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Zeitenwende: The Bundeswehr's Paradigm Shift

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Élie TENENBAUM Léo PÉRIA-PEIGNÉ The French Institute of International Relations (Ifri) is a research center and a forum for debate on major international political and economic issues. Headed by Thierry de Montbrial since its founding in 1979, Ifri is a non-governmental, non-profit foundation according to the decree of November 16, 2022. As an independent think tank, Ifri sets its own research agenda, publishing its findings regularly for a global audience.

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Couverture: A Canadian Armed Forces Leopard tank assaults enemy forces during Exercise Common Ground at Camp Petersville in the 5th Canadian Division Support Base Gagetown training area, on November 21, 2018. © AB Zach BarrCanadian, Army Trials and Evaluations (CATEU), Gagetown.

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Focus stratégique

Resolving today's security problems requires an integrated approach. Analysis must be cross-cutting and consider the regional and global dimensions of problems, their technological and military aspects, as well as their media linkages and broader human consequences. It must also strive to understand the far-reaching and complex dynamics of military transformation, international terrorism and post-conflict stabilization. Through the "Focus stratégique" series, Ifri's Security Studies Center aims to do all this, offering new perspectives on the major international security issues in the world today.

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Abstract

Russia's invasion of Ukraine on February 24, 2022, marked a turning point in German defense policy. After thirty years of military downsizing, the Bundeswehr found itself at an extremely low capability level just as a high-intensity war involving a great power was breaking out on Europe's doorstep for the first time since 1945. Chancellor Olaf Scholz's response was to embrace this "turning point" (*Zeitenwende*) by launching a major program to reequip Germany's armed forces.

However, this change is part of a longer trend that started after the first wake-up call in 2014, following which Germany began tentatively to rebuild its military power. Under American pressure to share the defense burden, the new government that took office in 2021 included in its coalition agreement a national security strategy and an increase in defense spending. The war in Ukraine precipitated these decisions, combining the urgent need to provide arms with the more gradual pace of a long-term rearmament program.

In order to implement this rearmament plan, Olaf Scholz's government set up a special fund (Sondervermögen) of €100 billion, financed by debt and dedicated entirely to the procurement of new materiel for the Bundeswehr. The fund covers the three domains of combat (air, sea, and land), as well as a special focus on the command and digitization of forces. It is in addition to a regular budget that is also planned to increase to eventually reach the target of 2% of GDP set by NATO. Despite a slow start, caused by inefficiencies within the Bundeswehr's procurement agency (BAAINBw), the new minister of defense, Boris Pistorius, took political control of the process, which should allow reform of the system and result in faster procurement.

The Bundeswehr faces three major structural challenges. The first is a low readiness rate caused by a maintenance backlog and inadequate implementation processes. The second relates to human resources: despite funding for the creation of more than 20,000 additional posts, the Bundeswehr is unable to recruit and retain its personnel. The country's dwindling population and the perception of an underfunded and underequipped organization significantly undermine the ability to retain recruits. The third and final challenge lies in a strategic culture that is still struggling to take on board the new duties of a warfighting military.

The Army (*Heer*) is the Bundeswehr's main branch and the service that encapsulates its primary purpose. Organized into three divisions, it is currently facing the significant challenge of increasing its numbers and readiness so that it can create a NATO-type army corps with all the organic elements needed to allow it to integrate its partners. It is also facing a wide range of capability challenges: the Puma infantry fighting vehicle is encountering a host of problems, the future of main battle tanks is on hold as a result of the industrial dispute between Rheinmetall and Krauss-Maffei Wegmann (KMW), while uncertainty surrounds the replacement of helicopters and surface-to-air defense support.

The Air Force (*Luftwaffe*) now accounts for the lion's share of the special rearmament fund, as a result of the decision to acquire Lockheed Martin's F-35A *Lighnting II* fighters to replace some of the *Tornados* it bought in the 1980s. This decision, which was criticized in some quarters in France, was nonetheless imperative in view of the need to continue the deterrence mission with the United States within NATO's nuclear sharing arrangement. It does, however, raise important questions about the nature of future needs, particularly in the context of the Future Combat Air System (FCAS) in partnership with France and Spain. Finally, a major investment in air defense within the European Sky Shield Initiative should remedy a weakness in Germany and Europe, albeit at the cost of off-the-shelf procurements that raise questions about industrial strategy.

