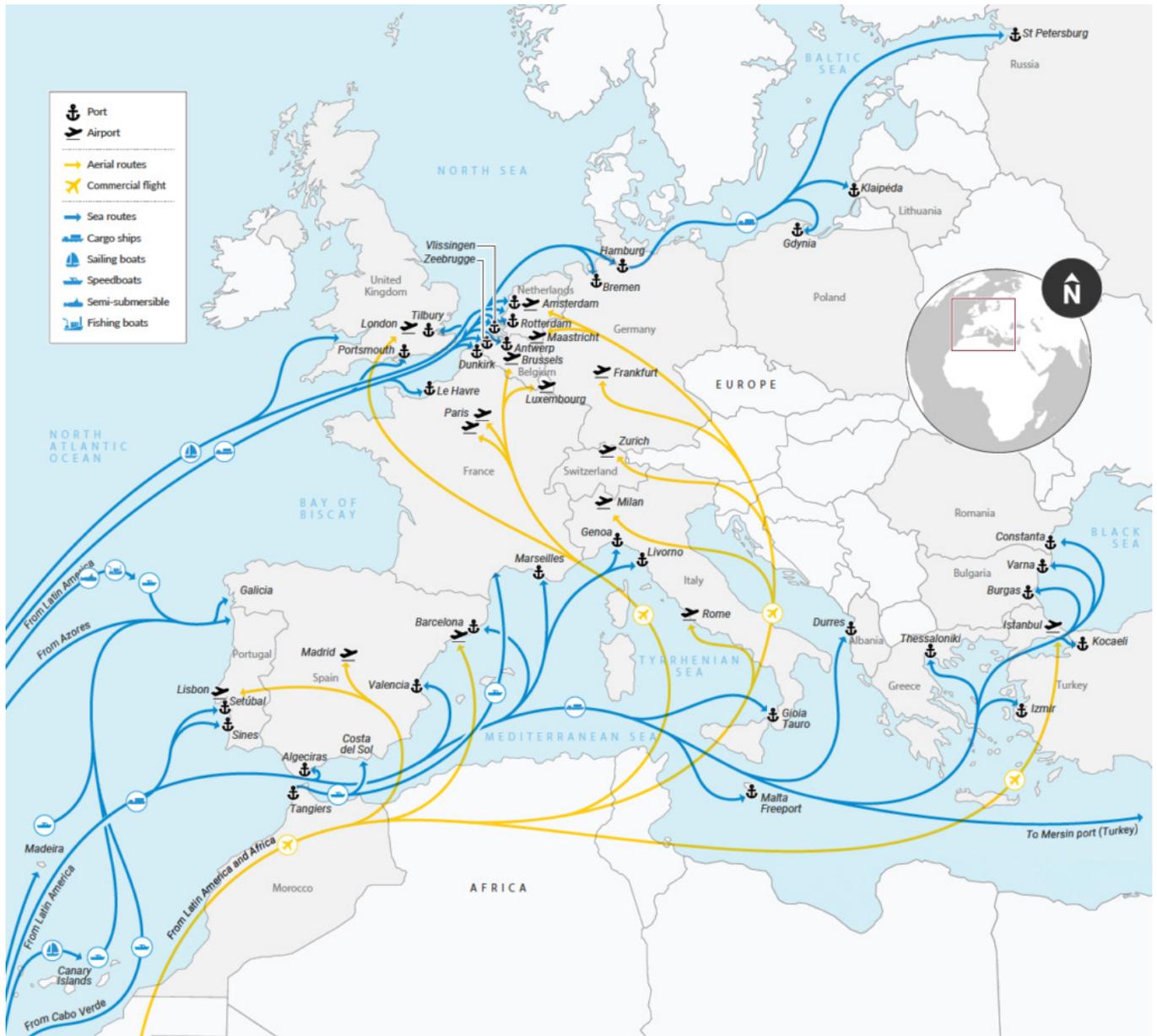


Given these similarities in perceptions of the strategic environment, regime type, and society, there is untapped potential for cooperation between Japan and the EU. The 2019 Strategic Partnership Agreement

between the EU and Japan makes explicit references to cooperation in areas such as military and regional security, but to date relatively little has been achieved in these areas. Potential areas for increased cooperation are the sharing of intelligence on China's military affairs, maritime policy, and the modernization of the People's Liberation Army (PLA), on nuclear and ballistic missile developments in North Korea, and on terrorism.

The other opportunity for significant external cooperation is with the United Kingdom, specifically in the areas of maritime and air surveillance and intelligence sharing. Collaboration in these areas would bolster the intelligence and real-time action capabilities of EU member states and partner nations in the areas of border security and counternarcotics. There has been an increase in illicit drug trafficking by sea and air from Latin America and the Caribbean, across the Northern Atlantic, to Europe. Seizures of large volumes of cocaine at European ports are now common. The Caribbean is a major transit point for shipments of Latin American cocaine destined for European markets. (See Figure 5.)

Figure 5: Cocaine Trafficking Routes to Europe



Cooperative momentum could play a role in this case, specifically in the form of existing multilateral structures for combating narcotics smuggling. European organizations such as the Maritime Analysis and Operations Centre – Narcotics (MAOC-N), could build on experiences from the Caribbean, where British and Dutch participation in the Joint Interagency Task Force-South (JIATFS) has proven to be an effective framework for regional cooperation with partner countries in countering illegal narcotics trafficking. JIATFS is considered the gold standard

for interagency cooperation and intelligence fusion in the field of counternarcotics. It was created in 1994 and focuses on improving the intelligence fusion process, resulting in actionable intelligence products. These products are based on multiple intelligence sources, including imagery intelligence provided by the US Coast Guard, signals intelligence provided by the National Security Agency (NSA), human intelligence provided by the Drug Enforcement Agency (DEA), and by agents and sources of foreign partner countries.

### 3.3. Solutions: Policies and Partners

If EU member states are going to succeed in hanging together, they will need to cooperate on intelligence matters more effectively. Only by enhancing such cooperation will they boost their ability to defend against and deter potential adversaries and protect EU societies and economies from external interference.

This report offers recommendations in two areas. Within the EU, they could strengthen the EU Early Warning System (EWS) by infusing it with several elements from the NATO Intelligence Warning System (NIWS): the inclusion of warning problems in the process, institutionalized burden-sharing, and the combination of a long-term and short-term focus. In addition, they could enhance EU cooperation on countering hybrid threats with regularly updated threat assessments and comprehensive situational awareness. The best way to do this would be by strengthening and enhancing the EU's Hybrid Fusion Cell's cooperation with both NATO's Hybrid Analysis

Branch and the Hybrid Centre of Excellence (CoE). Finally, they could use the platform of the Intelligence College Europe (ICE) as a forum for organizing panels, seminars, and discussions to promote intelligence cooperation in the field of early warning and the development of a common culture among European intelligence experts.

Abroad, there are a couple of things EU member states could do to boost their ability to work with like-minded member states in the area of intelligence cooperation. They could leverage the interests and values they share with Japan to develop an agenda for further collaboration, using the framework of the Strategic Partnership Agreement as a starting point. In addition, they would do well to make intelligence cooperation with the UK a priority. More specifically, they could build on common experiences in countering illegal narcotics trafficking within the framework of the Joint Interagency Task Force-South (JIATFS). This would entail infusing the Maritime Analysis and Operations Centre – Narcotics (MAOC-N) with best practices from JIATFS. It would also mean keeping a post-Brexit UK involved as a key participant in MAOC-N, even though it is no longer part of the Union funding the center.

