

Solving Europe's Defense Dilemma

Overcoming the Challenges to European Defense Cooperation

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THE ISSUE

Russia's war of aggression in Ukraine has led to a transformational moment for European defense. However, Europe has a dilemma: it is spending more on defense but cooperating less—all despite three decades of political initiatives designed to improve European defense cooperation.

As this brief explains, there is no single reason for this failure: it is a result of a deep-seated collective action problem entrenched across the political, economic, and military fields of the European defense landscape.

This brief identifies three main insights for NATO, EU, and European policymakers to help solve Europe's defense dilemma:

- Understanding the challenge as a collective action problem reveals three principles that can help unlock European defense cooperation: small groups, normalization, and mechanisms to incentivize cooperation (and discourage fragmentation).
- Previous experience reveals internal and external factors that influence the prospects for cooperation.
- Many different types of defense cooperation may be used to provide European leaders with a range of options to boost collaboration.

THE SORRY STATE OF EUROPEAN DEFENSE COOPERATION

"In terms of defence spending, the positive trend seems to be accelerating, in line with announcements from the majority of pMS [participating member states]. It remains to be seen whether pMS will follow a coordinated approach which would ensure greater efficiency and interoperability of armed forces, and avoid further fragmentation."

—European Defence Agency (EDA), November 15, 2021

Russia's war of aggression in Ukraine has led to a transformational moment for European defense.

Together, European nations have committed to nothing less than a pan-continent *Zeitenwende*, providing unprecedented military assistance to Ukraine, drastically hiking defense spending, and reversing long-standing defense policies.² But the real test for European leaders is yet to come: Can they deliver lasting change in Europe's ability to defend itself?³

One important element of transforming European defense—and the focus of this paper—is the level of multinational cooperation in Europe. Increasing European defense cooperation promises political, economic, and military benefits for the nations involved.

As EU high representative Josep Borrell explains: “We could avoid competing for the same products, competing for the same things with a limited industrial capability. We may have greater bargaining power; we could ensure the interoperability of the armies.”⁴

Yet the benefits of European defense cooperation have proven elusive. Cooperation remains the exception, not the rule. The excerpt above from the European Union’s latest annual report on European defense spending captures the current European defense dilemma: Europe is spending more on defense but cooperating less.⁵ Or, as one headline bluntly summarized, “Record EU defence spending masks failure to collaborate.”⁶

According to EU data, both the total amount of cooperative spending and the number of cooperative initiatives have decreased significantly over the last decade.⁷ As of 2020, cooperative equipment spending fell to 11 percent of total defense spending, far short of the European Union’s target of 35 percent and the lowest figure since EDA records began in 2005.⁸ The same trend applies to cooperative research and development (R&D) spending, which was 6 percent of overall R&D investment in 2020, far below the EDA’s 20 percent target and another record low.⁹ Figure 1 shows these trends.

European defense cooperation is in a sorry state.¹⁰ Worse still, it is not for want of trying: several transformational efforts have failed to improve European defense cooperation since the end of the Cold War.

The initial transformation of European defense forces after 1989—through NATO and, from 1993, the European Union—fell short in Bosnia and Kosovo, where Europe relied heavily on the U.S. military. This led to further transformation efforts over the next decade, both through NATO and based on a new, dedicated European Security and Defense Policy (ESDP).¹¹ Several flagship NATO and EU initiatives focused on developing capabilities through cooperation and collaboration.¹²

However, operations over Libya in 2011 again revealed European shortfalls and continued reliance on the United States for strategic capabilities. Combined with the fallout from the 2008 global financial crisis, this led to another transformation attempt through two flagship cooperation initiatives: EU Pooling and Sharing, established at a 2010

EU Council meeting on defense,¹³ and NATO’s Smart Defence, launched at the 2012 Chicago summit.¹⁴

When Russia seized Crimea in 2014, European nations realized they needed to refocus on collective defense, committing to drastically increase spending at NATO’s 2014 Wales summit.¹⁵ This imperative—combined with the United Kingdom’s departure from the European Union—provided an opportunity to roll out several new initiatives to transform EU defense cooperation, including the European Defence Fund (EDF) and Permanent Structured Cooperation (PESCO) projects.¹⁶

The impact of three decades of political impetus and flagship initiatives on European defense cooperation is difficult to judge. While there have been several successful examples of defense cooperation—for example, in strategic lift and air-to-air refueling, a critical Libya shortfall¹⁷—and long lists of NATO and EU projects,¹⁸ there are too many examples where European cooperation did not emerge where it could have, such as in the naval sector.¹⁹

Ultimately, the EDA’s figures tell the story: cooperation within the European Union has markedly declined over the last decade, and the prospects are not good. This dilemma could not come at a worse time for Europe. Russia’s invasion of Ukraine requires stepping up defense on several counts: to continue supporting Ukraine, to bolster its own defenses to deter Russia from wider aggression, and to make up for the inevitable reduction in U.S. forward presence as American forces are required to deter an increasingly capable and belligerent China in the Indo-Pacific.

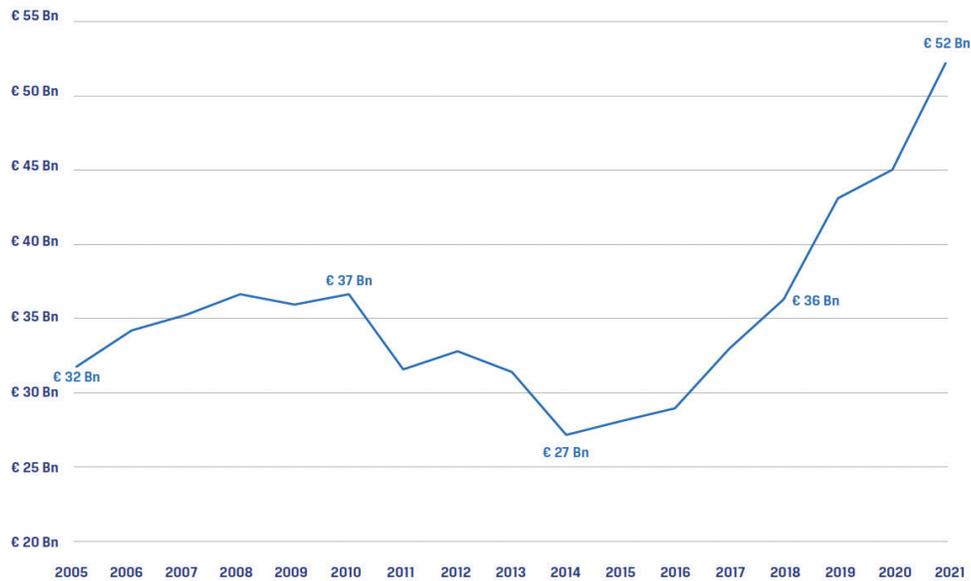
Yet while European defense spending has skyrocketed, most of it has gone toward urgent, off-the-shelf U.S. equipment, from ammunition to air defense.²⁰ Continuing with this policy will not address the fragmented and piecemeal nature of Europe’s defense industrial base and defense forces.²¹ As one analyst puts it, Europe is “missing its moment” to embed cooperation and fix its fragmentation problem.²²

In summary, Europe has a dilemma: it is spending more on defense but cooperating less. The track record of European defense cooperation invites two questions:

1. Why is European defense cooperation so difficult?
2. How can it be made easier?

Figure 1: Defense Investment and Collaborative Spending in European Defense
 EU members states' defense spending has increased while cooperative investment has decreased.

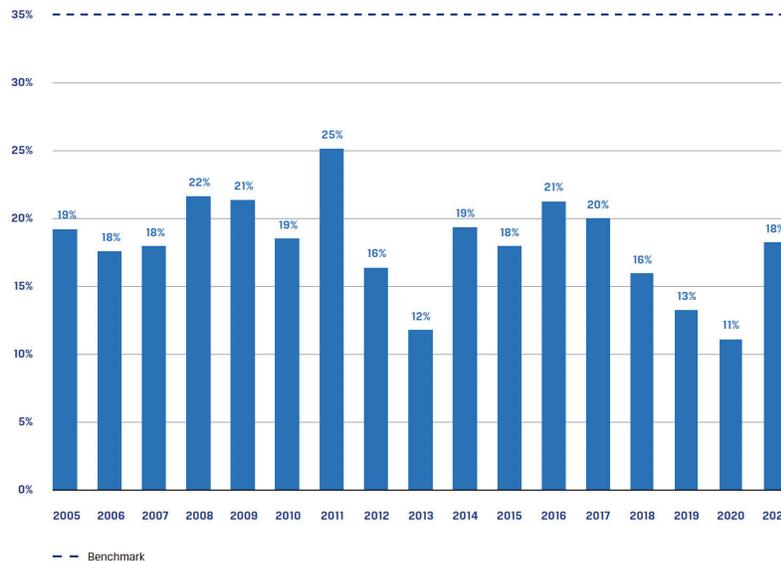
DEFENCE INVESTMENT EXPENDITURE (CONSTANT 2021 PRICES)



www.eda.europa.eu

Note: The term “Defence investment” as used by the EDA includes the procurement of defense equipment and research and development (R&D).
 Source: Reprinted with permission from the European Defence Agency, Defence Data 2020-2021: Key Findings and Analysis (Brussels: EDA, 2022), 7, <https://eda.europa.eu/publications-and-data/brochures/eda-defence-data-2020-2021>.

EUROPEAN COLLABORATIVE DEFENCE EQUIPMENT PROCUREMENT AS % OF TOTAL DEFENCE EQUIPMENT PROCUREMENT



www.eda.europa.eu

Note: Although collaborative spending appears to increase from 2020 (11%) to 2021 (18%), this is due to additional nations reporting on collaborative spending in 2021 who did not report in 2020. These nations are Finland, Germany, Poland and Sweden. For example, Germany’s collaborative defense equipment expenditure alone accounts for over a third of the total in 2021. Collaborative R&D spending follows the same trend and is also captured in the EDA’s Defence Data 2022 report.

Source: Reprinted with permission from the European Defence Agency, Defence Data 2020-2021: Key Findings and Analysis (Brussels: EDA, 2022), 16, 18, <https://eda.europa.eu/publications-and-data/brochures/eda-defence-data-2020-2021>.

This report addresses these questions in two parts. It first shows that challenges to European defense cooperation are rooted in a deep-seated collective action problem with political, economic, and military dimensions. It then uses insights from collective action theory to identify several principles for solving Europe’s defense cooperation problem.

THE COLLECTIVE ACTION PROBLEM IN EUROPEAN DEFENSE COOPERATION

“There is a great contrast between the co-operative way in which European countries fight wars, and the insular manner in which most prepare for them. . . . Yet in peacetime EU militaries revert to their national ways. . . . This is a very wasteful way to build armed forces.”

—Tomas Valasek, 2011²³

The basic challenge to European defense cooperation is known in economic and political theory as the collective action problem.²⁴ This problem arises in groups where actors would be better off cooperating but are discouraged from doing so by individual incentives that work against joint action.²⁵ The tragedy of the collective action problem is that all parties are worse off than they

would have been had they been able to overcome the barriers to cooperation. These challenges to European defense cooperation have three dimensions: political, economic, and military (figure 2).

POLITICAL CHALLENGES

Political factors are often judged the most important for success in defense cooperation. There are three basic political challenges to European defense cooperation: the strategic cacophony problem, the strategic fit problem, and the specialization dilemma.

The Strategic Cacophony Problem

The most significant challenge to defense cooperation is posed by sovereign imperatives that work against cooperation. In the European context, Hugo Meijer and Stephen G. Brooks have referred to this as the “strategic cacophony” problem, which they define as “profound, continent-wide divergences across all the domains of national defense policies, most notably threat perceptions.”²⁶ Their analysis suggests this problem is so deeply embedded that overcoming it “would require a long-term, sustained and coordinated effort.”²⁷ The practical results are described in the EDA’s 2022 CARD report: “Member States implement their [defense]

Figure 2: The Collective Action Problem in European Defense Cooperation



Source: Author’s analysis.

plans to a large extent nationally. . . . Key drivers remain primarily nationally defined requirements.”²⁸

For EU member states, political factors are a double-edged sword as they work in both directions: cacophony and integration. The political imperative to make the EU project succeed provides a powerful incentive to cooperate with fellow travelers. At the same time, national sovereignty works in the opposite direction and may prevent a natural ceiling to ever closer cooperation, though both effects vary in potency between member states.