Finally, the Navy (*Deutsche Marine*) remains the poor relation of the three branches of the Bundeswehr. However, in an attempt at cohesiveness, it has decided to focus on the Baltic Sea, where it can claim to be an integrating force for its neighbors with even more limited resources. It should also be able to reduce the low readiness levels that previously hampered it, thanks to the procurement of new maintenance facilities of its own. Last but not least, it is firmly committed to drone technology and has a project to link all its major platforms to unmanned systems to enable it to increase its impact while minimizing personnel costs.

Another distinctive feature of the Bundeswehr is the four ancillary services dedicated to logistics, cyber defense, information systems, and medical support. These corps, which are significantly larger in the Bundeswehr than in its partner armies, are set to evolve to allow a greater role for logistics and digitization.

In addition to capability modernization, the *Zeitenwende* is founded on significant ambition within NATO. The North Atlantic Alliance remains the fundamental framework for the Bundeswehr, both on a conceptual and a doctrinal level. Since 2014, in recognition of the

increased importance of collective defense within the Alliance, Germany has been implementing an innovative "framework nations concept" (FNC). This has enabled it to assemble an operational and capability clientele of twenty or so Northern and Eastern European countries that the Bundeswehr aspires to integrate to varying degrees under its leadership. NATO commands now exist for each component, as well as capability clusters that are mirrored by other projects supported by Germany as part of the European Union's Common Security and Defense Policy (CSDP).

Finally, this multilateral integration is underpinned by a robust network of bilateral cooperations. The first and most important of these is undoubtedly with the United States; this relationship is carefully cultivated by Berlin despite the tensions caused by American frustrations with German shortcomings on defense issues. A very different approach characterizes the relationship with the Northern European countries, especially the Netherlands, the relationship in this case based on significant integration of the countries' reduced armed forces within a Bundeswehr command system, all supported by capability cooperation. Lastly, the Central and Eastern European countries present a less complete but equally promising project for greater integration, and one that is particularly useful since, at the strategic level, it means that Germany is acknowledged as a contributor to NATO's deterrence and defense posture.

All of these considerations bring us to an assessment of the implications of such a change for France, both in its partnership with Germany and at the European and transatlantic level. It must be acknowledged that, despite numerous attempts to revitalize the Franco–German defense relationship, it currently generates more frustration than cooperation. However, there is too much at stake for France's credibility in Europe for it not to respond to the challenge posed by the *Zeitenwende*.

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Introduction

"You wake up in the morning and realize that there is war in Europe [...] and that the army that I have the privilege of leading is more or less empty-handed, to the extent that the political options we can offer to support NATO are extremely limited. [...] We all saw it coming and were unable to put forward our arguments, to draw conclusions from the annexation of Crimea and implement them".¹ This was the lament of General Alfons Mais, the chief of staff of the German Army (*Heer*) on February 22, 2022, commenting on the shock caused by the Russian invasion of Ukraine.

After years of German military downsizing characterized by shrinking budgets and reduced numbers—down approximately 60% since 1991—, leading eventually to a minimal posture primarily focused on stabilization and peacekeeping operations, the annexation of Crimea in 2014 sounded an early warning. Berlin was the target of criticism at the NATO summit in Newport, Wales, but made amends by pledging to increase its military spending from €33 billion to €56 billion by 2021, a figure that is still well short of the target of 2% of GDP to which NATO members are committed. This incremental increase was accompanied by a gradual shift toward collective defense missions for the Alliance, without calling into question Germany's substantial economic and above all energy partnerships with Russia.