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**Intelligence cooperation in the field of early warning could help the EU better respond to external conflicts and crises, support the protection of the Union and its citizens, and advance the development of a common European intelligence culture**

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# 4. Shifting Sands of Strategic Stability

## 4.1. Geopolitics, Emerging Technologies, and Arms Control

The 1980s and 1990s were an apogee in terms of the normative and legal institutionalization of arms control and non-proliferation regimes. This included the Intermediate-Range Nuclear Forces (INF) Treaty, the Strategic Arms Reductions Treaty (START) and the Strategic Offensive Reductions Treaty (SORT), the Missile Technology Control Regime (MTCR), the Open Skies Treaty (OST), the Vienna Document (VD), the Wassenaar Arrangement, and the Conventional Armed Forces in Europe (CFE) Treaty.

The durability of arms control and non-proliferation efforts encapsulated in these regimes is now under pressure. Geopolitical and military-technological developments are drastically undermining strategic stability and the basis for existing arms control arrangements. The means, motives, and opportunities for competitive advantages for most of the nuclear-armed states have changed, with two factors playing a crucial role. First, the means to achieve a competitive advantage have increased, as new military technologies, such as artificial intelligence and autonomous systems, amplify the potential of existing missile technologies. Both offensive and defensive systems are incorporating these advances to bypass dependency on slower human responses.

In combination with the evolution of missile technology in the form of hypersonic cruise missiles and glide vehicles, the decision-making windows for policymakers are shrinking.

Second, the opportunities to pursue a competitive advantage have grown and European policymakers will need to deal with the implications of emerging nuclear and conventional precision-strike multipolarity. The emergence of China as a challenger to US power in Asia, alongside a resurgent Russia, has created a triangular dynamic with consequences for deterrence within Europe as well as for arms control. In part, Russia relies on its large and varied arsenal of nuclear weapons to compensate for its declining status. Moreover, Russian military strategy includes plans to use this arsenal for leverage in certain scenarios pertaining to northeastern Europe. Simultaneously, the intensifying Sino-American competition has spurred China to innovate a series of conventional missile capabilities designed to raise the costs for US power projection in the Western Pacific.

As China's missile technology develops, it is likely that smaller and medium powers will seek to acquire their own conventional precision-strike capabilities. While these states long had the motive, they now have the opportunity to act. In a multipolar world, they will be able to purchase such capabilities from China and Russia or emulate their successes through indigenous efforts.

*Box 1: Characteristics of Emerging Tech Along the Production-Proliferation-Deployment-Employment Chain*

1. **Production:** material inputs, infrastructure, expertise and skills, testing core technology
  - a. Are material inputs (raw materials, metals, etc.) accessible (in each country, or is there a broad global market) and affordable? Can material inputs be easily produced domestically?
  - b. Can the technology only be produced based on a discrete specialized knowledge base? How widespread is that discrete specialized knowledge base to produce and deploy the new military technology? How effectively can knowledge of the innovation works be shielded from potential adversaries or other states? What are the prospects for future diffusion of technological knowhow?
  - c. Can the state weaponize the technology and test it in a relevant environment?
2. **Proliferation:** dual-use nature, tangibility, distinguishability
  - a. Do commercial applications exist? Can they be modified for military use?
  - b. How tangible is the technology? Can it be moved (in terms of size etc.) and can it be detected during transport?
  - c. How distinguishable is the technology from other military technologies?
3. **Deployment:** infrastructure, platform requirements, deployment skills
  - a. What infrastructure is needed to deploy the technology (including access to location)? (e.g. UAV runways)
  - b. What other, prerequisite weapon platforms/systems or enablers are needed to effectively deploy the technology (example: C4ISR for missiles, but also launchers or transport helicopters)? Or can existing technologies be easily updated?
  - c. Does the deployment of this technology require highly advanced technical knowledge?
4. **Employment:** organization, doctrine, norms
  - a. Does the technology's implementation require significant organisational changes, including changes in the relative importance of the services, in organisational incentives, recruitment and training?
  - b. Does its use require changes in war-fighting doctrine?
  - c. Are there other features of the military technology that would disincentivize states to employ these weapons (e.g., norms regarding indiscriminate use towards civilians)?

Non-proliferation, arms control, and deterrence are some of the means states have at their disposal to contain and prevent the production, the proliferation, the deployment, and the employment (PPDE) of weapon technologies that threaten strategic stability. Against the backdrop of a geopolitical and technological environment that has drastically evolved over the past quarter century, this report looks at the entire spectrum to develop solutions for a new generation of durable arrangements. Rather than focusing on one weapon technology or arms control regime, it introduces a new analytical framework that assesses the feasibility of policy measures to control weapon technologies along the PPDE-chain (see Box 1).

Applying this framework to ten emerging technologies, the report identifies specific policy measures to curtail the risks associated with each of them. Considering these policy measures within the evolving geopolitical context that has reshaped the incentives for pursuing various nuclear and non-nuclear technologies, the report offers a set of policy recommendations to policymakers to bolster strategic stability. These recommendations are designed to help the Netherlands and the EU defend and deter potential adversaries by serving as a blueprint for a broader integrated arms control agenda and to facilitate careful consideration of the appropriate balance of policy mixes along the PPDE-chain.

## 4.2. Implications for the Netherlands and for Europe

For the most part, Europe occupies a secondary role in the the interplay between the trilateral US-Russian-Chinese nuclear relationship and other smaller, regional relationships (see Figure 5). However, European states could make a significant contribution to reducing the conventional imbalance between NATO Europe and Russia. The conventional imbalance in NATO's Northeast adds escalatory pressure to the United States to fill the deterrence gaps in the escalation ladder through greater flexibility in its nuclear arsenal and investments in advanced conventional weapons. In combination with a comprehensive effort to contain and curb proliferation of nuclear weapons, as well as critical delivery vehicles, conventional deterrence could offer an avenue to keep a lid on the Pandora's Box of re-nuclearisation of European security by the US, Russia, or others in the 2021-2035 period. Similar to the success of Cold War arms control and non-proliferation efforts, acquiring such capabilities would also improve the negotiation position of European states to pursue new agreements with Russia. The report delineates several conventional imbalances that states sought to offset through nuclear weapons, and vice versa, in every region.