A different dynamic is present in NATO, which has focused more pragmatically on coordination and interoperability over the years rather than on cooperation and integration as an end in itself. By one assessment, NATO is “the only institutional framework that has fostered some degree of coordination in Europe (at the strategic, doctrinal, and capability levels) and partly contained Europe’s strategic cacophony.”²⁹

The Strategic Fit Problem

The political factors that influence multinational defense cooperation include shared goals, strategic culture, geography, and history.³⁰ These boil down to the same problem: strategic fit. As one study on defense cooperation puts this:

In a [business] environment, a lack of ‘strategic fit’ may lead to the reluctance of one company to procure demand objects with its competitors. . . . In the context of [cooperative] purchasing in defence, the requirement for a ‘fit’ is more complex.³¹

These factors may include political and ethical issues about the use of force in certain situations or trust and reliance on other nations. Furthermore, “as trust and ethical alignment is not static, this results in a dynamic development of cooperation in defence.”³²

In practice, this makes defense cooperation politically demanding and doubly difficult: not only must the stars align for two or more nations to decide that defense cooperation is viable to begin with, but they must work to maintain their strategic fit in the face of resistance and changing circumstances.³³

The Specialization Dilemma

Specialization—focusing on one product or domain to enhance efficiency—is the bedrock of economic theory

and practice.³⁴ Yet this principle is less prevalent in defense and security, which as a public good is less amenable to market principles.³⁵

The strategic cacophony problem also limits the extent to which nations can give up capabilities (or rely on others to specialize for them), which creates the specialization dilemma: national capitals know specialization would bring benefits, but they cannot follow through. Worse still, nations often end up limiting or removing some aspect of their forces by default rather than design due to national political or industrial issues.³⁶

ECONOMIC CHALLENGES

All things being equal, defense cooperation should give European nations more bang for their euro. However, two main challenges have prevented the economic benefits of cooperation from being realized in practice: the fragmented nature of European defense and a defense spending bias toward short-term gains.

Fragmentation

The first part of the problem is fragmentation.³⁷ When it comes to European defense, all things are not equal. The European defense landscape and market are heterogenous and economically inefficient due to strategic cacophony, which fragments demand and supply by favoring national defense forces and defense industries. Where cooperation emerges, fragmentation also contributes to inefficient work share,³⁸ duplication of facilities, and multinational management structures that add friction and cost.³⁹

The result of fragmentation is incoherence and capability gaps. Europe’s military forces are not designed to fit together neatly like a jigsaw puzzle. A 2017 assessment showed EU militaries have 178 different types of weapon systems—148 more than the United States, despite having half the budget.⁴⁰ Several assessments have also revealed Europe’s high-end capability gaps in deterrence and defense.⁴¹

Efforts to date have seen little progress or promise to overcome fragmentation:

No improved coherence of the EU defence landscape has yet been observed. . . . It remains to be seen whether pMS will follow a coordinated

approach which would ensure greater efficiency and interoperability of armed forces, and avoid further fragmentation.⁴²

Short-Termism

Over the last decade, according to EDA figures, spending has gone up while cooperation has gone down.⁴³ This indicates European nations favor spending on national or off-the-shelf equipment from non-EU countries over cooperation—especially equipment made in the United States.⁴⁴

While this approach has short-term merit in addressing the immediate threat cost efficiently, it also exacerbates the fragmentation problem. As the EDA summarizes:

There is overall a strong prioritisation of off-the-shelf equipment procurement in most MS which could be further reinforced by the current security context. If off-the-shelf procurements are conducted in an uncoordinated manner, this could negatively impact the coherence of the EU defence landscape and curtail European cooperation in the future.⁴⁵

MILITARY CHALLENGES

The challenges of defense cooperation in the military and defense acquisition context are threefold: defense planning, joint procurement, and multinational operations.

Defense Planning Alignment

One implication of the strategic cacophony problem is that national military requirements and defense procurement cycles are rarely aligned, which makes cooperative solutions even more difficult. The sheer variety in the size, scale, and capabilities of national defense forces across Europe compounds the already invidious problem of multinational defense planning.⁴⁶

Defense planning alignment is the key to unlocking the deepest forms of cooperation.⁴⁷ The most significant multinational capability development projects—from the A400M transporter to the Eurofighter Typhoon—have occurred when several nations have prioritized the same requirements at the same time.

Joint Procurement

The increasing complexity of modern defense capabilities makes procurement in the national context highly challenging.⁴⁸ However, CSIS’s Greg Sanders and Andrew Hunter note, “While single-nation acquisition programs are hard, international joint acquisition is harder.”⁴⁹

There are three main challenges to joint procurement. The first is the added complexity of managing international actors, which requires multinational organizations and structures that introduce cost and friction.⁵⁰ The second is divergent national preferences regarding requirements, work share, and incentives for joint procurements, which are difficult to align.⁵¹ The third is the specificity dilemma. This arises because it is easier for nations to cooperate on low-specificity items that many of them could use (such as clothing, medical supplies, or small arms) rather than bespoke, high-specificity objects and systems (such as missiles, ships, and aircraft).⁵² Yet the gains from cooperation on high-specificity items far outweigh those in the low-specificity realm.⁵³

Multinational Operations

Modern military operations are also becoming increasingly complex and challenging as they integrate new technologies and doctrine, such as multidomain operations.⁵⁴ These challenges are multiplied in the context of multinational operations for two main reasons.

The first is command and control (C2) of multinational operations, which incur setup and running costs that can be prohibitive, as shown by the European Union’s experience with battle groups and operational headquarters.⁵⁵ In practice, multinational units also suffer from frictions related to language, strategic culture, sovereignty, and interoperability.⁵⁶

The second challenge to multinational military operations is the growing complexity of modern warfare.⁵⁷ The natural conservatism of military organizations poses a serious challenge for European military cooperation in particular, given the disparities in technology and capability among them and with key allies (e.g., the United States).⁵⁸

OVERCOMING THE CHALLENGES TO EUROPEAN DEFENSE COOPERATION

“If Europeans really . . . want to become a credible player in the international security arena, they must do and spend more together. And they must do it now.”

—Letter signed by 10 European defense experts, November 7, 2022⁵⁹

The previous section showed that the challenges to European defense cooperation are rooted in a deep-seated collective action problem with political, economic, and military dimensions. This section considers how to overcome those challenges and solve—or at least improve—Europe’s defense cooperation problem.

It proceeds in three parts. First, it identifies three principles for overcoming the cooperation challenges above. These principles are based on the theory of resolving collective action problems. Second, it identifies key factors for improving the prospects of cooperation. These factors are drawn from the literature on multinational cooperation. Third, it identifies several different types of cooperation—all of which can be used to expand the options for European defense.

KEY PRINCIPLES

PRINCIPLE 1: USE THE POWER OF SMALL GROUPS

Using the power of small groups may be the best way to enhance European defense cooperation and mitigate the political challenges in European defense.⁶⁰ Collective action problems are less prevalent in small groups where free riders cannot hide, members are more inclined to trust each other, identification and enforcement are easier, and group identity or solidarity may be stronger.⁶¹

The promise of small groups in European defense is not new, with several examples in NATO and the European Union (e.g., the Framework Nations Concept and PESCO).⁶² Several studies in recent years have highlighted the untapped potential of “country clusters,” “islands of cooperation,” “core groups,” and “differentiated cooperation” in European defense.⁶³ Moreover, bilateral relationships and small groups are already widespread, as “the essence of defense cooperation in Europe is a web of hundreds of bilateral and minilateral collaborations.”⁶⁴

However, the full power and potential of small groups to transform European defense cooperation has not been realized. Existing small groups either emerge ad hoc or are not designed with defense cooperation in mind.⁶⁵ Instead, small groups should become an organizing principle of European defense, taking advantage of the subregional dynamics that already exist across Europe.⁶⁶ Small groups also have the potential to specialize and exploit division-of-labor benefits within them.⁶⁷

To go further, previous studies have identified areas where new or existing small groups could address capability gaps or adopt a regional focus.⁶⁸ As small groups can form across a range of cooperation types (see Types of Defense Cooperation on page 12), existing groups such as the European Air Transport Command (EATC) or the Joint Expeditionary Force (JEF) could also build on the strategic fit they have established to expand cooperation into other areas (e.g., codevelopment or procurement).

PRINCIPLE 2: NORMALIZE COOPERATION

Another way to overcome collective action problems is to normalize desired behavior among groups.⁶⁹ Developing group norms, social solidarity, group identity, and reciprocity also encourages cooperation.⁷⁰

Treating cooperation as the default setting, rather than the exception, would mitigate many of the political, economic, and military obstacles to cooperation by aligning incentives and introducing a common strategic culture of cooperation. Cooperation can be normalized in European defense in three main ways: political prioritization, championing success, and leadership.⁷¹

Make Cooperation a Political Priority

First, European capitals and institutions should take every chance to make cooperation a political priority. The EU Versailles declaration in March and the raft of initiatives that followed are a good example, linking the need to embed cooperation in European defense with the continent’s response to war in Europe.⁷² As EDA chief executive Jiří Šedivý stated, “At EU level we must now work to shift the balance and make cooperation the norm.”⁷³

However, even with the winds of crisis in their sails, there is still a danger that “the EU’s new defense bureaucracy’s proposals remain just that.”⁷⁴ Brussels and EU capitals must maintain a laser-like focus on enhanced

cooperation as the means to address the worsening security environment—and an end in itself.⁷⁵

In contrast to the EU Strategic Compass and Versailles declaration, neither the June Madrid summit declaration nor the new NATO Strategic Concept mentions the need to enhance cooperation among members.⁷⁶ This also stands in contrast to NATO's first strategic concept in 1949, in which cooperation between allies was a central theme.⁷⁷

With the July Vilnius summit on the horizon—and a historic seventy-fifth anniversary summit in Washington in 2024—NATO has an opportunity to make cooperation its center of gravity once again by making it a clear political priority. One model for this is the 2014 Wales summit, at which allies agreed to the Defence Investment Pledge to spend at least 2 percent of their GDP on defense by 2024. A new cooperation pledge may provide the same political impetus and accountability that contributed to increased spending levels.⁷⁸

NATO allies should put as much emphasis on the need for European defense cooperation as they have on European defense spending. This shift could be significant for the United States given its diplomatic clout and its traditional wariness of European defense industrial cooperation.

Champion Success, Name and Shame Failure

Another strategy for normalizing cooperation in European defense is championing success stories while naming and shaming failure. With 18 projects and new members joining regularly, this approach to NATO's High Visibility Projects (HVPs) has seen some success.⁷⁹ However, there is a difference between new projects and those that have delivered results: the latter should be the focus of any high-visibility campaigns.⁸⁰ The success stories of European defense cooperation are not widely known, and in some cases the data do not exist.⁸¹

Publicly reporting on defense spending data can also change norms by encouraging good behavior and calling out bad. This makes nations more accountable to each other and their citizens. Both NATO and the European Union already do so annually, but their approach is limited in three ways.

First, the EDA's figures are anonymized in its annual defense data report, which undermines their utility to both champion success and name and shame failure.

Considering the attributed data can be accessed elsewhere on the EDA's website and that NATO already attributes much of the same data annually, this anachronism should be corrected to unlock the benefits of sharing performance data and enhance transparency.

Second, both the European Union and NATO should report accurately on cooperative spending. EU figures are misleading because only half of the member states report their data.⁸² NATO should adopt the same practice as the EDA and report on cooperative spending while maintaining attribution.

Third, both NATO and the European Union should be more creative when reporting on levels of cooperation: spending data are far from the only measure and may be misleading.⁸³ Other indicators would complement spending data and give a fuller picture, such as national cooperation policies, cooperative treaties, participation in multinational formations, equipment standardization levels, and NATO standardization agreement compliance.