Russia's invasion of Ukraine, which began on February 24, 2022, demonstrated the gap between the recovery effort that had already been undertaken and the work required to provide Germany with a credible army against a backdrop of strategic competition. The need to reestablish a proactive defense policy, departing from three decades of chronic underinvestment, became a harsh reality in Berlin. Three days after the start of the conflict, Chancellor Scholz gave a historic speech to the Bundestag, in which he declared that "February 24, 2022 marks a watershed (*Zeitenwende*) in the history of our continent". Using powerful language, Scholz declared his intention to make the Bundeswehr the best-equipped conventional military in

^{1.} L. Lagneau, "Selon son chef, l'armée de terre allemande ne pourra soutenir l'Otan que d'une façon 'extrêmement limitée'", *Zone militaire*, February 24, 2022, www.opex360.com. LinkedIn post, https://www.linkedin.com.

^{2.} Die Bundesregierung, "Policy statement by Olaf Scholz, Chancellor of the Federal Republic of Germany and Member of the German Bundestag, 27 February 2022 in Berlin", www.bundesregierung.de.

Europe and announced a special fund (Sondervermögen) of €100 billion, intended to finance future major military procurement programs.³ In order to circumvent the "debt brake" enshrined in Germany's Basic Law, the purpose of which is to balance the public finances, this special fund requires an amendment to the constitution. The fund is designed to bring about a fundamental transformation of the Bundeswehr's structure, putting behind it for now the era of expeditionary operations to return to continental defense as its primary objective.

This transformation goal might be seen as ambitious at a time when the *Heer* regards itself as structurally weak, the *Deutsche Marine* has recently experienced significant readiness problems, and the *Luftwaffe* has stated that it urgently needs to replace its ageing Tornados. The three branches of the armed forces are also experiencing major human resources difficulties, in recruitment and retention of personnel with the most advanced skills, even though the chancellor announced that he wanted to "keep pace with new technology".

To this end, there have been announcements of a large number of off-the-shelf procurements from both the American and Israeli defense industries, particularly in the aviation sector, with the procurement of fighter aircraft, helicopters, and drones. These announcements have created a certain amount of discontent within the German defense industry, which is still a major player, particularly in land-based armaments. In addition to the land-based armaments giant Rheinmetall, companies such as MTU and Airbus Germany have expressed their fear that the benefits of the *Sondervermögen* will not be shared equally, with foreign industries gaining the most, even though major national and bilateral projects such as the Main Ground Combat System (MGCS) and the French-Spanish–German FCAS are already underway.

There are also diplomatic implications of the *Zeitenwende*, as it positions Germany as a leading European military actor once again. The country is well integrated into NATO, has built up a network of bilateral and multilateral partnerships, particularly with the Netherlands and the Baltic states, and has achieved a level of integration and interoperability that is far superior to anything found elsewhere in Europe. However, Germany's massive reinvestment in Europe is confronted with a similar rearmament drive in Poland that is challenging Germany's position as NATO's logistics hub in Europe.

^{3.} P. Maurice, "Un 'changement d'époque'? Vers une réorientation de la politique étrangère allemande après l'invasion russe en Ukraine", *Briefings de l'Ifri*, Ifri, March 7, 2022, available at : www.ifri.org.

These developments should encourage reflection in France, at a time when the relationship between Paris and Berlin is struggling to take shape on the military front and when joint industrial projects remain chaotic, to say the least. France needs to take into account Germany's evolving role in its own defense and influence strategy. Paris does not need to call for a French "Zeitenwende", but it must ensure that it retains the link between a European-level aspiration that is sometimes misunderstood by its partners and its own capability decisions, if it is to maintain its credibility alongside a Germany that is set on becoming one of if not the core element of a future "European pillar" of the North Atlantic Alliance.

The dynamics of the watershed moment

After twenty-five years of political neglect of military matters, the conflict in Ukraine has shed a harsh light on the poor state of armed forces. Although the origins Germany's Sondervermögen predate the Ukrainian conflict, the invasion provided the opportunity for a radical change in German defense policy. However, given the scale of the remedial work required, €100 billion may prove insufficient, while the outlook for the regular federal defense budget remains unclear, and the planned procurements will result in a substantial increase in maintenance costs. Even if it proves impossible to complete all the reforms, the changes planned for each branch of the German armed forces will be far-reaching, interrupting the downward spiral that has been underway for the past thirty years and heralding genuine rebuilding, at least in terms of capabilities.