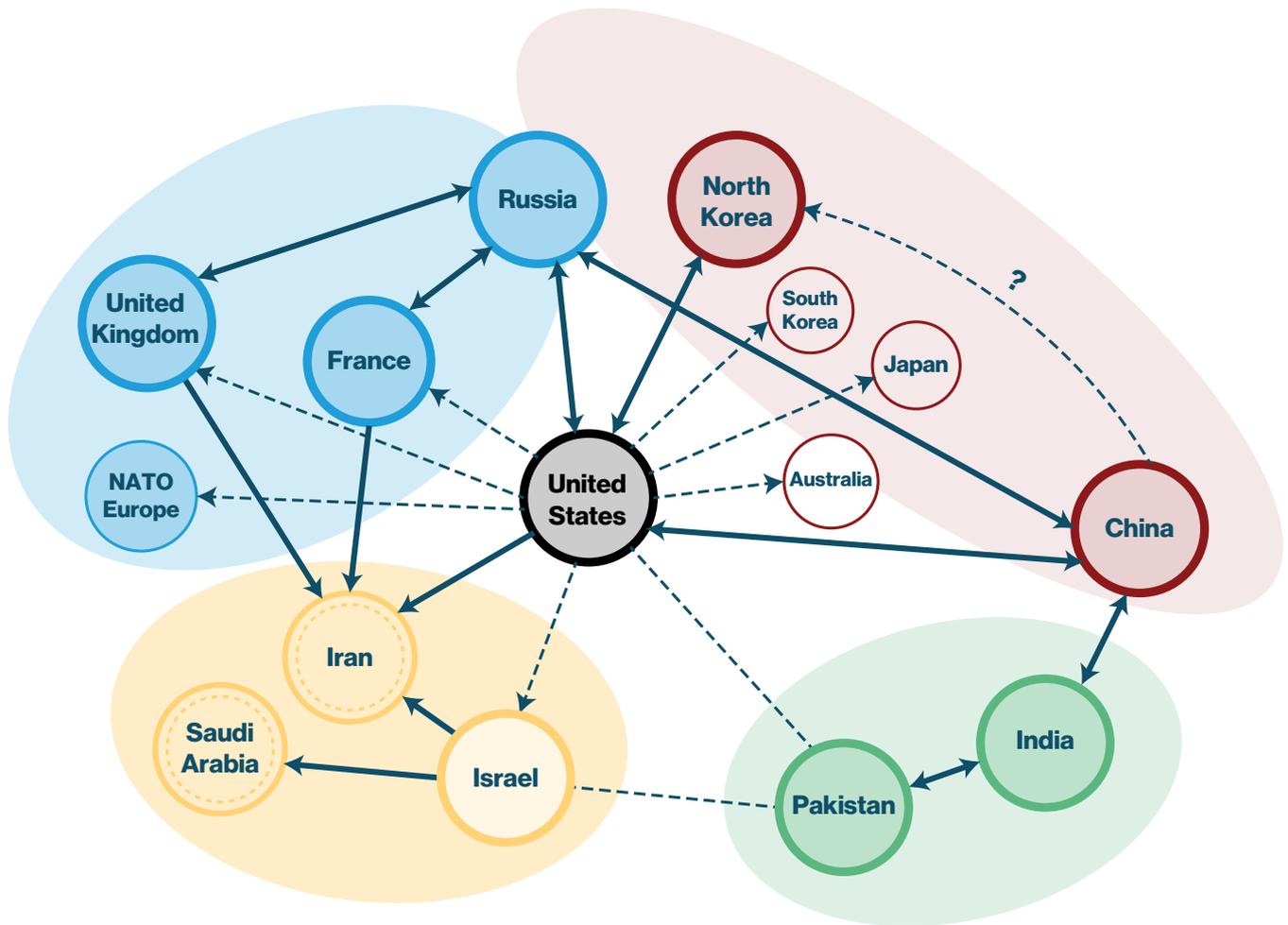
The US status as guarantor of extended deterrence to its allies in Europe, Asia, and the Middle East

further complicates matters. As an extra-regional hegemon, the US has always had to make greater efforts to maintain credibility in each region. It has done so by building nuclear and conventional capabilities that give it greater flexibility; its first-use policy is a consequence of its extended deterrence policy. While seemingly counterintuitive and an unconventional avenue for arms control, European improvements to their conventional deterrence by denial postures would increase the costs and lower the benefits of aggression for Russia and thereby reduce pressure on the US. The advantage of this would be that NATO's deterrence would be less dependent on a United States that finds it increasingly difficult to maintain its multi-regional commitments. The alternative would be a re-nuclearisation of the European theatre.

In addition, emerging technologies lend themselves to a wide variety of non-proliferation, arms control and deterrence measures along the PPDE chain (see Table 2). The toolbox to limit or control the production, proliferation, deployment, and use of new technologies is based on time-tested methods and complemented by newer ones. Previously, the focus was on arsenal size reduction and traditional quantitative arms control measures (INF, START, ABM).

However, these measures have become less relevant for newer technologies. This is partly political: multipolarity lends itself for various reasons less to a quantity-based approach because different geopolitical dynamics necessitate different arms control solutions. But the intangible nature of several of

Figure 6: Interacting Nuclear Dyads and Strategic Relationships



**Legend**

- |  |  |   |
|--|--|---|
| <p>X <math>\longleftrightarrow</math> Z<br/>X &amp; Z deter each other</p> <p>X <math>\longrightarrow</math> Z<br/>Deters</p> <p>X <math>\dashrightarrow</math> Z<br/>Extends deterrence to</p> <p>X <math>\cdots\cdots\cdots</math> Z<br/>Has a tense relationship with</p> | <p> Nuclear power</p> <p> Potential proliferator</p> <p> State(s) that benefits from extended deterrence</p> | <p> Europe</p> <p> South Asia</p> <p> East Asia</p> <p> Middle East</p> <p> United States</p> |
|--|--|---|



## EU member states should boost their ability to defend and deter potential adversaries by making improvements to their conventional deterrence by denial postures and, in the process, addressing the conventional imbalance between NATO Europe and Russia



the emerging technologies makes capping deployment also technically complex, if not impossible. Verification is problematic, both politically and technically. This is not only the case for largely intangible technologies, such as cyber, but also for anti-satellite

weapons. At the same time, for some of these technologies, most notably AI and LAWS, the deployment phase does lend itself to novel measures aimed at reducing risks and ensuring compliance with legal, ethical and operational guidelines.

Table 2: Assessments for all Weapon Technologies and Stages<sup>3</sup>

	Production	Proliferation	Deployment	Employment
Hypersonic weapons	Low	Low	Medium	High
ASATs	Low	Medium	Medium	Low
DEWs	Low	Medium	Low	Low
Dual-capable C3I	High	Medium	High	Medium
Dual-capable missiles	High	Medium	Medium	Medium
Missile defense	Low	Low	Low	High
Cyber	Low	High	Low	Low
AI	Low	Medium	Medium	Low
LAWS	Low	Medium	Medium	Low
Remote sensing	Medium	Medium	Medium	High

<sup>3</sup> Guide to weapon technology acronyms: ASATs are anti-satellite weapons; DEWs are directed energy weapons; C3I refers to command, control, communications, and intelligence; AI means artificial intelligence; and LAWS are lethal autonomous weapons systems.

### 4.3. Solutions: Policies and Partners

If the Netherlands and other EU member states are going to hang together in the area of arms control, they will need to embrace fresh thinking on the subject. The EU has established expertise in the provision of technical and financial assistance to support the implementation of treaties and the work of international agencies, but more is needed.<sup>4</sup> Hence, they would do well to consider action in the following three areas.

First, EU member states should boost their ability to defend and deter potential adversaries by making improvements to their conventional deterrence by denial postures and, in the process, addressing the conventional imbalance between NATO Europe and Russia. This would increase the costs and lower the benefits of aggression for Russia and thereby diminish the pressure on the United States. This would also benefit the EU by making it less reliant on a US that will increasingly prioritize the Indo-Pacific in security matters. It would have the added benefit of rebalancing the transatlantic security burden and thereby removing a bone of contention in US-EU relations.

Second, it would be prudent for EU member states to make full use of emerging technologies. These technologies lend themselves to a wide variety of non-proliferation, arms control, and deterrence measures along the PPDE chain. The toolbox to limit

or control the production, proliferation, deployment, and use of new technologies should be based on a combination of traditional arms control methods complemented by newer ones.

Finally, the emphasis of arms control is shifting from controlling primary production inputs to limiting their military applicability and proliferation. The report recommends several objectives in this area. Traditional export control regimes are under strain, but still relevant. Constantly reviewing and revising specific and tailored export lists is key. Involving the private sector in creating and evaluating export regulations is key to ensure support and ease of implementation. The proliferation of knowledge and expertise can be countered by contractual obligations. Traditional measures such as pre-launch notifications for tests or stricter regulation for testing could help curb the production of tangible, more traditional technologies such as hypersonic weapons, ASATs, DEWs and missile defense.