Encourage Cooperation through Leadership

Leadership is important in overcoming collective action problems.⁸⁴ All groups have leaders who are willing to bear the costs for reasons of status, history, strategic culture, and so on. Leaders can encourage cooperation in two main ways: through demonstrative leadership or by removing the burdens of cooperation for others.

Demonstrative leadership requires nations to assume group leadership roles or lead by example. Exemplar behavior could be expanded or replicated. Examples of nations that have prioritized and implemented cooperation include the Franco-German brigade, German-Netherlands tank battalion, Belgian-Netherlands naval cooperation, Benelux joint air policing, UK-France Combined Joint Expeditionary Force (CJEF), and UK "international by design" policy.⁸⁵

In contrast to the European Union's PESCO projects, NATO's 18 HVPs do not have appointed leaders, only participants. NATO should appoint lead nations to realize the collective action benefits of leaders.⁸⁶ Leadership effects can also be exploited within international institutions. For example, NATO and the European Union could appoint senior officials charged with increasing cooperation levels, while a European Centre of Excellence for cooperation could share best practices among nations.⁸⁷

Leadership can also remove the burden of cooperation from others to encourage cooperation or mitigate perceived risks, such as Baltic air policing or support to Ukraine. Provision of security assurances can also encourage nations to cooperate,⁸⁸ while larger nations can help cover short-term gaps for smaller nations while cooperative solutions come to fruition.⁸⁹ This form of leadership also helps solve the specialization dilemma and could unlock the division of labor potential in European defense.⁹⁰

PRINCIPLE 3: INCENTIVIZE COOPERATION AND DISCOURAGE FRAGMENTATION

A third principle for overcoming the cooperation problem in European defense is to incentivize good behavior using carrots or deter bad behavior using sticks. These can be implemented by a central authority or by social mechanisms such as rules and norms.⁹¹ Carrots and sticks should be designed for two purposes: to consolidate either the fragmented supply or demand of European defense cooperation.

Consolidate Demand

Josep Borrell explains the need to consolidate demand: “We need a reliable production capacity. But a reliable production capacity in the field of defence requires also a reliable demand.”⁹² The main way to consolidate fragmented demand is through collective approaches to setting strategy and military requirements, such as through NATO and the European Union.⁹³ However, current cooperation levels suggest the existing approaches to demand consolidation are not meeting their potential.

These could be improved in two ways: setting multinational targets and using small groups to catalyze cooperation. First, defense planning capability targets are currently set on a default national basis by NATO and the European Union. This misses the opportunity to bake in consolidated demand from the outset and should be reversed: capability targets should be multinational by default and national by exception.⁹⁴ For NATO, these changes could be instigated at the forthcoming Vilnius summit in July.

Second, small groups may present an untapped resource for consolidating demand on a geographical or functional basis (see above).⁹⁵ To take advantage of this potential, small groups should be made a focal point for cooperation, both within NATO and the European Union and through their own forums.⁹⁶

Other avenues for demand consolidation include finding ways to incentivize the following:

- the long-term benefits of defense cooperation⁹⁷
- national specialization in specific capabilities or industrial expertise
- pooling and sharing to realize economies of scale⁹⁸
- improvements in interoperability and standardization⁹⁹

Consolidate Supply

There are three main ways to consolidate supply on the European defense market. The simplest is to reduce the institutional friction involved in cooperation to make multinational solutions more viable through dedicated structures for joint procurement or multinational formations.¹⁰⁰ The most demanding way to consolidate supply is to create a single market for defense equipment—an approach that is unlikely to become politically viable any time soon.¹⁰¹

A third way to consolidate the fragmented supply in European defense is to design structural incentives and regulation to reduce market inefficiency. Both the European Union and NATO have unique tools to generate such incentives.

As a political and economic union with financial and regulatory levers at its disposal, the European Union is uniquely positioned to incentivize cooperative supply in Europe. Given the “limited or even non-existent impact” of previous regulation intended to discourage national sourcing,¹⁰² the European Union in recent years has turned to economic incentives, including the EDF and other new and prospective initiatives.¹⁰³

However, given the state of European defense cooperation, the only question is whether these new incentives will be enough to overcome the powerful political incentives that work against cooperation. Several expert assessments suggest not.¹⁰⁴ A cursory look at the numbers supports their case.¹⁰⁵ But how much is enough? According to think tank experts Max Bergmann and Benjamin Haddad, as much as €100 billion in EU borrowing is needed to overcome the severe obstacles to cooperation.¹⁰⁶ This figure is around the same level as that already provided in emergency assistance for Ukraine.¹⁰⁷

NATO has two types of economic incentives to encourage cooperation among allies: joint funding and common

Figure 3: Endogenous and exogenous factors in European defense cooperation



Source: Author's analysis.

funding. Joint funding enables groups of allies to set up frameworks or agencies that NATO has political oversight over and runs on their behalf.¹⁰⁸ A recent example designed to incentivize R&D cooperation is the Defence Innovation Accelerator for the North Atlantic (DIANA), which is complemented by a €1 billion innovation fund.¹⁰⁹ As with the European Union's incentive schemes, the amount of funding is modest. Now that the model is established, NATO leaders should increase innovation funding at the Vilnius summit. The DIANA model could also be applied elsewhere, such as by incentivizing participation in HVPs, through a joint cooperation fund. The fund could also be designed with a bias toward initiatives that address European gaps with European solutions and could become a focal point for NATO-EU cooperation.¹¹⁰

The second economic tool NATO has for incentivizing cooperation is common funding, through which allies pool resources to provide alliance-wide goods.¹¹¹ Several in-service and capability development projects already prove the effectiveness of common funding to enable and encourage cooperation.¹¹² However, there is only one commonly funded HVP: the Multinational Multirole Tanker Transport project.¹¹³ This commonly funded, "cooperative by design" approach should become the default option for addressing common capability gaps identified by the NATO defense planning process.¹¹⁴ This would require a much larger common funding budget¹¹⁵ and extensive negotiation given the disparate views on

the matter. Nevertheless, it could be put on the table at Vilnius. In the meantime, allies could review which HVPs are candidates for common funding.

SUCCESS FACTORS

The previous section applied principles for solving collective action problems to help overcome the challenges of European defense cooperation. This section surveys lessons from the literature on past examples of cooperation to identify key factors for success. It is worth noting the issue of what makes European defense cooperation initiatives more or less likely to succeed has not been widely studied.¹¹⁶

These success factors may be divided into two types: endogenous (internally caused) and exogenous (externally caused). Both are summarized in figure 3.

ENDOGENOUS FACTORS

The following endogenous factors are divided into four core factors and three enabling factors.¹¹⁷ The core factors for successful defense cooperation are as follows:

- **Trust and solidarity.** Trust and solidarity are "the basis for success" but must be developed over time.¹¹⁸ The sovereignty barrier to cooperation is not insurmountable but does not give way easily.¹¹⁹ Practical measures can help generate both, such as the delegation of authority arrangements in the EATC,¹²⁰ the legal basis of the UK-France CJEF,¹²¹ and the JEF's

common policy directive and opt-in model.¹²² Building trust and confidence is easier with fewer nations participating, though the number of participants is related to the type of cooperation.¹²³

- **Shared strategic culture and like-mindedness.** Strategic culture, geography, and linguistic and cultural proximity have also been shown to play a part in emerging clusters of cooperation—for example, within PESCO.¹²⁴ Like-mindedness (shared conceptions, policies, and priorities) has played a role in several initiatives, including the JEF.¹²⁵ However, this factor is “important, not crucial” because nations who do not share strategic cultures can still cooperate effectively together.¹²⁶ In fact, cooperative initiatives—particularly joint military formations—often develop a shared mindset, or esprit de corps, of their own.¹²⁷
- **Clear goals and serious intent.** According to one study, “All case studies confirm the importance of this factor.”¹²⁸ A CSIS study shows that successful projects can satisfy a range of goals, whether political, operational, or economic—as long as they are agreed to early on.¹²⁹ If it is true “governments that take defence seriously . . . will be more inclined to co-operate than others,” those nations most committed to investing in their defense will be the best candidates for cooperative projects—and vice versa.¹³⁰
- **Military-strategic symmetry.** Having forces of similar size and quality is important for cooperation but is “not a golden rule.”¹³¹ This factor is related to establishing trust, being like-minded, and agreeing on shared goals. One important aspect of symmetry is defense planning alignment, which goes hand in hand with the deepest forms of cooperation.¹³² Regardless of symmetry, standardization and interoperability act as “multipliers for cooperation” through aligning concepts, doctrine, and equipment standards.¹³³

The following factors indirectly enable cooperation rather than secure success:

- **A level playing field for defense industry.** Defense industry protectionism undermines the prospects for cooperation because it reduces the chances of joint procurements or cross-border collaboration and erodes trust.¹³⁴ Another challenge is the mixed role of the U.S. industry in European defense.¹³⁵

- **The role of institutions.** International institutions and regimes—whether formal (e.g., NATO or the European Union) or informal (e.g., minilateral groups)—are designed to overcome many of the barriers to cooperation.¹³⁶ Institutions also enable the collective action benefits of large groups, such as increased resources or coalitions of the willing.¹³⁷ However, bottom-up cooperative initiatives can be just as viable as top-down initiatives driven by institutions—both are needed.¹³⁸
- **Cost savings.** Economic factors are often critical to the political argument for justifying cooperation in the first place. This argument is generally one of cost savings and efficiency.¹³⁹ For example, the European Sky Shield air defense initiative purports to offer “a flexible and scalable way for nations to strengthen their deterrence and defence in an efficient and cost-effective way.”¹⁴⁰

EXOGENOUS FACTORS

Endogenous factors are an important limitation and enabler for the prospects of European defense cooperation.¹⁴¹ However, external factors often trump internal ones. History shows the power of exogenous forces and shocks in shaping the environment and the policies that result.¹⁴²

This point is made in the context of European defense in a RAND report on European strategic autonomy, which concludes that “EU-led initiatives in pursuit of European strategic autonomy in defence are important, but its shape will also be determined by external influences.”¹⁴³ This effect can be seen in European defense spending levels, which rose significantly after Russia’s 2014 invasion of Crimea and in the context of an isolationist president in the United States.¹⁴⁴

Example exogenous factors that may influence the prospects for European defense cooperation over the next decade include the following:¹⁴⁵

- the global economic outlook
- the war in Ukraine
- levels of regional and global aggression and conflict
- the policies of revisionist actors, such as Russia and China
- the policy of key allies such as the United States (toward Europe and regarding European defense)

Figure 4: The Four Characteristics of Defense Cooperation

Form	Function	Venue	Benefit
<p>Collaboration</p> <hr/> <p>Pooling</p> <hr/> <p>Sharing</p> <hr/> <p>Integration</p> <hr/> <p>Specialization</p> <hr/> <p>Interoperability</p> <hr/> <p>Military assistance</p>	<p>Military Operational</p> <p>Deployable HQ</p> <p>Modular formation</p> <p>Integrated formation</p> <p>Devolved command</p> <p>Training and exercising</p> <p>Logistics and services</p> <hr/> <p>Industrial</p> <p>Joint production</p> <p>Codevelopment</p> <p>Defense trade</p>	<p>Bilateral</p> <hr/> <p>Minilateral</p> <hr/> <p>Institutional</p>	<p>Political</p> <p>Trust</p> <p>Solidarity</p> <p>Influence</p> <p>Capacity</p> <hr/> <p>Economic</p> <p>Cost savings</p> <p>Trade</p> <p>Public goods</p> <hr/> <p>Military</p> <p>Interoperability</p> <p>Standardization</p> <p>Fighting power</p>

Source: Author's analysis based on multiple sources, as detailed in endnote 147.

in particular), the United Kingdom, and Turkey (regarding EU defense)

- the credibility and policies of NATO
- unknown future shocks and surprises

TYPES OF DEFENSE COOPERATION

There are many different types of defense cooperation. This final section outlines a typology for understanding the landscape of defense cooperation.¹⁴⁶

The wide variety of cooperation types gives European defense leaders a range of options to boost cooperation. Knowing this fact may help overcome the challenges of European defense cooperation as leaders may tailor initiatives to the specific situation and constraints of the participants.