The €100 billion of the *Sondervermögen* represent a significant effort from Germany, which is regularly criticized for its low levels of military spending. The Ukrainian conflict has provided the necessary political impetus, allowing the new governing coalition to undertake a real change in direction, even though it includes parties that are historically anti-militarist, such as the Green Party and, to a lesser extent, the Liberal-Democratic Party (FDP).⁴ With concrete results slow to emerge more than a year after its introduction, uncertainties remain on the sustainability of such an endeavor and the political will to implement it.

The origins of a transformation

German defense policy since 1990

With the fall of the Berlin Wall, reunified Germany was responsible for two militaries with considerable amount of incompatible materiel and no identifiable opponent. In this new situation, the "Two Plus

^{4.} P. Maurice, "Un pacifisme à géométrie variable : Les partis allemands et la participation de la Bundeswehr à des opérations extérieures", *Notes du Cerfa*, No. 160, Ifri, April 2021, available at: www.ifri.org.

Four" treaty signed in September 1990 formalized German unification and set the maximum size of its armed forces at 370,000 service personnel,⁵ compared with 290,000 for the French armed forces in 1991.⁶ Germany took full advantage of the peace dividends, rapidly dropping below this target, and had a force of 250,000 in 2007 despite the fact that conscription was still in place, at a time when France's professional armed forces numbered 260,000.

This military disengagement on the part of Germany is a source of tension within the North Atlantic Alliance, since Europe's leading economic power is accused of opting out of the commitment agreed by NATO's members to devote at least 2% of GDP to military spending. After reaching an all-time low of 1.1% in 2005, Germany's military budget has fluctuated between 1.2% and 1.4%, finally reaching €50 billion in 2021.7 The annexation of Crimea in 2014 came as a shock to Germany, which has since promised to close the gap, but there has never been a strong enough political consensus to make it happen. In the same way as its armed forces, Germany's military budget is highly dependent on its parliament, since any expenditure in excess of €25 millions requires the approval of the Bundestag and the Ministry of Finance, both of which are anxious to balance the books.

The annexation of Crimea was also a military wake-up call for the German armed forces, which at the time were undergoing significant changes. The Bundeswehr was engaged in Afghanistan after 2001 and called upon in Africa, and so was evolving toward a more expeditionary model,⁸ ready to engage in stabilization operations outside Germany and even outside Europe. This evolution, which was similar to the one France and other Western nations embarked on in the 1990s, resulted in a desire for reduced and lighter materiel. This change was also more difficult for a military unaccustomed to operating on foreign soil, as compared to the French armed forces, which have been engaged in Africa for decades.

The 2014 Ukraine crisis was not a significant enough factor to trigger a major change in military posture, however, especially since the general political consensus was still one of cooperation with

^{5.} J.-P. Maulny, "La politique de défense de l'Allemagne : Le post-traumatique est encore loin", *Revue internationale et stratégique*, Vol. 74, No. 2, 2009, pp. 108–113.

^{6.} S. Neitzen, Deutsche Krieger: Vom Kaiserreich zur Berliner Republik—eine Militärgeschichte, Berlin: Ullstein, 2020.

^{7. &}quot;Military Expenditure (% of GDP) – Germany", The World Bank, available at: data.worldbank.org.

^{8.} Major J.P.F. Lepine, "De la guerre froide aux forces expéditionnaires : Les défis à relever pour les forces armées allemandes", *Revue militaire Canadienne*, 2006, available at : www.journal.forces.gc.ca.