It would also be advisable to pursue risk mitigation through technical and political means. Cross-checking is crucial when dealing with automation; relevant confidence-building measures include hotlines, technical cross-verification measures, and optimal situational awareness capabilities. Unilateral declaratory statements may further enhance trust. Setting norms and rules would help with regulating the production, deployment, and use of technologies. Last but not least, deterrence is likely to be more cross domain in nature than in the past, which will require robust, integrated deterrence postures.

<sup>4</sup> Claire Portela, 'The EU's Arms Control Challenge: Bridging Nuclear Divides' (European Union Institute for Security Studies, 28 April 2021), <https://www.iss.europa.eu/content/eu%E2%80%99s-arms-control-challenge>.

# 5. Identity, Industry, and Interoperability

## 5.1. European Armaments Collaboration

In order to achieve a viable and effective degree of strategic autonomy, the European Union will need to boost its military capabilities. This cannot be accomplished simply by convincing EU member states to increase defense expenditures – they will also need to address the lack of interoperability in weapons systems and inefficiency in defense investments. In order to reduce its dependence on the US security guarantee, Europe will need to do a better job of supplying its armed forces with modern weaponry. There are three options for arming European militaries: off-the-shelf purchases of existing weapons systems from foreign suppliers, usually the United States; licensed production of weapons and weapon systems by national defense industries; and collaboration with other European states to co-develop, produce, and acquire weapons systems. In light of the US pivot to the Indo-Pacific and the likelihood that it will be less willing to provide for EU security in the coming years, Europeans would prefer not to rely on the first option. The second option is also not viable, because individual member states lack the research and development budgets and the scale of economies to be truly autarkic.

This means that increasing cooperation in the production and arming of their armed forces will be crucial if EU member states are going to successfully

hang together. In order to boost their ability to deter and defend against potential adversaries, they will need to increase spending and find ways to work more effectively with each other and with a post-Brexit UK. Accordingly, this report offers recommendations for specific collaborative armaments programs which the Netherlands should consider joining.

The behavior of other great powers would seem to suggest that collaboration between states to develop and manufacture arms is difficult. The United States, China, and Russia are reluctant to utilize foreign military hardware or to partake in collaborative armaments projects. However, the experience of European states such as France, Germany and the UK suggests otherwise. The aerospace sector is a case in point. Since the 1960s, this area has seen numerous collaborative European ventures, including patrol, trainer and transport planes, combat jets, helicopters, and missiles.

More recently, this collaborative approach has spread. In the naval domain, collaboration initially entailed one country adopting either the hull form or sub-systems of another navy. In the 1980's, the tripartite minehunter class was commissioned in France, Belgium, and the Netherlands. This was followed by extensive collaboration between France, Italy and, to a lesser extent, UK in the advanced warship domain. Similar endeavors in Germany and the Netherlands, often centering on electronics such as sensors, computers, and communications systems, occurred as well.

Table 3: Top Ten Defense Industries in Europe (US\$ x 1,000,000)

Company	Defense Revenue	Total Revenue	Percentage	World Ranking
1. BAE Systems	\$21,033.27	\$23,370.30	90%	7
2. Airbus	\$11,266.57	\$78,916.36	14%	12
3. Leonardo	\$11,109.27	\$15,429.55	72%	13
4. Thales	\$9,251.68	\$20,596.61	45%	16
5. Dassault	\$5,708.84	\$8,171.48	70%	22
6. Rolls Royce	\$4,260.53	\$4,260.53	24%	27
7. Safran	\$4,413.05	\$27,581.55	16%	28
8. Naval Group	\$4,155.14	\$4,155.14	100%	30
9. Rheinmetall AG	\$3,942.46	\$7,001.73	56%	33
10. Babcock Int.	\$3,233.92	\$6,220.17	52%	39

National projects remained dominant in the land domain well into the 1990s, although the armored fighting vehicle segment launched several cross-national programs after domestic companies in some smaller EU member states were acquired by larger competitors. With the proposed Franco-German main battle tank program and related KMW-Nexter industrial merger, a more cooperative pattern is likely in the pipeline.

Certainly, major obstacles persist. To a considerable extent, these problems stem from the fragmentation of the European defense market. EU member states buy most of their equipment domestically. Major weapons systems such as tanks, frigates, and fighters are being produced by relatively few European companies and bought by a small number of European customers, leading to significant inefficiencies.

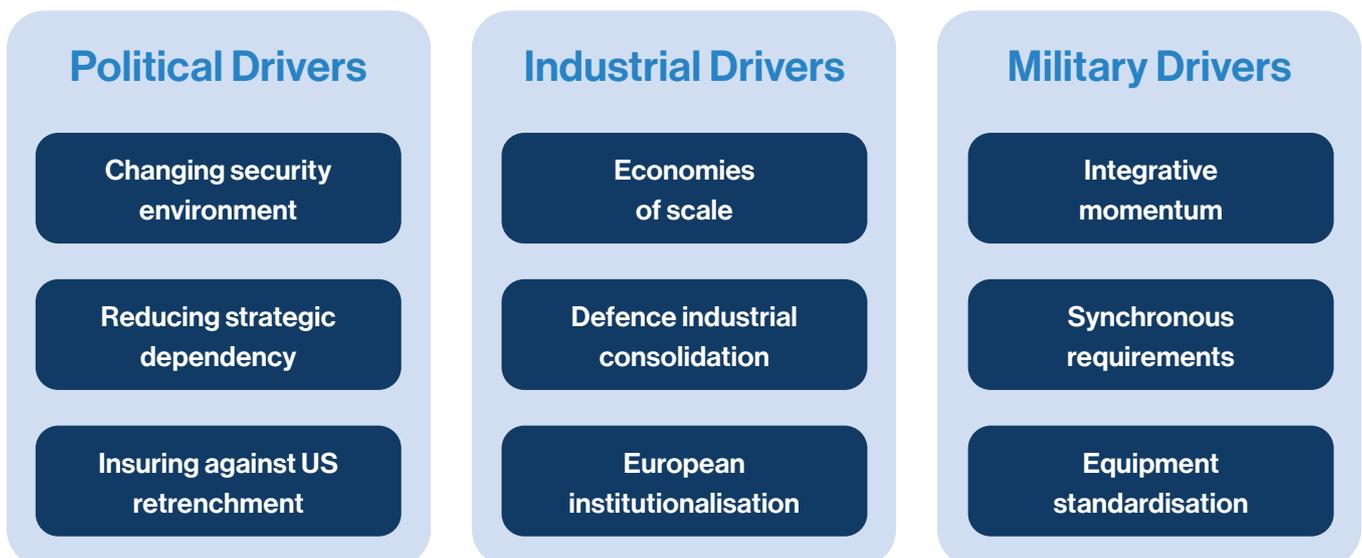
Yet there is potential to create a healthier and more efficient defense market. The European defense industrial sector is substantial, generating an annual turnover of approximately €116 billion and employing over 400,000 highly skilled workers. The aeronautics sector accounts for 41% of total revenue, followed by the land (36%) and naval sectors (23%). There is variety in the business models among the ten largest European defense companies – see Table 3 – based on revenue. Some cater primarily to the defense market, while others rely on defense customers for only a small part of the business. One challenge that will need to be addressed is the fact that several of the European defense industry's biggest players have their main footprint in the UK, with some subsidiaries located in the EU. This could complicate the goal of increasing European defense cooperation when it comes to crafting policies and regulations for a post-Brexit UK.

## 5.2. Implications for the Netherlands and for Europe

The motivation for any single European collaborative armaments project is complex and multi-dimensional. The dynamics differ from one sector to another, and contemporary issues impact individual programs. That said, in general, three factors lead to collaboration in the European armaments market: political, industrial, and military drivers (see Figure 6). These factors should be considered holistically.