The typology is based on four characteristics of cooperation, shown in figure 4:

1. **Form:** Form refers to the structure of cooperation, from loose association to tight integration. Forms depend on the degree of participant interdependence.

2. **Function:** Function refers to the purpose of cooperation, from establishing joint military units to the joint procurement of capability.

3. **Venue:** Cooperation occurs through formal multilateral institutions (such as NATO and the European Union), small groups (minilateral), or bilateral relationships.

4. **Benefit:** Cooperation has political, economic, and military benefits. The benefits of defense cooperation depend on its nature and may provide various benefits. For example, multinational military units may provide more military or political than economic benefit, while joint procurements may yield more economic benefit.

CONCLUSION: NOW OR NEVER

Europe has a defense dilemma: it is spending more on defense but cooperating less. This is despite three decades of flagship political initiatives designed to improve European defense cooperation. There is no single reason for this failure. It is a result of a deep-seated collective action problem entrenched throughout

the political, economic, and military dimensions of the European defense landscape.

Equally, there is no silver bullet. Even the radical change in the threat environment since Russia's invasion of Ukraine may be counterproductive if new defense spending is not directed toward European cooperation.

Ultimately, the solution is simple: European capitals must prioritize cooperation over other objectives, though this is easier said than done. However, understanding the nature of the problem can inform the solutions in three ways.

First, conceptualizing European defense cooperation challenge as a collective action problem reveals three principles that European leaders and institutions can apply to overcome the challenges:

- Use the power of small groups
- Take steps to normalize cooperation
- Design mechanisms to incentivize cooperation and discourage fragmentation

Second, previous experience reveals internal and external factors that influence the prospects for cooperation. Endogenous factors include trust, like-mindedness, clear goals, and symmetry, alongside other enabling factors. Exogenous factors include external threats, the policies of key allies, and the unexpected shocks that so often shape international politics.

Finally, there are many different types of defense cooperation. Knowing this may help overcome the challenges of European defense cooperation, as initiatives can be tailored to the specific situation and constraints of the participants to provide European leaders with a range of options to boost cooperation.

Europe has solved collective action problems before. The success of the European Union in embedding cooperation

across a wide swath of European life, from its origins in the coal and steel community to recent advances in digital services laws, demonstrates the power of shared identity to overcome the constraints of national polices and borders. The same goes for NATO, an organization founded on the power of cooperation for the common good.

Europe can solve its defense cooperation dilemma, but it needs to think big and act fast. Russia's invasion of Ukraine has provided a wake-up call for European leaders and the imperative they need to transform European defense. They cannot miss their moment: it is now or never. ■

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ENDNOTES

- 1 EDA, *2022 Coordinated Annual Review on Defence (CARD) Report* (Brussels: EDA, November 2022), <https://eda.europa.eu/docs/default-source/eda-publications/2022-card-report.pdf>.
- 2 For example, David Ignatius, “How the War in Ukraine Has Remade Europe,” *Washington Post*, October 5, 2022, <https://www.washingtonpost.com/opinions/2022/10/05/ukraine-war-changed-europe-nato-russia/>.
- 3 For the basis of this project and argument (that a transformation in European defense is required), see Max Bergmann, Colin Wall, Sean Monaghan, and Pierre Morcos, “Transforming European Defense,” CSIS, *CSIS Briefs*, August 18, 2022, <https://www.csis.org/analysis/transforming-european-defense>.
- 4 European External Action Service Press Team, The Diplomatic Service of the European Union, “Foreign Affairs Council (Defence): Press Remarks by High Representative Josep Borrell after the Meeting,” Press release, November 15, 2022, https://www.eeas.europa.eu/eeas/foreign-affairs-council-defence-press-remarks-high-representative-josep-borrell-after-meeting_en.
- 5 EDA, 2022 CARD Report. As Borrell, high representative of the European Union for foreign affairs and security policy and vice president of the European Commission (HRVP), put the situation, “The degree of cooperation among our armies is very low when it comes to the moment to increase their capabilities. It has to be changed.” See “Foreign Affairs Council.”
- 6 Robin Emmott, “Record EU Defence Spending Masks Failure to Collaborate, Report Says,” Reuters, December 6, 2021, <https://www.reuters.com/world/europe/record-eu-defence-spending-masks-failure-collaborate-report-says-2021-12-06/>.
- 7 The EDA report includes member state reported data up to 2021. NATO does not report on levels of cooperation or cooperative spending. The EDA data are limited in several ways. For example, EDA reports on cooperative spending (equipment and research and technology [R&T]), not cooperative initiatives per se (e.g., multinational formations). The data are also incomplete, as only half of the member states report the data: 14 out of 26 member states reported in 2022, while only 11 reported in 2021. EDA, *Defence Data 2020–2021: Key Findings and Analysis* (Brussels: EDA, 2022), 15, <https://eda.europa.eu/publications-and-data/brochures/eda-defence-data-2020-2021..>
- 8 EDA, *Defence Data*.
- 9 Ibid., 15. The latest data—published in December 2022—suggest these figures have recovered slightly (to 18 percent and 7 percent, respectively). However, these increases are partially explained by an increased number of member states reporting figures (up from 11 in the previous year to 14). It is also worth noting the total amount of collaborative spending in 2021 (on equipment and R&T) has increased substantially since 2020 in line with overall increases in EU defense spending. At the same time, increasing inflation reduces the purchasing power of these increases.
- 10 This phrase and the section heading is adapted from: Bastian Giegerich and Ester Sabatino, “The (Sorry) State of EU Defense Cooperation,” Carnegie Europe, October 6, 2022, <https://carnegieeurope.eu/strategieurope/88104>.
- 11 The ESDP later became the Common Security and Defense Policy (CSDP) in 2009 under the Treaty of Lisbon. See “Timeline: EU Cooperation on Security and Defence,” European Council, <https://www.consilium.europa.eu/en/policies/defence-security/defence-security-timeline/>.
- 12 Flagship NATO initiatives included the 1999 Defense Capabilities Initiative, the 2002 Prague Capabilities Commitment, the 2006 Comprehensive Political Guidance, and the 2010 Lisbon capabilities package. Meanwhile, the European Union established the Headline Goal process in 1999, the EDA in 2004, EU Battlegroups in 2007, and a Capability Development Plan in 2008 before the 2009 Lisbon Treaty paved the way for Permanent Structured Cooperation (PESCO) on defense.
- 13 Council of the European Union, “3055th and 3056th Council Meetings Foreign Affairs Defence and Development,” Press release, European Union, December 9, 2010, https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/118387.pdf.
- 14 NATO, “Summit Declaration on Defence Capabilities: Toward NATO Forces 2020,” Press release, May 20, 2012, https://www.nato.int/cps/en/natohq/official_texts_87594.htm?mode=pressrelease.
- 15 NATO, “Wales Summit Declaration,” Press release, September 5, 2014, https://www.nato.int/cps/en/natohq/official_texts_112964.htm.
- 16 Including, among others, PESCO and the EDF, as well as the non-EU European Intervention Initiative. See, for example, Simon Sweeney and Neil Winn, “EU Security and Defence Cooperation in Times of Dissent: Analysing PESCO, the European Defence Fund and the European Intervention Initiative (EI2) in the Shadow of Brexit,” *Defence Studies* 20, no. 3 (2020), 224–49, <https://www.tandfonline.com/doi/abs/10.1080/14702436.2020.1778472?journalCode=fdef20>.
- 17 Successful multinational projects include A400M, the European Air Transport Command, and NATO’s Strategic Airlift Command and Multirole Tanker Transport (A330) program.
- 18 For example, there are 18 NATO High Visibility Projects and 60 PESCO projects. See “Multinational Capability Cooperation,” NATO, November 18, 2022, https://www.nato.int/cps/en/natohq/topics_163289.htm; and “Home,” PESCO, <https://www.pesco.europa.eu/>.
- 19 For example, despite aligned requirements and timing for frigates among Italy, France, Germany, the United Kingdom, Spain, the Netherlands, and Norway, “the complex warship domain has witnessed a dramatic reversal towards domestic frigate programmes.” Michael Kluth, “What Drives Cooperation on the Defence Market?” in *Solving the European Defence Market Puzzle*, ed. Sebastian Vagt (Brussels: European Liberal Forum, 2018), 13–14, <https://liberalforum.eu/wp-content/uploads/2021/06/Solving-the-European-Defence-Market-Puzzle.pdf>.
- 20 Henry Foy and Sylvia Pfeifer, “Europe’s Defence Sector: Will War in Ukraine Transform Its Fortunes?” *Financial Times*, July 18, 2022, <https://www.ft.com/content/0a917386-7a62-4e4a-9b89-123933f750a6>.
- 21 Bergmann et al., “Transforming European Defense.”
- 22 Luigi Scazzieri, *Is European Defence Missing Its Moment?* (London: Centre for European Reform, January 16, 2023), <https://www.cer.eu/insights/european-defence-missing-its-moment>.
- 23 Tomas Valasek, *Surviving Austerity: The Case for a New Approach to EU Military Collaboration* (London: Centre for European Reform, 2011), 1, <https://www.cer.org.uk/publications/archive/report/2011/surviving-austerity-case-new-approach-eu-military-collaboration>.
- 24 For the seminal work on this topic, see Mancur Olsen, *The Logic of Collective Action* (Cambridge, MA: Harvard University Press, 1965). For an overview of collective action and public goods theory in historical thought, see Keith L. Dougherty, “Public Goods Theory