Russia through increased trade. Since the early 2000s, when the Petersburg Dialogue between the two countries was established, Berlin has become one of Moscow's principal trading partners. Germany's growing dependence on Russian gas, the low price of which supported its industrial growth, has influenced Germany's pusillanimity with regard to Russia. This conciliatory attitude (known as *Russlandversteher*), embodied by former chancellor Gerhard Schröder more than anyone else, is also rooted in an older legacy of 1970s Ostpolitik that preferred the economic diplomacy of "Wandel durch Handel" (change through trade). 10

This difficulty in accepting the idea of a world—and in particular, a Europe—once again characterized by military power relations and the possibility of a high-intensity confrontation goes some way to explaining the ground lost by the Bundeswehr during the 2010s. During that decade, the aspirations of defense ministers such as Ursula von der Leyen (2013–2019) generally had to fight against high levels of political and administrative inertia. Germany continued to demilitarize while other countries, particularly in Central and Eastern Europe, were beginning to rebuild their forces.

The conflict in Nagorno-Karabakh in 2020 marked a new era for the German armed forces, since the war demonstrated that they were ill-equipped to face the systematic and innovative use of drone platforms by Azerbaijani forces. Lieutenant Colonel Michael Karl¹¹ warned that, in the absence of close-in air defense, the Bundeswehr would "barely have had a chance" in a similar situation. This statement should be placed in context, but it underlined how far behind the Bundeswehr was when it came to the changing nature of conflicts, with Berlin still reluctant to acquire armed drones for ethical reasons.

The "traffic light" coalition and the origins of the Zeitenwende

The so-called "traffic light" coalition¹² was faced with these issues when it came to power at the end of 2021, and so considered the need for a break with the past in the "coalition agreement", which explicitly

^{9.} R. Götz and C. Meier, "Les relations économiques entre l'Allemagne et la Russie", *Politique étrangère*, Vol. 67, No. 3, Ifri, 2002, pp. 697–714, available at: www.persee.fr.

^{10.} S. F. Szabo, "No Change Through Trade", *Berlin Policy Journal*, August 6, 2020, available at: berlinpolicyjournal.com.

^{11.} Dr. V. Eicker, "'Das ist alles keine Science-Fiction mehr'", German Institute for Defense and Strategic Studies, June 12, 2021, available at: gids-hamburg.de.

^{12.} Yellow-green-red in reference to the colors of the FDP, the Grünen (Greens), and Sozialdemokratische Partei Deutschlands (SDP) (Social Democratic Party of Germany).

mentioned a number of defense-related commitments, including the replacement of some capabilities.¹³ The idea of a special fund (Sondervermögen) dates back to a preelection agreement between the groups in the coalition. The aim was to reach a cross-party consensus on the financial resources required to end the Bundeswehr's thirty-year capability drop-off. An estimated figure of €250–€300 billion was agreed to put the Bundeswehr back on track and keep it at a satisfactory technological and capability level, while at the same time upgrading infrastructure and procuring new materiel. As significant as the final sum of €100 billion is, it is primarily intended to make up for the years of decline, rather than providing a real vision of the Bundeswehr in 2030.¹⁴

Also included in the coalition agreement was the publication of a *Nationale Sicherheitsstrategie* (National Security Strategy) that was intended as an ambitious and concerted effort to redefine German foreign, security, and defense policy in Europe and beyond.¹⁵ The drafting process, under the responsibility of the Federal Foreign Office, began in spring 2022 and consisted of a consultation phase (including Germany's principal allies) and a drafting phase that began in the Fall.

Publication of the report was postponed on several occasions, reflecting disagreements concerning the fund, such as the reference to the defense spending target of 2% of GDP, the increase in development aid as a share of military expenditure, and the creation of a National Security Council. In addition to these debates there were administrative and above all political difficulties within and between ministries, and between the ministries and the Chancellery.¹⁶

The document, which was eventually published on June 14,¹⁷ 2023, contains few surprises, the fifteen months of negotiation having smoothed out the rough edges.¹⁸ The Greens were responsible for drafting the document, since they held the Foreign Affairs portfolio. Consequently, the definition of security is very broad, reflecting the party's concerns, and encompasses issues ranging from

^{13.} Interview with German institutional and military stakeholders, March 2023.