Political drivers of European armaments collaboration include the evolution of the external security environment in ways that are generally perceived to be disadvantageous for the Netherlands and for Europe. A crucial aspect of this changing landscape is the relationship with the United States. As US strategy and behavior shifts in response to both internal economic and political challenges as well as to compete with China more effectively, the EU is seeking to reduce its strategic dependency on the United States and to be able to provide more for its own security.

Figure 7: The Factors Driving European Armaments Collaboration



These political factors influence, in turn, the industrial drivers of armaments collaboration. They make EU member states more inclined to purchase European as opposed to US-supplied weapons systems. An additional factor is the declining economic viability of an exclusively national approach to the generation of advanced military capabilities. This includes economies of scale, cross-border industrial consolidation, and the institutional deepening of European armaments collaboration via the creation of instruments such as the European Defence Fund (EDF).

European armaments collaboration is also a product of European-level military policy initiatives that necessitate a high degree of equipment commonality and interoperability. Furthermore, symmetry in requirements and the timing of acquisition of military equipment have a critical impact on the possibility for collaboration.

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**As US strategy and behavior shifts in response to both internal economic and political challenges as well as to compete with China more effectively, the EU is seeking to reduce its strategic dependency on the United States and to be able to provide more for its own security.**

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## 5.3. Solutions: Policies and Partners

One of the most important ways that the Netherlands and other EU member states can contribute to the success of strategic autonomy is by improving cooperation in armaments production, as this will improve their ability to deter and defend against potential adversaries. It is the very definition of hanging together.

In Europe, new main battle tanks, integrated air and missile defenses, a new generation of combat jets, stealth combat drones, long-range surveillance drones, helicopters, and maritime patrol aircraft are among the most salient big-ticket armaments items.<sup>5</sup> Taking into account European capability needs as defined in the capability development plan and related documents, the characteristics and areas of excellence of the Dutch defense industry, as well as the future operational requirements of the Netherlands armed forces, the following European collaborative armaments programs should be considered for Dutch participation (see Figure 8).

First, the Future Combat Air System (FCAS) is a Franco-German-Spanish program for both future manned combat aircraft and unmanned aerial systems. The knowledge and industrial capacities

in the Dutch aerospace sector offer potential to contribute to areas such as aircraft components, sensor systems, information-processing systems, and communications systems. The Royal Netherlands Air Force has no need for a next generation combat aircraft, as the F-35A will fulfil its requirements until the middle of the 21<sup>st</sup> century. However, participating in the development of unmanned aerial systems would serve Dutch interests to collaborate with the larger European countries in view of standardization and improving interoperability.

Second, the Main Ground Combat System (MGCS) is a Franco-German program for replacing both the Leopard 2 and Leclerc main battle tanks. It is a multiplatform concept that may involve both manned and unmanned ground vehicles. Italy, Spain, and the UK have already expressed interest in joining MGCS. The Dutch defense industry has relevant capabilities in this particular sector, such as communications systems, sensors and simulation equipment, protection materials and digital/IT systems. The Dutch land forces already work closely together with their German counterpart and the 414th German tank battalion has a fully integrated Dutch tank company, operating the same Leopard 2. From that perspective, for the Royal Netherlands Army MGCS – as well as the development of the future generation of armored vehicles – is of high interest to guarantee future interoperability with the Federal German Army.

<sup>5</sup> Paul van Hooft and Lotje Boswinkel, 'Surviving the Deadly Skies: Integrated Air and Missile Defence 2021-2035' (HCSS, 1 December 2021), <https://hcss.nl/report/surviving-the-deadly-skies/>.

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Third, the Next Generation Rotorcraft Capability (NGRC). This is a Franco-German-Italian-British medium lift helicopter program intended to replace the current generation of helicopters for European NATO countries. The Dutch aerospace industrial capacities make the Netherlands a candidate for participation in NGRC. Currently, the Dutch Air Force

has the Cougar available as a medium-sized helicopter, while the Navy operates the similar-sized NH90. Assuming that the requirements for replacement helicopters are to be brought inline, NGRC should fulfil this need, while at the same time standardizing with European partners on the same type of medium lift helicopter.

*Figure 8: The Three European Collaborative Armaments Programs*



# 6. Climate Security in Global Hotspots

## 6.1. The Netherlands and Climate Policy

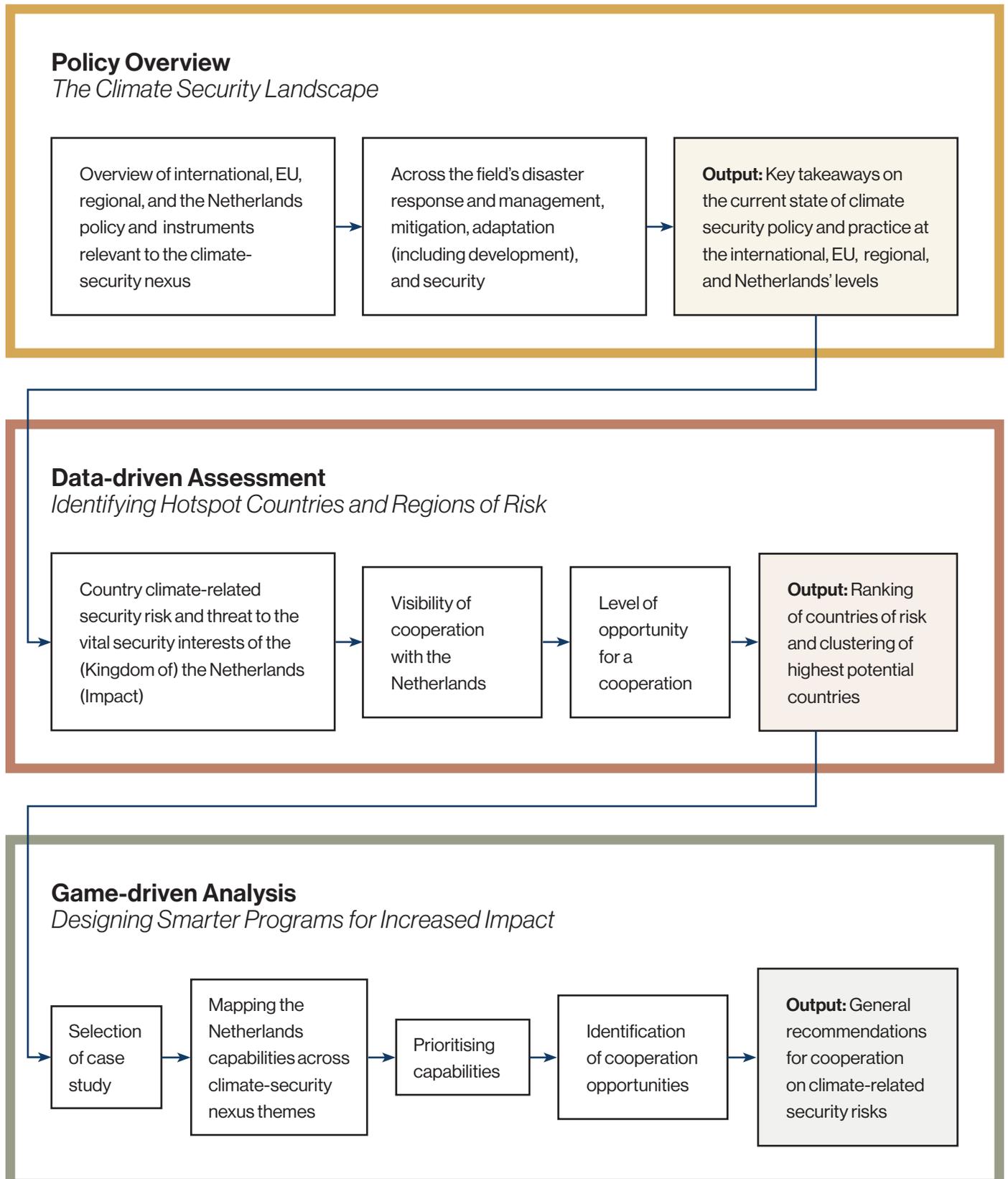
The advent of the global climate crisis has had far-reaching implications for the international security landscape. Climate change can play a role in the onset of social unrest, political disputes, and violent conflicts. Hence, the concept of climate security refers to interactions between changes in climate patterns and political, military, economic, and social risks or stresses to peace, security, and stability. This means that efforts to respond, mitigate, and adapt to climate change should take security concerns into account. Experts agree that combating climate-related security challenges requires an integrated approach by a diverse group of actors that can address various aspects of the climate security nexus, including (international) diplomacy, development, defense, and disaster management.