- from Eighteenth Century Political Philosophy to Twentieth Century Economics,” *Public Choice* 117, no. 3/4 (2003), 239-53, <http://www.jstor.org/stable/30025904>.
- 25 There are three main types of collective action problem: the tragedy of the commons, free riding, and the prisoner’s dilemma. The latter two are most relevant to defense cooperation. Free riding occurs when actors gain benefit from group efforts without contributing. Prisoner’s dilemmas stem from incentives to act selfishly, where cooperation would have provided greater collective benefit. See, for example, “Collective Action Problems: The Problem of Incentives,” Openstax, <https://openstax.org/books/introduction-political-science/pages/6-4-collective-action-problems-the-problem-of-incentives>.
- 26 Meijer and Brooks’s definition builds on a term introduced in 2013. Hugo Meijer and Stephen G. Brooks, “Illusions of Autonomy,” *International Security* 45, no. 4 (Spring 2021), 7-43, https://doi.org/10.1162/isec_a_00405. See Olivier de France and Nick Witney, *Europe’s Strategic Cacophony*, Policy Brief 77 (London: European Council on Foreign Relations [ECFR], April 25, 2013), https://ecfr.eu/publication/europes_strategic_cacophony205/. Meijer and Brooks’s analysis on divergent threat perceptions takes Russia as a sample threat and finds a spectrum of approaches across Europe from 10 states that consider Russia unimportant to their national security and defense to five that consider Russia the dominant threat. See Meijer and Brooks, “Illusions of Autonomy,” 17.
- 27 Meijer and Brooks, “Illusions of Autonomy,” 42.
- 28 EDA, *2022 CARD Report*, 6. The ECFR’s European Sovereignty Index also demonstrates the collective action problem. It judges the overall state of Europe’s collective power (or sovereignty) based on the member states’ inputs in different sectors. It shows how a piecemeal approach driven by individual incentives undermines the collective good, and the sum is less than the parts: “The state of European security and defence sovereignty leaves much to be desired.” “European Sovereignty Index,” ECFR, June 2022, <https://ecfr.eu/special/sovereignty-index/#terrain-defence>.
- 29 Meijer and Brooks, “Illusions of Autonomy,” 10.
- 30 See the section below on success factors for more detail.
- 31 Christian Andreas Von Deimling, Andreas H. Glas, and Thomas Ekström, “Cooperative Purchasing in Defence: Analysis of NATO and EU Initiatives,” in *IPSERA 2013 Conference Proceedings* (Nantes, France: IPSERA, March 2013), 715, https://www.researchgate.net/publication/235995172_Cooperative_purchasing_in_defence_Analysis_of_NATO_and_EU_initiatives.
- 32 Ibid.
- 33 For example, Greg Sanders and Andrew Hunter highlight the complexities of managing various political, economic, industry, and operational concerns during joint procurements that can undermine projects or kill them off entirely. See Sanders and Hunter, *Designing and Managing Successful International Joint Development Programs* (Washington, DC: CSIS, January 2017), <https://www.csis.org/analysis/designing-and-managing-successful-international-joint-development-programs>.
- 34 For example, this principle is central to Adam Smith’s 1776 treatise *The Wealth of Nations*, in which he argued that productive capacity depends on dividing labor into discrete specialized tasks to generate surplus and comparative advantage to trade with others. See “The Wealth of Nations,” Adam Smith Institute, <https://www.adamsmith.org/the-wealth-of-nations>; and Will Kenton, “Specialization,” Investopedia, April 6, 2022, <https://www.investopedia.com/terms/s/specialization.asp>.
- 35 “Public Goods,” Stanford Encyclopedia of Philosophy, July 21, 2021, <https://plato.stanford.edu/entries/public-goods/>.
- 36 An oft cited example is the Netherlands, which sold its Leopard 2 main battle tanks in 2011 and had to reinstate them after 2014, forming a joint tank battalion with Germany. See David Axe, “The Dutch Army Eliminated All Its Tanks—Then Realized It Had Made a Huge Mistake,” *Forbes*, November 30, 2020, <https://www.forbes.com/sites/davidaxe/2020/11/30/the-dutch-army-eliminated-all-its-tanks-then-realized-it-had-made-a-huge-mistake/?sh=69b9858a35f1>. As Dick Zandee and Adája Stoetman of the Clingendael Institute have put, “The term specialisation generates more opposition than support in the defence community because it has often been interpreted as a scapegoat for deliberately abandoning defence capabilities, driven by budget cuts and conducted in an uncoordinated way—specialisation ‘by default’ instead of ‘by design.’” See Zandee and Stoetman, *Specialising in European Defence: To Choose or Not to Choose?* (The Hague, Netherlands: Clingendael, July 2022), 1, <https://www.clingendael.org/pub/2022/specialising-in-european-defence/>.
- 37 Meijer and Brooks, “Illusions of Autonomy,” 31.
- 38 This is based on the principle of *juste retour*, or fair return, which allocates work share on the basis of government investment in the project rather than according to industrial capacity (cost share = work share). While this offers each participating nation a fair return on its investment, according to one analysis, it “results in an awkward and inefficient arrangement.” Jay Edwards, *The EU Defence and Security Procurement Directive: A Step Towards Affordability?* (London: Chatham House, 2011), 5, https://www.chathamhouse.org/sites/default/files/0811pp_edwards.pdf. See also Margriet Drent and Dick Zandee, “More European Defence Cooperation—More European Defence Industry?” (The Hague, Netherlands: Clingendael, 2018), 5-6, https://www.clingendael.org/sites/default/files/2018-06/PB_European_Defence_Cooperation_European_Defence_Industry_0.pdf.
- 39 Keith Hartley, “The Future of European Defence Policy: An Economic Perspective,” *Defence and Peace Economics* 14, no. 2 (2003): 111.
- 40 European Commission, *Reflection Paper on the Future of European Defence* (Brussels: European Commission, June 2017), 9, https://commission.europa.eu/system/files/2017-06/reflection-paper-defence_en.pdf. U.S. defense spending in 2022 was \$723 billion, compared to NATO Europe’s (plus Canada) spending of \$328 billion. See NATO, “Defence Expenditure of NATO Countries (2014-2022),” Press release, June 27, 2022, https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/220627-def-exp-2022-en.pdf.
- 41 Seth G. Jones, Colin Wall, and Rachel Ellehuus, *Europe’s High-End Military Challenges: The Future of European Capabilities and Missions* (Washington, DC: CSIS, November 2021), <https://www.csis.org/analysis/europes-high-end-military-challenges-future-european-capabilities-and-missions>; and Ben Barry et al., *Defending Europe: Scenario-Based Capability Requirements for NATO’s European Members* (London: IISS, April 2019), <https://www.iiss.org/blogs/research-paper/2019/05/defending-europe>.
- 42 Further, “The EU Defence Initiatives (CARD, PESCO, EDF) have the full support of all pMS. Still, these initiatives have not reached their full potential, also compounded by the Covid-19 pandemic. Only modest progress was made to turn collaborative opportunities presented in the 2020 CARD cycle into concrete cooperation.” EDA, *2022 CARD Report*, 1.
- 43 EDA, *Defence Data*. Cooperation increased from 11 percent to 18 percent of total procurement but remained far short of the 35 percent target.
- 44 As defense specialist Paul Taylor puts it, “More money is being put

- on the table. But the fact is that it's not yet being overwhelmingly spent on European efforts. It's being spent to a significant extent on off-the-shelf American kit and/or channelled towards national armament directors and industries." See Taylor, "A Single Defence Market? The Challenge of a Century," *European Defence Matters* 24 (2022), 18, <https://eda.europa.eu/docs/default-source/eda-magazine/edm24final.pdf>. Data released by SIPRI support this trend and show that the United States is the biggest provider of arms to Europe by a significant margin: "The biggest growth in arms imports among world regions occurred in Europe. In 2017-21 imports of major arms by European states were 19 per cent higher than in 2012-16. . . . European states are also expected to increase their arms imports significantly over the coming decade, having recently placed large orders for major arms, in particular combat aircraft from the USA." See Diego Lopez da Silva et al., *Trends in World Military Expenditure, 2021* (Solna, Sweden: SIPRI, April 2022), <https://www.sipri.org/publications/2022/sipri-fact-sheets/trends-world-military-expenditure-2021>. According to Foy and Pfeifer, "Governments have pledged a surge in spending but some companies fear much of the money will go on US equipment." Foy and Pfeifer, *Europe's Defence Sector*.
- 45 EDA, *Defence Data*, 11. A recent open letter by 10 European defense experts makes the same point: "Member states must avoid rushing into hasty, purely national, decisions and they should not exclusively focus on short-term responses. . . . EU countries must also adopt a long-term perspective that can help build up an effective defence within a competitive European Defence and Technological Industrial Base (EDTIB). . . . Otherwise, the new resources available to member states risk further aggravating the fragmentation of the EDTIB." See Alessandro Marone et al., "Collective Defence Investment: Europe Must Do More and at a Faster Pace," Euractiv, November 7, 2022, <https://www.euractiv.com/section/defence-and-security/opinion/collective-defence-investment-europe-must-do-more-and-at-a-faster-pace/>. See also EDA, *2022 CARD Report*, 3; and Tim Lawrenson, "Russia's War and the Accelerating Pace of EU Defence Initiatives," *Military Balance Blog*, IISS, October 21, 2022, <https://www.iiss.org/blogs/military-balance/2022/10/russias-war-and-the-accelerating-pace-of-eu-defence-initiatives>.
- 46 See, for example, Anthony H. Cordesman and Paul Cormarie, "NATO Force Planning and the Impact of the Ukraine War," CSIS, *Commentary*, October 24, 2022, <https://www.csis.org/analysis/nato-force-planning-and-impact-ukraine-war>. Cordesman and Cormarie write on the topic of variety: "At the one end, France and the United Kingdom have interventionist capabilities, rapidly deployable, supported by their own strategic reconnaissance assets and capable of delivering heavy fire power. . . . At the other extreme end countries like Austria and Ireland have national defence forces able to contribute to low-spectrum operations but with very limited high-end capabilities. All the other European countries are somewhere in between." See also Margriet Drent, Eric Wilms, and Dick Zandee, *Making Sense of European Defence* (The Hague, Netherlands: Clingendael, December 2017), 2, https://www.clingendael.org/sites/default/files/2017-12/Making_Sense_of_European_Defence.pdf.
- 47 Dick Zandee, Margriet Drent, and Rob Hendriks, *Defence Cooperation Models: Lessons Learned and Usability* (The Hague, Netherlands: Clingendael, October 2016), 58, <https://www.clingendael.org/publication/defence-cooperation-models>; and Drent, Wilms, and Zandee, *Making Sense of European Defence*.
- 48 On the increasing complexity of defense projects, see Jeffrey A. Drezner, *Competition and Innovation under Complexity* (Santa Monica, CA: RAND Corporation, 2009), <https://www.rand.org/pubs/reprints/RP1386.html>. On complexity as the cause of delays and cost increase, see Nassim Nicholas Taleb, *Antifragile: Things That Gain from Disorder* (London: Penguin Books, 2014).
- 49 Sanders and Hunter, *Designing and Managing*. See also Bence Németh, "Military Innovation and Capability Development in a Multinational Context: The Costs and Benefits of Multinational Cooperation," *The Air Power Journal*, November 2022, 1-12.
- 50 Von Deimling, Glas, and Ekström, "Cooperative Purchasing," 714; and Hartley, "The Future," 113. As Sanders and Hunter suggest, "While modern single-nation programs face the complexities associated with integrating government and industry, international programs must also intermingle governments and international industries." Sanders and Hunter, *Designing and Managing*, vii.
- 51 See, for example, Vesa Kanninen and Juha-Matti Lehtonen, "Cooperative Procurement in Building National Defence: Why Are There So Few?" *Defence and Peace Economics* 31, no. 2 (2020): 201-19. Reasons for this include the strategic cacophony problem, variance in bargaining power of participants, industry dynamics, and short termism.
- 52 Von Deimling, Glas, and Ekström, "Cooperative Purchasing," 714.
- 53 For example, gains through R&D costs, economies of scale, technology transfer, learning and interoperability. A 2015 EU assessment of multinational procurement regulations confirmed this trend, showing that while multinational sourcing "is today favoured for contracts dealing with services, the acquisition of equipment deemed to be of a low strategic value, and sub-systems," the same was not the case for "all of the major military equipment contracts, thus those that have had a structural effect on the [European defense industrial base]." See Directorate-General for External Policies Policy Department, *The Impact of the "Defence Package" Directives on European Defence* (Strasbourg, France: European Parliament, 2015), 6, [https://www.europarl.europa.eu/RegData/etudes/STUD/2015/549044/EXPO_STU\(2015\)549044_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2015/549044/EXPO_STU(2015)549044_EN.pdf).
- 54 Randi Stenson, "US Army Training and Doctrine Command Updates Army Capstone Doctrine, Codifying Shift to Multidomain Operations," U.S. Army, October 10, 2022, https://www.army.mil/article/260943/us_army_training_and_doctrine_command_updates_army_capstone_doctrine_codifying_shift_to_multi_domain_operations.
- 55 In the case of EU military operations, political challenges have prevented the formation of a permanent institutional operational headquarters despite efforts spanning two decades (see Luis Simon, "Don't Believe the Hype about European Defense," War on the Rocks, June 27, 2017, <https://warontherocks.com/2017/06/dont-believe-the-hype-about-european-defense/>). The European Union agreed the Military Planning and Conduct Capability in 2017. It is currently focused on nonexecutive missions, such as training and assistance, with the aim to expand to manage two small-scale or one medium-scale executive operation by 2025. See EEAS, *The Military Planning and Conduct Capability* (MPCC) (Brussels: EEAS, November 2022), https://www.eeas.europa.eu/sites/default/files/documents/20221115_MPCC%20Fact-sheet.pdf. While the EU Battlegroups were established in 2007 and often exercised, they have never been deployed, mainly due to a lack of political will. Dick Zandee and Adaja Stoitman, *Realising the EU Rapid Deployment Policy Brief Capacity: Opportunities and Pitfalls* (The Hague, Netherlands: Clingendael, October 2022), 1-10, https://www.clingendael.org/sites/default/files/2022-10/Policy_brief_Rapid_Deployment_Capacity.pdf. For more on the politics of multinational military operations, see Patrick A. Mello and Stephen M. Saideman, "The Politics of Multinational Military Operations," *Contemporary Security Policy* 40, no. 1 (2019): 30-37.
- 56 Zandee, Drent, and Hendriks, *Defence Cooperation Models*.
- 57 See, for example, Cole Livieratos, "From Complicated to Complex:

- The Changing Context of War,” Modern War Institute, June 14, 2022, <https://mwi.usma.edu/from-complicated-to-complex-the-changing-context-of-war/>; and Erik Lin-Greenberg, “Allies and Artificial Intelligence: Obstacles to Operations and Decision-Making,” *Texas National Security Review* 3, no. 2 (Spring 2020): 56-76, <https://tnsr.org/2020/03/allies-and-artificial-intelligence-obstacles-to-operations-and-decision-making/>.
- 58 As Németh points out, “Military are cautious about new ideas as they have to deal with enormous uncertainties on the battlefield and in the strategic environment” (Németh, “Military Innovation”). On Europe’s capability challenges, see Meijer and Brooks, “Illusions of Autonomy,” 26-28; and Jones, Wall, and Ellehuus, *Europe’s High-End Military*. Despite these challenges, it is worth noting European nations have fought and trained together extensively in recent years. Some even argue that multinational cooperation is the defining feature of modern European military operations. See Anthony King, *The Transformation of Europe’s Armed Forces: From the Rhine to Afghanistan* (Cambridge, UK: Cambridge University Press, 2011).
- 59 Marone et al., “Collective Defence Investment.”
- 60 These include the cacophony problem (which is less cacophonous on a smaller scale), the strategic fit problem (because like-minded groups self-select), and the specialization dilemma (because mutual trust and coordination is higher in smaller groups).
- 61 “Collective Action Problems.” However, this is not to say cooperation is always easier in small groups: in some situations, large groups can generate more resources or coalitions of the willing to overcome collective action problems. See, for example, Pamela E. Oliver and Gerald Marwell, “The Paradox of Group Size in Collective Action: A Theory of the Critical Mass. II,” *American Sociological Review* 53, no. 1 (February 1988): 1-8, <https://www.jstor.org/stable/2095728>.
- 62 For example, in its formative years, NATO was structured around five regional planning groups. Sean Monaghan and Ed Arnold, “Indispensable: NATO’s Framework Nations Concept beyond Madrid,” CSIS, *CSIS Briefs*, June 27, 2022, <https://www.csis.org/analysis/indispensable-natos-framework-nations-concept-beyond-madrid>. The 2014 Framework Nations Concept encouraged small groups to “work multinationally for the joint development of forces and capabilities required by the Alliance, facilitated by a framework nation.” “Wales Summit Declaration,” NATO, September 5, 2014, https://www.nato.int/cps/en/natohq/official_texts_112964.htm. Similarly, the European Union’s PESCO framework is based on small groups of member states (and nonmembers) who cooperate on specific initiatives, benefitting from “combined differentiation.” See “Home,” PESCO, <https://www.pesco.europa.eu/>; and Benjamin Martill and Carmen Gebhard, “Combined Differentiation in European Defense: Tailoring Permanent Structured Cooperation (PESCO) to Strategic and Political Complexity,” *Contemporary Security Policy*, 2022, 1-28, <https://www.tandfonline.com/doi/full/10.1080/13523260.2022.2155360>.
- 63 For example, Michele Flournoy and her coauthors advocate using “country clusters” based on capability gaps. David R. Scruggs et al., *European Defense Integration: Bridging the Gap Between Strategy and Capabilities* (Washington, DC: CSIS, October 1, 2005), <https://www.csis.org/analysis/european-defense-integration-bridging-gap-between-strategy-and-capabilities>. Valasek argues for “islands of cooperation” based on geography and capability needs. Valasek, *Surviving Austerity*. Drent, Wilms, and Zandee advocate “core groups” of “willing and able” nations based on geography, comparative advantage and capabilities. Drent, Wilms, and Zandee, *Making Sense of European Defence*. Several scholars have explored the principle of “differentiated cooperation” through informal groupings in European security and defense policy. See, for example, Jolyon Howorth, “Differentiation in Security and Defence Policy,” *Comparative European Politics* 17 (2019): 261-77, <https://doi.org/10.1057/s41295-019-00161-w>; Stephan Klose, Elie Perot, and Sevgi Temizisler, “Spot the Difference: Differentiated Co-operation and Differentiated Integration in the European Union,” *Journal of Common Market Studies* 61, no. 1 (January 2023), 259-76, <https://onlinelibrary.wiley.com/doi/10.1111/jcms.13370>; and Benjamin Leruth, “Experimental Differentiation as an Innovative Form of Cooperation in the European Union: Evidence from the Nordic Battlegroup,” *Contemporary Security Policy*, 2022, 1-25, <https://www.tandfonline.com/doi/full/10.1080/13523260.2022.2143890>.
- 64 See Bence Németh, “Bilateralism and Minilateralism Are Europe’s Secret Strengths,” *War on the Rocks*, June 3, 2022, <https://warontherocks.com/2022/06/bilateralism-and-minilateralism-are-europes-secret-strengths/>; and Németh, *How to Achieve Defence Cooperation in Europe?: The Subregional Approach* (Bristol, UK: Bristol University Press, 2022).
- 65 For example, the joint German-Netherlands tank battalion was formed only after the Dutch government mistakenly sold its main battle tanks. J. R. Swillens, “You Should Write TRUST in Capital Letters: Dutch-German Military Integration,” *Atlantisch Perspectief* 42, no. 3 (2018): 29-32, <https://www.jstor.org/stable/48581441>. Equally, for the Visegrad 4 group of central European nations, “Cooperation in defence has been limited compared to other fields (energy policy being a successful example).” Bence Németh and Tamás Csiki, “Perspectives of Central European Multinational Defence Cooperation: A New Model?” in M. Majer and R. Ondrejcsák, eds., *Panorama of Global Security Environment 2013* (Bratislava: CENAA, 2013), 11-24.
- 66 The ECFR’s Coalition Explorer shows the potential for natural small groups in Europe across a range of issues. “EU Coalition Explorer,” ECFR, July 8, 2020, <https://ecfr.eu/special/eucoalitionexplorer/>.
- 67 For example, Valasek identifies the different potential roles of various European nations (e.g., “the sharers,” “the newcomers,” “the loners”) on which specialized groups could be based. Valasek, *Surviving Austerity*.
- 68 Examples include functional groups (e.g., maritime surveillance, air and missile defense, special forces, groups based on existing NATO Centers of Excellence) or regional groups (e.g., the Black Sea, the Mediterranean, the Western Balkans, and central Europe). See Dick Zandee, *European Defence: Specialisation by Capability Groups* (The Hague, Netherlands: Clingendael, October 2021), <https://www.clingendael.org/publication/european-defence-specialisation-capability-groups>; and Monaghan and Arnold, “Indispensable.” The new German-led European Sky Shield initiative could also become a flagship for small group cooperation success, though one consequence of the damaging Leopard 2 debate suggests the trust and reliability of Germany may have suffered along with the prospects for successful cooperation. As Tomasz Szatkowski, Poland’s ambassador to NATO, assessed the implications of Germany’s refusal to grant the reexport of Leopard 2s to Ukraine: “It’s always better to go national. If you have to go multinational, there may be some strings attached and there are some lessons learned that are indeed derived from the current crisis.” Henry Foy and Laura Pitel, “German Reluctance over Tanks Threatens Arms Sales, Officials Warn,” *Financial Times*, January 23, 2023, <https://www.ft.com/content/37ac7605-9b01-4f4a-a943-92842931d859>.
- 69 This is also an insight from social constructivism, the theory of which is focused on the potential for change and preference formation through social processes. See Alexander Wendt, “Anarchy Is What States Make of It: The Social Construction of Power Politics,” *Inter-*

- national Organization* 46, no. 2 (1992), 391-425, <http://www.jstor.org/stable/2706858>. Systems theory also shows that establishing group norms is a more effective way to change behavior than individual interventions (e.g., through incentives or punishments). See, for example, Donella Meadows, *Leverage Points: Places to Intervene in a System* (Hartland, VT: The Sustainability Institute, 1999), https://donellameadows.org/wp-content/userfiles/Leverage_Points.pdf.
- 70 For example, people pay taxes because they believe it is socially responsible, the tax system is fair, and that others will pay their share. On reciprocity, see, for example, Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984).
- 71 Louk Faesen et al. describe well the three mechanisms of normalization: socialization, persuasion, and coercion. All three can be used to implement the three principles highlighted here. See Faesen et al., *From Blurred Lines to Red Lines: How Countermeasures and Norms Shape Hybrid Conflict* (The Hague, Netherlands: Hague Centre for Strategic Studies, September 2020), https://hcss.nl/wp-content/uploads/2021/01/From-Blurred-Lines-to-Red-Lines_0.pdf.
- 72 The Versailles declaration committed to “further incentives to stimulate Member States’ collaborative investments in joint projects and joint procurement of defence capabilities.” “Versailles Declaration,” European Union, March 11, 2022, <https://www.consilium.europa.eu/media/54773/20220311-versailles-declaration-en.pdf>. It was followed by the Strategic Compass in March, the Defence Investment Gaps Analysis in May, the European Defence Industry Reinforcement through Common Procurement Act (EDIRPA) in July, and the EDA’s 2022 *CARD Report* in November. Further initiatives in 2023 will establish a framework for joint defense procurement, including incentives such as tax exemptions and EU financing. For a summary of these initiatives, see “Stronger European Defence,” European Commission, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/stronger-european-defence_en.
- 73 “EU Defence Review Calls for Greater European Cooperation to Match Defence Spending Increases,” EDA, November 15, 2022, <https://eda.europa.eu/news-and-events/news/2022/11/15/eu-defence-review-calls-for-greater-european-cooperation-to-match-defence-spending-increases>.
- 74 Sophia Besch, “EU Defense and the War in Ukraine,” Carnegie Endowment for International Peace, December 21, 2022, <https://carnegieendowment.org/2022/12/21/eu-defense-and-war-in-ukraine-pub-88680>.
- 75 The new Swedish presidency’s priority focus on security and unity bodes well in this regard. See “Priorities,” Swedish Presidency of the Council of the European Union, <https://swedish-presidency.consilium.europa.eu/en/programme/priorities/>. This argument applies to both the war in Ukraine, and the inevitable shift in the priorities of the United States–Europe’s traditional security guarantor—to compete with China’s growing power and belligerence. See The White House, *National Security Strategy* (Washington, DC: The White House, 2022), <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.
- 76 Any discussion of cooperation in both documents referred to cooperation with partners outside of NATO (e.g., the European Union or prospective members) rather than cooperation among them to achieve shared goals. See “Madrid Summit Declaration,” NATO, June 29, 2022, https://www.nato.int/cps/en/natohq/official_texts_196951.htm; and “NATO 2022 Strategic Concept,” NATO, <https://www.nato.int/strategic-concept/>.
- 77 One of the key principles of NATO’s first Strategic Concept in 1949 was that allied forces “should be developed on a coordinated basis in order that they can operate most economically and efficiently.” Accordingly, the concept devoted one of its six pages to “Cooperative Measures,” which ranged from equipment standardization to joint development and research. The document states, “The essence of our over-all concept is to develop a maximum of strength through collective defense planning. As a prerequisite to the successful implementation of common plans, it is recognized that certain cooperative measures must be undertaken in advance.” Gregory W. Pedlow, ed., *NATO Strategy Documents 1949-1969* (Brussels: NATO, n.d.), 4, 7, <https://www.nato.int/docu/stratdoc/eng/intro.pdf>.
- 78 However, political prioritization is not enough; other factors contribute too. See the following discussion of exogenous factors.
- 79 “More Allies Join NATO’s Multinational Capability Cooperation Initiatives,” NATO, April 28, 2022, https://www.nato.int/cps/en/natohq/news_194911.htm?selectedLocale=en.
- 80 As just one example, NATO’s Multinational Ammunition Warehousing Initiative delivered its first warehouse in Estonia in March 2022. Soon after, Hungary and Romania joined the project. Even if the timing was coincidental, the successful delivery of new facilities gives these two eastern flank allies clear justification for joining the project.
- 81 For example, no data are available on the cost savings made by the seven members of the EATC. See Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 33.
- 82 In 2022, there were 14 out of 26 member states reporting, while in 2021 there were 11. See EDA, *Defence Data*, 15.
- 83 For example, cooperative R&D spending is driven more by multinational companies than government funding (the author is grateful to Kaija Schilde of Boston University for this point).
- 84 According to the political scientist Robert Keohane, “Leadership is indeed essential in order to promote cooperation. . . . We know that in the absence of leadership, world politics suffers from collective action problems.” Keohane, “Hegemony and After: Knowns and Unknowns in the Debate over Decline,” *Foreign Affairs*, July/August 2012, 117-18 (cited in Meijer and Brooks, “Illusions of Autonomy,” 30). See also Luke Glowacki and Chris von Rueden, “Leadership Solves Collective Action Problems in Small-Scale Societies,” *Philosophical Transactions of the Royal Society* 370, no. 1683 (2015): 1-13, <http://doi.org/10.1098/rstb.2015.0010>.
- 85 Others include the NATO framework nations concept (where the United Kingdom, Germany, and Italy lead small group cooperation initiatives), NATO’s enhanced forward presence missions (eight battle group-sized missions, each led by a framework nation), the European Union’s PESCO projects (there are 60 projects, each with a lead nation), and the recent German-led European Sky Shield project. The United Kingdom’s policy led to initiatives including deeper cooperation and joint strategic planning with allies and partners (e.g., the United States, CJEF, and JEF) and putting “NATO at the heart of UK defence” by using NATO doctrine by default. See HM Government, *National Security Strategy and Strategic Defence and Security Review 2015* (London: HM Government, November 2015), 49, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/478936/52309_Cm_9161_NSS_SD_Review_PRINT_only.pdf; and “Development, Concepts and Doctrine Centre,” HM Government, <https://www.gov.uk/government/groups/development-concepts-and-doctrine-centre>.
- 86 See “Multinational Capability Cooperation,” NATO, https://www.nato.int/cps/en/natohq/topics_163289.htm; and “Home,” PESCO, <https://www.pesco.europa.eu/>.