In 2018, the Dutch parliament formally acknowledged that better integrating Dutch climate, development, and security policies would help combat the

underlying causes of instability in at-risk countries and – indirectly – the impacts of broader instability on Dutch national security. A memorandum generated by the parliament, “Investing in Global Prospects,” recommended that more intensive efforts should be made to apply Dutch-funded climate adaptation programs and conflict prevention activities to at-risk countries. The Dutch government also committed to consider climate resilience and conflict sensitivity in both Dutch development cooperation policy and security policy.

This report offers recommendations to help the Netherlands and EU establish norms and rules on climate and security that should help foster an international environment conducive to European interests and values. It consists of three parts. First, it develops an overview of existing international, EU, regional, and Dutch policy, and instruments. Second, it utilizes a data-driven assessment to identify hotspot countries of risk. Finally, it designs a policy game to explore concrete programming and cooperation opportunities for the Netherlands that can be adapted to fit different contexts. This three-step approach is summarized in Figure 9.

Figure 9: Three-Step Approach to the Report



## 6.2. Implications for the Netherlands and for Europe

In spite of the initiatives undertaken by the Dutch government in recent years, several significant challenges remain. To begin with, there is still a lack of conceptual clarity on the definition of climate-related security. For the most part, documents do not explicitly outline the pathways by which climate change can affect security, such as poverty and injustice. Dutch ministries are not designed or equipped to tackle the full range of climate security-related challenges.

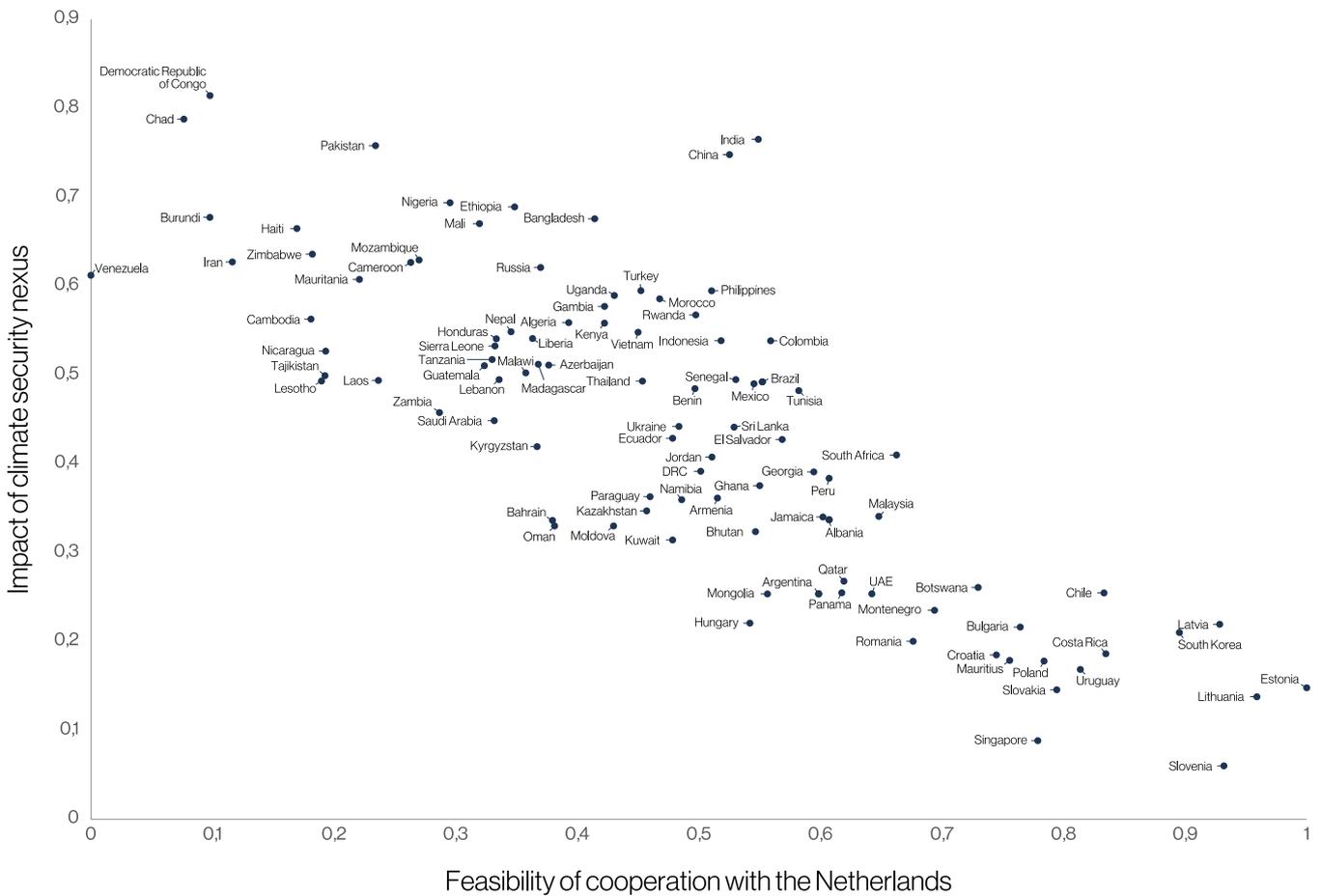
Another problem is that climate security-related efforts in different areas – including climate change mitigation, disaster risk reduction, adaptation, and sustainable development – tend to apply siloed approaches, whereby each applies different methods and funding and operates within separate communities of practice. Efforts to implement policies and to structurally integrate climate considerations into existing security practice have also fallen short.

Though there is considerable political support for climate security efforts, the international and European policy community has been more focused on achieving internal climate objectives than on integrating climate security into foreign policies and practices. For now, there is no consensus on what and how concrete measures can be enacted.

Until recently, the defense community has focused on relatively narrow climate-security objectives, such as greening its forces and strengthening disaster response. However, the defense community has begun to integrate climate security more systematically into its military operations. Dutch-funded development programs and defense missions do not fully account for climate-related security challenges. In particular, fragile states would benefit from a climate-proof approach, as climate-related shocks and extreme weather patterns will increasingly stress social and economic systems, worsening poverty and exacerbating conflicts.

Data-driven risk assessments and game-driven exercises are useful supporting tools to achieve national and international climate security objectives. Climate risk assessment methodologies provide an objective lens to identify countries or regions where the Netherlands should focus its resources. Game-driven foresight exercises facilitate the definition of existing and required capabilities to tackle climate-related security challenges. They also help with the identification of regional and international partners that could support the Netherlands in achieving additional impact. See, for instance, Figure 10 below, which was generated by data-driven risk assessment.

Figure 10: Potential for Cooperation with the Netherlands



Using the information gathered during the data-driven risk assessment, the report identifies seven country clusters of interest (see Figure 11). These clusters include the countries with the highest combined score on impact and feasibility, and sorted based on the additional criteria, including:

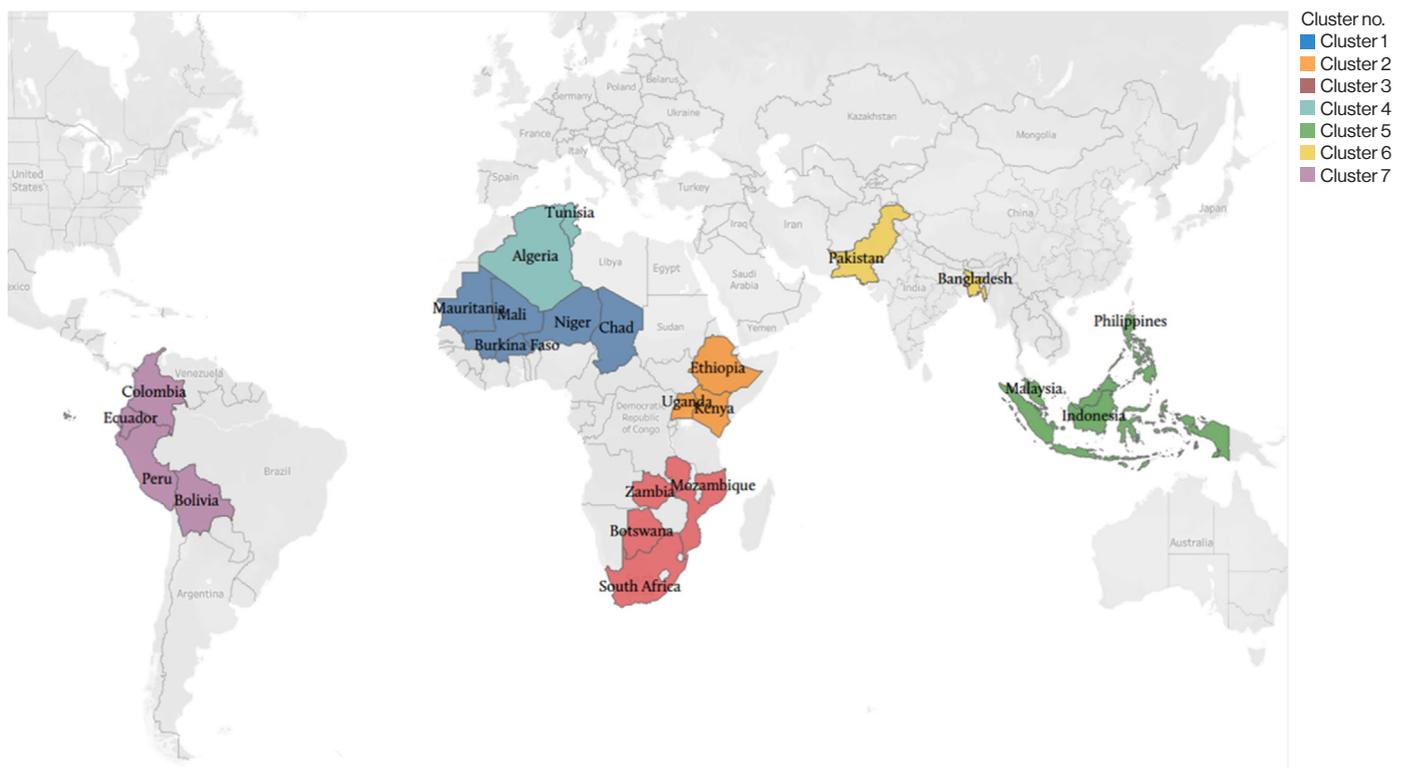
- specific climate hazards
- whether bordering countries are also at risk or could serve as a partner to mitigate the impact of climate-related security risks
- the Netherlands' expertise based on existing engagement with the country
- proximity to the (Kingdom of) the Netherlands



**In order to prevent climate change from becoming a security issue with cross-border implications requires supporting countries at elevated risk of climate insecurity**



Figure 11: Mapping of Country Clusters



## 6.3. Solutions: Policies and Partners

The impact of climate change on international security has been far-reaching. The Netherlands and other EU member states have been world leaders in this area, but there is still considerable work to be done if climate and security is to remain an area of strength. If the Netherlands and EU are to continue hanging together in the area of climate and security, they should consider action in three areas. These recommendations are intended to help the Netherlands and EU establish norms and rules on climate and security that should help foster an international environment conducive to European interests and values

First, there are several areas at the level of the Dutch state where more could be done. The Netherlands would do well to develop and strengthen a needs-based policy and programming approach by coupling data-driven climate security assessments with existing Dutch policies, programs, and capacities to determine immediate added value of (possible) Dutch intervention. It should also consider developing a comprehensive ecological security strategy that integrates the Dutch National Security Strategy, the Defense vision 2035, and Integral Migration Agenda with existing Dutch policy. Another useful step would be to develop additional inter-sector partnerships with business, civil society, and knowledge institutes to support Dutch capability development across

the climate security nexus focused on prevention, preparedness, and response. It would be helpful if the Netherlands were to foster coherence in policy, programs, and initiatives that touch upon the climate security nexus. The HCSS game-driven analysis framework could be used to link or integrate the programs being implemented under the current Theories of Change developed by the Directorate-General for International Cooperation (DGIS). Finally, this report recommends building on the best practice model developed by the Clingendael Institute in at-risk regions and explore opportunities for expanding the inventory in other thematic areas relevant to addressing the climate security nexus.

Second, at the EU level, there needs to be a collective response to be effective. This, in turn, requires that the EU develop a shared definition of the climate-security nexus and develop synergies. The Netherlands should seek to provide leadership in this area.

Third, at the global level, the Netherlands and EU would be prudent to do more to work with the countries most affected by climate change. In order to prevent climate change from becoming a security issue with cross-border implications requires supporting countries at elevated risk of climate insecurity in their ability to respond effectively and prevent climate change from becoming a security threat. In addition, preventing or minimizing the spill-over effects of climate change requires a joint climate security approach. Many states are already involved in regional initiatives – the Netherlands would do well to support them.

# 7. Conclusion

**M**uch like the thirteen American colonies in 1776, today the Netherlands and EU face enormous challenges in their pursuit of strategic autonomy. At home, they are beset by skepticism about the European project, nationalist and anti-democratic political forces, unresolved problems with the Eurozone – and even disagreements as to the very meaning of the term strategic autonomy.<sup>6</sup> Abroad, they confront the growing tendency of states to treat access to sensitive technologies as a zero-sum game, the increasing impact of emerging and disruptive technologies in every facet of international economics and security, a burgeoning climate crisis, and the militarization of international politics, especially amongst the great powers.

Just like the thirteen colonies, however, EU member states have at least one crucial element working in their favor – failure is not an option. If their revolution had fizzled, the American colonies would have found themselves at the mercy of the era's foremost great powers, Britain and France.<sup>7</sup> Similarly, EU member states have no option but to hang together in the quest for strategic autonomy. If they do not, the European project will falter, the EU will struggle to protect their economic interests, and individual member states will be vulnerable to the increasingly aggressive divide and rule tactics of other great powers. Simply put, if strategic autonomy fails, states such as the Netherlands will be poorer and less sovereign.