- 87 This could be a NATO Centre of Excellence or follow the model of the European Centre of Excellence for Countering Hybrid Threats and convene a wider membership. See “Hybrid CoE,” European Centre of Excellence for Countering Hybrid Threats, <https://www.hybridcoe.fi/>.
- 88 For example, the United Kingdom’s provision of assurances to Finland and Sweden helped pave the way for their application to NATO. See, for example, Patrick Wintour, “UK Goes Further Than Any Other NATO Country in Sweden and Finland Pledge,” *The Guardian*, May 11, 2022, <https://www.theguardian.com/world/2022/may/11/johnson-security-assurances-sweden-and-finland-not-just-symbolic>.
- 89 For example, France or Sweden are considering supplying an interim fighter while Bulgaria waits for its delayed US F-16s. See Wintour, “UK Goes Further”; and Tim Martin, “Awaiting F-16s, Bulgaria Closes in on Interim Fighter Potentially from Sweden or France,” *Breaking Defense*, November 22, 2022, <https://breaking-defense.com/2022/11/awaiting-f-16s-bulgaria-closes-in-on-interim-fighter-potentially-from-sweden-or-france/>.
- 90 Analysis by the Clingendael Institute makes this point regarding Baltic air policing. See Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 54.
- 91 However, collective action theory suggests political factors can limit the degree of intervention possible. This is because centralized intervention to fund public goods requires taxes, which depend on the political context and public support. Institutional measures to promote defense cooperation (e.g., through NATO or the European Union), therefore, depend on political factors such as unity, solidarity, and support for integration.
- 92 However, collective action theory suggests political factors can limit the degree of intervention possible. This is because centralized intervention to fund public goods requires taxes, which depend on the political context and public support. Institutional measures to promote defense cooperation (e.g., through NATO or the European Union), therefore, depend on political factors such as unity, solidarity, and support for integration.
- 93 The European Union and NATO both play an important role here: the Strategic Concept and Strategic Compass are the North Star of European defense cooperation. They set out a common diagnosis, level of ambition, and priorities agreed through painstaking consensus building. These strategies are turned into coherent national military requirements through multinational defense planning processes: the NATO defense planning process and the European Union’s Capability Development Plan (CDP). See “NATO Defence Planning Process,” NATO, March 31, 2022, https://www.nato.int/cps/en/natohq/topics_49202.htm; “Capability Development Plan,” EDA, <https://eda.europa.eu/what-we-do/all-activities/activities-search/capability-development-plan>; and EDA, *2022 CARD Report*, 10.
- 94 This change could be complemented by reporting on levels of cooperation that would incentivize cooperation, deter free riding, and normalize cooperation.
- 95 Examples include CEDI in central Europe, NORDEFSCO in Scandinavia, the Baltic “B3” format, and the JEF in northern Europe. For a general overview of the promise of minilateral cooperation, see Németh, “Bilateralism and Minilateralism”; and Drent, Wilms, and Zandee, *Making Sense of European Defence*. For analysis of Nordic defense cooperation, see Hakon Lunde Saxi, *Nordic Defence Cooperation after the Cold War* (Oslo: Norwegian Institute for Defence Studies, 2011), <http://hdl.handle.net/11250/99335>; and Nina Græger, “Need to Have or Nice to Have? Nordic Cooperation, NATO and the EU in Norwegian Foreign, Security and Defence Policy,” *Global Affairs* 4 (2018): 4-5, 363-376. For an analysis of Baltic defense cooperation, see Olevs Nikers and Otto Tabuns, “Bureaucratic Policy and Defense Cooperation among the Baltic States,” *Security and Defence Quarterly* 37, no. 1 (2022): 41-54, <https://securityanddefence.pl/Bureaucratic-policy-and-defense-cooperation-among-the-Baltic-states,145571,0,2.html>.
- 96 An example is the JEF Leaders’ Summits. “PM Opening Remarks at JEF Summit: 19 December 2022,” HM Government, December 19, 2022, <https://www.gov.uk/government/speeches/pm-opening-remarks-at-jef-summit-19-december-2022>.
- 97 For example, weighting decisions by their impact on long-term spending, capability, and industry gaps. Structuring incentives away from short-term payoffs exists in many sectors, from the financial industry to environmental regulation. See “EU Steps Up Action to Strengthen EU Defence Capabilities, Industrial and Technological Base,” European Commission, May 18, 2022, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3143.
- 98 Through production, maintenance, and operating costs—particularly for low-specificity items and capabilities.
- 99 These enable nations to consolidate demand and supply by using the same equipment and doctrine.
- 100 Examples of joint procurement and support entities include the Organisation for Joint Armament Cooperation (OCCAR), the NATO Support and Procurement Agency (NSPA), the European Defence Agency (EDA), and the NATO Eurofighter and Tornado Management Agency (NETMA). Examples of dedicated entities for multinational formations include NATO’s Strategic Airlift Command, the European Air Transport Command (EATC), the Franco-German brigade, the Joint Expeditionary Force (JEF) headquarters, Eurocorps, and so on. For example, new bodies will likely be required for the European Union’s proposed European Defence Capability Consortia to meet its potential of enabling joint procurement and collaborative development (“EU Steps Up Action”). For more on the need for dedicated entities to manage joint procurements and the need for a Cooperative Defence Acquisition Management approach for multinational cooperation writ large, see Von Deimling, Glas, and Ekström, “Cooperative Purchasing.”
- 101 For the promise of a single market, see Hartley, “The Future,” 111. Creating a single EU defense market has been described as “the challenge of a century” (Taylor, “A Single Defence,” 18) and as “unattainable due to political and strategic considerations” (Giovanni Faleg and Alessandro Giovannini, “The EU between Pooling & Sharing and Smart Defence: Making a Virtue of Necessity?” *CEPS Special Reports*, May 23, 2012, <https://ssrn.com/abstract=2065198>).
- 102 An EU study of the implementation of Directive 2009/81/EC on defence and security procurement found that “in 84% of cases, the selected supplier is based on national territory.” See Directorate-General for External Policies Policy Department, *Impact of the “Defence Package,”* 6.
- 103 The current EDF package offers €8 billion in economic incentives to cooperate. It includes €2.7 billion to fund joint research and €5.3 billion to cofinance development activity. For an overview of the EDF, see “European Defence Fund,” European Union, https://defence-industry-space.ec.europa.eu/eu-defence-industry/european-defence-fund-edf_en. The March Versailles declaration was followed in May by the Defence Investment Gaps Analysis, which proposed new ways to address gaps in spending, industrial capacity, and capabilities cooperatively, backed by financial instruments (see “Versailles Declaration”). EDIRPA was launched by the commission in July, with a budget of €500 million over the next two years to support cooperative initiatives that address critical gaps arising from