The good news is that, as this report underscores, progress has been made in some critical areas that contribute to European strategic autonomy. The EU has already installed some of the necessary infrastructure to combat techno-nationalism. It has also created several institutions intended to facilitate more extensive intelligence sharing between member states. The EU has well-developed expertise in the provision of technical and financial assistance to support the implementation of arms control treaties and the work of international agencies. EU member states also have extensive experience in collaborative armaments programs and have a number of such programs in the pipeline. Last but not least, the Netherlands and EU have become global leaders in understanding and acting upon the security implications of climate change.

Furthermore, these developments indicate a growing awareness among many policymakers that they need to do more to prepare member states and the EU to defend its interests and values in a turbulent world. There is also evidence that the publics in member states are beginning to see the need for a more robust and unified EU foreign and security policy – one that can withstand the vicissitudes of 21<sup>st</sup> century geopolitics – though the continuing power of anti-EU political parties remains an acute matter.<sup>8</sup>

<sup>6</sup> For a discussion about the different definitions, see Paul Verhagen, Esther Chavannes, and Frank Bekkers, 'Flow Security in the Information Age' (HCSS, 7 December 2020), <https://hcss.nl/report/flow-security-in-the-information-age/>.

<sup>7</sup> David C. Hendrickson, *Peace Pact* (University Press of Kansas, 2003), <https://kansaspess.ku.edu/978-0-7006-1493-1.html>.

<sup>8</sup> Claire Portela, 'The EU's Arms Control Challenge: Bridging Nuclear Divides' (European Union Institute for Security Studies, 28 April 2021), <https://www.iss.europa.eu/content/eu%E2%80%99s-arms-control-challenge>; Jon Henley and Jon Henley Europe correspondent, 'Support for Eurosceptic Parties Doubles in Two Decades across EU', *The Guardian*, 2 March 2020, <https://www.theguardian.com/world/2020/mar/02/support-for-eurosceptic-parties-doubles-two-decades-across-eu>.

However, this report also highlights some sobering news. It pinpoints three broad areas in which there is work to be done. First, more needs to be done to establish rules and norms in key areas of concern in order to be able to shape an international environment conducive to European interests and values. When it comes to the problem of techno-nationalism, the EU is not doing enough to protect the impressive outputs of its research and development ecosystem. The results are brain drain, the loss of R&D capabilities, and the transfer of technological know-how. In response, the report urges policymakers to take steps such as applying critical infrastructure protections to sensitive technologies, leveraging procurement to improve cybersecurity and counter-intelligence, using fairness principles to erect legitimate barriers to trade and procurement, bolstering competitiveness with a more holistic approach to the innovation ecosystem, and support EU-level initiatives on issues such as unfair competition, competition in third countries, the European Future Fund, and a European tech visa for attracting and retaining talented workers.

Climate and security is another area in which more needs to be done to establish rules and norms in key areas. There is still a lack of conceptual clarity on the definition of climate-related security and Dutch ministries are not organized or equipped to tackle the full range of climate security-related challenges. In addition, initiatives tend to apply siloed approaches, whereby different methods and funding are applied within separate communities of practice. Though there is considerable political support for intensified

efforts, the international and European policy community has been more focused on achieving internal climate objectives than on integrating climate security into foreign policies and practices. In response, the report suggests that the Netherlands develop: a needs-based policy and programming approach by coupling data-driven assessments with existing Dutch policies, programs, and capacities; a comprehensive ecological security strategy that integrates the Dutch National Security Strategy, the Defense vision 2035, and Integral Migration Agenda with existing Dutch policy; and additional inter-sector partnerships with business, civil society, and knowledge institutes.

Second, the Netherlands and EU could do more to protect EU member state economies and societies from external interference. This report focuses on the importance of bolstering intelligence cooperation amongst EU member states and with like-minded external partners to deal with threats such as the gray zone tactics increasingly utilized by other states, notably China and Russia, as well as challenges posed by non-state actors, such as narcotics trafficking. The report suggests action both within the EU and without. Policymakers could strengthen the EU Early Warning System (EWS) by infusing it with several elements from the NATO Intelligence Warning System (NIWS); they could enhance EU cooperation on countering hybrid threats with regularly updated threat assessments and comprehensive situational awareness; and they could use the Intelligence College Europe (ICE) as a forum for promoting intelligence cooperation and a common culture among

European intelligence experts. Abroad, EU member states could leverage the interests and values they share with Japan to develop an agenda for further collaboration, using the framework of the Strategic Partnership Agreement as a starting point. They could also make intelligence cooperation with the United Kingdom a priority. More specifically, they could imbue the Maritime Analysis and Operations Centre – Narcotics (MAOC-N) with best practices from Joint Interagency Task Force-South (JIATFS) and keep a post-Brexit UK involved as a key participant in MAOC-N.

Third, the report argues that only by boosting military strength and fostering closer military collaboration will the Netherlands be able to defend themselves against and deter potential adversaries. Boosting armaments collaboration amongst EU member states should be an area of focus in this respect, but the fragmentation of the European defense market is a major hurdle. EU member states buy most of their equipment domestically. Also, major weapons systems such as tanks, frigates, and fighters are produced by relatively few European companies and bought by a small number of European customers, leading to significant inefficiencies. To do its part in facilitating greater armaments collaboration, the report suggests that the Netherlands consider participating in three European programs: the Future Combat Air System (FCAS), for both future manned combat aircraft and unmanned aerial systems; the Main Ground Combat System (MGCS), intended to

replace both the Leopard 2 and Leclerc main battle tanks; and the Next Generation Rotorcraft Capability (NGRC), a medium lift helicopter program.

Another area where more can be done to defend and deter potential adversaries is, counterintuitively, arms control, specifically by boosting Europe's conventional deterrence. As an extra-regional hegemon, the United States has always had to make significant efforts to maintain credibility in Europe and other regions. It has done so, in part, by building nuclear capabilities that enhance its flexibility: for instance, its first-use policy is partly a consequence of its extended deterrence policy. European improvements to their conventional deterrence would increase the costs and lower the benefits of aggression for Russia and reduce pressure on the United States. Benefits of this would include making NATO's deterrence less dependent on a United States that is increasingly pre-occupied with the Indo-Pacific and improving the negotiating position of EU member states in future arms control talks with Russia. Most importantly, boosting conventional deterrence would reduce the likelihood of re-nuclearisation of the European theatre – a scenario that is no longer outside the realm of possibility.<sup>9</sup>

In the final analysis, achieving an effective and sustainable version of strategic autonomy – one that bolsters resilience to economic and security threats and enhances the EU's ability to act independently of other states in an unforgiving international landscape

<sup>9</sup> 'Rénucléarisation En Europe: L'OTAN Serre Les Rangs,' FOB - Forces Operations Blog, 4 January 2019, <https://www.forcesoperations.com/amp/re-nuclearisation-en-europe-lotan-resserre-les-rangs/>.

– is not the fool’s errand that some pessimists decry. However, it will be a slog that requires patience and political will – qualities not always widely available in the EU. This means that member states and the EU should emphasize two parallel areas in the coming years. They should continue the work of slowly but steadily expanding their capabilities in the coming years. They should also closely monitor political will, an area in which there has been glimmers of hope, but which will remain a pressing concern for the foreseeable future.

The degree of success that policymakers in the Netherlands and the rest of the EU enjoy in tackling these twin challenges likely will determine the outcome of the quest to achieve European strategic autonomy. Accordingly, they will form the basis for next year’s Strategic Monitor.

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**If strategic autonomy fails, states such as the Netherlands will be poorer and less sovereign**

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