- member states' support to Ukraine. This will pave the way for an EU framework for joint procurement supported by EU funding and tax exemptions (see "Defence Industry: EU to Reinforce the European Defence Industry through Common Procurement with a €500 million Instrument," European Commission, July 19, 2022, https://ec.europa.eu/commission/presscorner/detail/en/IP_22_4491).
- 104 See, for example, Besch, "EU Defense"; Giegerich and Sabatino, "The (Sorry) State"; Lawrenson, "Russia's War"; and Marone et al., "Collective Defence Investment."
- 105 As a proportion of the reported spending increases by EU member states since Russia's invasion (€200 billion), the EDF incentive is 4 percent while the EDIRPA is 0.25 percent. (This is an indicative comparison only to new—not total—defense spending across the European Union, to give a sense of the scale. For the €200 billion figure, see "EU Steps Up Action." See also the letter by 10 experts who make the same point: Marone et al., "Collective Defence Investment." As a crude comparison, since 2018 the U.S. European Recapitalization Incentive Program (ERIP) has invested \$277 million to incentivize \$2.5 billion in arms sales. As a proportion, this is over 11 percent: nearly three times larger than the EDF and 44 times larger than EDIRPA. This is an imperfect but illustrative comparison. For more on ERIP, see "European Recapitalization Incentive Program (ERIP)," U.S. Department of State, December 6, 2021, <https://www.state.gov/european-recapitalization-incentive-program-erip/>).
- 106 Max Bergmann and Benjamin Haddad, "Europe Needs to Step Up on Defense," *Foreign Affairs*, November 18, 2021, <https://www.foreignaffairs.com/articles/europe/2021-11-18/europe-needs-step-defense>. They argue the European Union should borrow the money to incentivize cooperation based on the model pioneered by the €750 billion NextGenerationEU fund coronavirus recovery package. Others suggest, "European countries have a good credit rating and can raise funds quite easily on the market." Alexandra Marksteiner, "Europe's New Reality: Defence Spending after the Invasion," *Green European Journal*, August 16, 2022, <https://www.greeneuropeanjournal.eu/europes-new-reality-defence-spending-after-the-invasion/>.
- 107 Total assistance is around €100 billion, of which €52 billion is from EU countries and institutions (including to the European Union's new €18 billion macro-financial assistance package). See "Ukraine Support Tracker," Kiel Institute, <https://www.ifw-kiel.de/topics/war-against-ukraine/ukraine-support-tracker/>.
- 108 "Funding NATO," NATO, January 12, 2023, https://www.nato.int/cps/en/natohq/topics_67655.htm. Examples include agencies for NATO's Airborne Early Warning and Control capability (NAPMA), the NH90 Helicopter program (NAHEMA), and the Eurofighter-Typhoon and Tornado fighter jet programs (NETMA).
- 109 NATO leaders endorsed DIANA in Madrid to foster cooperation and harness innovation in the private sector and academia across allied nations. It will engage industry and academia through "Challenge Programmes," through which successful innovators will benefit from access to accelerator sites, test centers, sector expertise, contract opportunities, and financing. Pilot activities will begin in 2023 and become fully operational in 2025. See "Emerging and Disruptive Technologies," NATO, December 8, 2022, https://www.nato.int/cps/en/natohq/topics_184303.htm. The Innovation Fund is billed as the world's first multisovereign venture capital fund. It is designed to provide strategic investments in start-ups developing dual-use emerging and disruptive technologies in critical areas, which 22 allies will contribute to and benefit from. See "NATO Launches Innovation Fund," NATO, June 30, 2022, https://www.nato.int/cps/en/natohq/news_197494.htm.
- 110 This may meet initial resistance with North American allies (for example, over defense industry access), but if implemented, it would address the wider shared goal of a stronger and more capable European defense. See "Joint Statement on the Phone Call between President Biden and President Macron," The White House, September 22, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/22/joint-statement-on-the-phone-call-between-president-biden-and-president-macron/>. Alexander Vershbow, a previous NATO deputy secretary general, and Hans Binnendijk have argued along these lines, urging the United States to support practical measures to strengthen the European pillar of NATO. See Binnendijk and Vershbow, "Needed: A Trans-Atlantic Agreement on European Strategic Autonomy," *Defense News*, October 10, 2021, <https://www.defensenews.com/global/europe/2021/10/10/needed-a-transatlantic-agreement-on-european-strategic-autonomy/>.
- 111 National contributions to common funding are based on a cost-sharing formula that takes into account allies' gross national income (GNI). Examples include NATO's headquarters, its military command structure, and the NATO Security Investment Program. See "Funding NATO."
- 112 Examples include NATO's Strategic Airlift Capability, NATO's fleet of Boeing E-3A Airborne Warning and Control System (AWACS) aircraft, and remotely piloted RQ-4D "Phoenix" Allied Ground Surveillance fleet. For more detail, see "Strategic Airlift," NATO, November 9, 2022, https://www.nato.int/cps/en/natohq/topics_50107.htm; "AWACS: NATO's 'Eyes in the Sky,'" NATO, March 3, 2022, https://www.nato.int/cps/en/natolive/topics_48904.htm; and "Alliance Ground Surveillance (AGS)," NATO, July 20, 2022, https://www.nato.int/cps/en/natohq/topics_48892.htm. One example under development is the Alliance Future Surveillance and Control initiative, which will replace AWACS from 2035. It is funded through the (commonly funded) NATO Security Investment Program, run by the NATO Support and Procurement Agency, and multinational by design, with firms from six allies delivering concept studies in 2020 that could meet the requirement "through a combination of national, multinational, and NATO-funded solutions." See NATO, *Alliance Future Surveillance and Control* (Brussels: NATO, July 2020), https://www.nato.int/nato_static_fl2014/assets/pdf/2020/7/pdf/200701-Factsheet_Alliance_Future_Surveil-1.pdf.
- 113 The Multirole Tanker Transport project is procuring and operating a fleet of up to nine Airbus A330 aircraft through the NSPA, with the support of OCCAR (<http://www.occar.int/>).
- 114 Unlike the EDF (which is currently limited to funding R&D activities, not acquisition), this approach could go beyond concept and development activity to fund the joint acquisition and operation of capability that has already been proven by the AWACS, strategic airlift, AGS, and Multirole Tanker Transport programs. See "European Defence Fund."
- 115 Increased common funding was cited as one outcome of the Madrid summit, but official details are scant. One source suggested discussion of a budget of \$31 billion over the next eight years. If true, this would represent a significant increase of over 60 percent per year based on NATO's current annual budget of direct spending of \$2.5 billion (which includes common and joint funding). See "Funding NATO". See also Von Thomas Gutschker, "Last-Minute-Diplomatie vor Treffen der NATO," *Frankfurter Allgemeine*, June 27, 2022, <https://www.faz.net/aktuell/politik/nato-erweiterung-durchbruch-in-verhandlungen-mit-der-tuerkei-18133013.html>; and Finn-Ole Albers, "Key Takeaways from the 2022 NATO-Summit

- in Madrid,” Warsaw Institute, June 30, 2022, <https://warsawinstitute.org/key-takeaways-2022-nato-summit-madrid/>.
- 116 As the Clingendael Institute suggests, “While multinational defence cooperation has expanded over the years, relatively few publications have been dedicated to the question ‘which are the success and fail criteria?’” Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 3. This fact indicates further work is required in this important area.
- 117 Primarily based on Valasek, *Surviving Austerity*; and Zandee, Drent, and Hendriks, *Defence Cooperation Models*. These factors are limited in several important ways—hence the need for further work in this area. They are generalized rather than differentiated to account for different types of cooperation (see above). Valasek’s findings are mainly concerned with pooling and sharing, while the Clingendael Institute’s are based on military operational examples. The Clingendael Institute’s analysis cites Valasek’s and reiterates many of his findings. The empirical basis of these insights is limited, though Valasek’s insights are based partly on expert interviews and the Clingendael Institute’s assessment uses five examples of cooperation to validate its insights.
- 118 Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 4.
- 119 *Ibid.*, 56.
- 120 According to EATC’s commander, the key to the EATC’s success is “mutual trust and confidence at all levels. Nations are only willing to pool and share assets and other resources if this condition is fulfilled. Trust and confidence are not a given fact. It is a sustained, long-term effort.” See “European Air Transport Command,” special issue, *Military Technology Magazine* 45 (2021), 4, https://eatc-mil.com/uploads/page_contents/Magazine/MT-EATC%202021%20-%20LowRes.pdf.
- 121 Valasek, *Surviving Austerity*, 22.
- 122 Monaghan and Arnold, “Indispensable,” 5–8.
- 123 For example, “when it comes to complex and multi-functional capabilities—such as in a combat brigade—binationality is the preferred option.” See Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 57.
- 124 See, for example, Steven Blockmans and Dylan Crosson, “PESCO: A Force for Positive Integration in EU Defence,” *European Foreign Affairs Review* 26 (2021): 99–101. As they state, “Strategic culture alignment can explain cooperation among certain Member States within PESCO. . . . Other variables could also partially explain why states participating in PESCO prefer each other as partners. Chief among these is geography.”
- 125 Monaghan and Arnold, “Indispensable,” 4, 6; and Tormod Heier, “Chapter 8. Britain’s Joint Expeditionary Force: A Force of Friends?” in *The United Kingdom’s Defence after Brexit*, eds. Rob Johnson and Janne Haaland Matlary (London: Palgrave Macmillan, 2019), 189–214.
- 126 Valasek, *Surviving Austerity*, 21; Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 56.
- 127 Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 58.
- 128 *Ibid.*, 58. As Valasek puts it, “If co-operation is to leave both partners satisfied, there has to be clarity and agreement from the beginning of the discussions among partners on what purpose the initiative is to serve.” Valasek, *Surviving Austerity*, 26. A study by CSIS on joint development programs also identifies this factor as crucial to the success of joint projects. Sanders and Hunter, *Designing and Managing*.
- 129 Sanders and Hunter, *Designing and Managing*. One example is the NATO framework nations concept, where a clear, agreed vision seems to have helped the JEF, while mixed or absent intent in the German- and Italian-led framework nations’ efforts may have played a role in their limited progress to date. Monaghan and Arnold, “Indispensable,” 5–8.
- 130 One useful analysis with this in mind is the European Council on Foreign Relations’ European Sovereignty Index, which assesses EU member states’ commitment to (and capabilities to carry out) a range of domains, including defense. See “European Sovereignty Index.”
- 131 Existing analysis covers a range of successful cooperative formations that feature symmetry (e.g., Franco-German brigades) and asymmetry (e.g., Belgian-Dutch naval cooperation and EATC). See Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 57. Asymmetry can undermine cooperation because it “raises fears of one side ‘dominating’ the other and ignoring the smaller party’s needs, thus undermining the all-important trust.” Valasek, *Surviving Austerity*, 26.
- 132 Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 58. Their example is the shared operation, training, and maintenance of mine hunter ships under Benesam, which depends on both nations procuring the same ships. Misaligned plans and resources undermine cooperation, as shown by delays and reduced orders on the FREMM frigate, TIGER helicopter, and A400M programs: “The lack of coherence between material and budgetary programming is a major difficulty.” Vagt, *Solving the European Defence*, 56.
- 133 Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 58.
- 134 Valasek, *Surviving Austerity*, 23–24.
- 135 On the one hand, U.S. exports to Europe provide advanced capabilities at reasonable cost (without having to fund R&D, etc.). On the other, the United States often opposes the integration and consolidation of Europe’s defense industry and exerts influence through strict export controls. In the case of the latter, common export rules have the potential to enhance prospects for cooperation by maximizing the chances of export success. As one analysis puts it, “Defining a joint approach to weapon exports is a sine qua non condition for successful cooperation.” Vagt, *Solving the European Defence*, 56.
- 136 These include increasing trust between members, developing a common identity, facilitating transparency and information sharing, removing uncertainty (through repeated interactions between group members), and so on. See Robert O. Keohane, “Twenty Years of Institutional Liberalism,” *International Relations* 26, no. 2 (2012): 125–38, <https://doi.org/10.1177/0047117812438451>.
- 137 See Oliver and Marwell, “The Paradox.” Valasek suggests institutions can help in four ways: by changing mindsets (to favor cooperative solutions), creating incentives to cooperate (political, economic, and military), removing barriers, and directly managing pooled capabilities (e.g., NATO’s AWACS fleet, the European Union’s SitCent). Valasek, *Surviving Austerity*, 34–39. The Clingendael Institute sees a critical role for institutions to enable specialization—for example, in providing the collective guarantees and solidarity that underpin NATO’s Baltic air policing. Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 59.
- 138 Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 57–60.
- 139 As Csiki and Németh put this, “The willingness for co-operation is further strengthened by financial pressures, the lasting scarcity of resources and the possibility of mid- and long-term cost effectiveness that arises from the pooling and sharing of capabilities.” Csiki and Németh, “On the Multinational Development of Military Capabilities,” *European Geostrategy*, June 2012, 8. For example, the cost saving rationale was used to justify the Benesam naval cooper-

ation between Belgium and the Netherlands (Zandee, Drent, and Hendriks, *Defence Cooperation Models*, 40), NATO's Smart Defense, the European Union's Pooling and Sharing cooperation initiatives, and NATO's HVPs.

- 140 “14 NATO Allies and Finland Agree to Boost European Air Defence Capabilities,” NATO, October 13, 2022, https://www.nato.int/cps/en/natohq/news_208103.htm.
- 141 Simon, “Don’t Believe the Hype.”
- 142 Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2007).
- 143 Lucia Retter et al., *European Strategic Autonomy in Defence* (Santa Monica, CA: RAND Corporation, 2021), vi, https://www.rand.org/content/dam/rand/pubs/research_reports/RRA1300/RRA1319-1/RAND_RRA1319-1.pdf.
- 144 Ibid. “It is frequently recognised in policy reports that the recent impetus behind promoting European strategic autonomy has been closely associated with the perceived unreliability of the U.S. during the Trump administration.”
- 145 Ibid., iv.
- 146 The typology is summarized below. More detail will be provided in a future report to explain it in full. It is based on a literature review of various sources (see figure 4).
- 147 This typology will be explained in more detail in a future report, along with examples of each cooperation type. Key sources include Mark Lorell and Julia Lowell, *Pros and Cons of International Weapons Procurement Collaboration* (Santa Monica, CA: RAND Corporation, 1995), https://www.rand.org/pubs/monograph_reports/MR565.html; Danny Pronk, Dick Zandee, and Adája Stoetman, *Identity, Industry and Interoperability: The Drivers of European Armaments Collaboration* (The Hague, Netherlands: Clingendael, 2022), https://docs.clingendael.org/sites/docs/files/2022-02/Drivers_European_Armaments_Collaboration%28Jan%202022%29.pdf; Kanninen and Lehtonen, “Cooperative Procurement”; Sanders and Hunter, “Designing and Managing”; Zandee, Drent, and Hendriks, *Defence Cooperation Models*; Csiki and Németh, “On the Multinational Development”; Zandee, “European Defence”; Zandee and Stoetman, *Specialising in European Defence*; and Valasek, *Surviving Austerity*.