^{15. &}quot;Mehr Fortschritt Wagen: Bündnis Für Freiheit, Gerechtigkeit Und Nachhaltigkeit, Koalitionsvertrag zwischen SPD, Bündnis 90/die Grünen und FDP", Die Bundesregierung, available at: www.bundesregierung.de.

^{16.} K.-H. Kamp, "The *Zeitenwende* at Work: Germany's National Security Strategy", *Survival: Global Politics and Strategy*, Vol. 65, No. 3, 2023, pp. 73–80.

^{17. &}quot;Integrated Security for Germany: National Security Strategy", The Federal Government, 2023, available at: www.nationalesicherheitsstrategie.de.

^{18.} J. Lau, "Nationale Sicherheitsstrategie: Ein Ampel-Wohlfühlpapier", *Die Zeit*, June 14, 2023, available at: www.zeit.de.

environmental risk and the protection of the rights of women and minorities to the global governance of agricultural systems. However, the military dimension and the specific role of the Bundeswehr are clearly presented as the main "guarantor of Germany's deterrence and defense capability".

As might reasonably be expected, the protection and defense of the Federal Republic's territory and that of its NATO allies are among the highest priority security objectives. Another key objective is to strengthen the multilateral structures of the North Atlantic Alliance and the European Union—which are placed on an almost equal footing in terms of security—as well as bilateral partnerships: France and the United States are the two allies explicitly mentioned in that respect.¹⁹

Finally, in terms of threats, Russia is clearly designated as "the most significant threat to peace and security in the Euro-Atlantic area". For its part, China continues to be described as "a partner, competitor and systemic rival". A specific strategy dealing with relations with China was also published less than a month after the *Nationalsicherheit Strategie*. ²⁰

Over and above its content, which is unsurprising in a document of this nature, it is its very existence, the tone adopted throughout, and the contrast with the more reticent or pacifist posture of previous documents (the 2016 *White Paper*, for example) which demonstrates the extent to which the *Zeitenwende* has become entrenched in the German political and strategic landscape.

The final shock to the system: Ukraine

An "empty-handed" Bundeswehr

Russia's invasion of Ukraine was the third and most powerful shock to the system. The alarming declaration that Germany's forces were badly short of equipment was followed three days later by Olaf Scholz's speech announcing the various aspects of the *Zeitenwende*, the release of the *Sondervermögen* funds for a "cutting-edge" Bundeswehr, and a German military budget at 2% of GDP. Scholz also stressed the importance of weapons support for Ukraine,

^{19.} B. Schreer, "Germany's First-Ever National Security Strategy", International Institute for Strategic Studies, June 20, 2023, available at: www.iiss.org.

^{20. &}quot;China-Strategie der Bundesregierung", Die Bundesregierung, July 13, 2023, available at: www.auswaertiges-amt.de/.

strengthening Germany's military presence in Eastern Europe within NATO, and an unprecedented effort to make progress with "the development of renewable energies" and to diversify sources of hydrocarbon supply (in favor of the United States and Qatar in particular), with a view to ending Germany's energy dependence on Russia.²¹

This speech represented a profound break with Germany's previous strategic position, which was conciliatory toward Russia and reticent on military matters. This reticence was still obvious a month before the start of the war, when Berlin refused to allow Estonia to transfer old East German howitzers in its possession to Ukraine. ²² A few days later, Germany again made headlines by refusing to send weapons to Kyiv, allowing at most the dispatch of 5,000 helmets and a field hospital, a move that the mayor of the Ukrainian capital denounced as a "joke". ²³

This decision, which was in response to a request from Ukraine, was justified in Berlin's view by the principle adopted in 1971 prohibiting the export of weapons to countries "either involved in armed conflicts or threatened by them". However, the decision damaged Germany's reputation and prompted criticism of the indulgence shown to Russia, making the turnaround in the February 27 speech all the more radical.

Laborious but increasing military support for Ukraine

On February 26, Germany authorized the dispatch of thousands of anti-aircraft and anti-tank missiles, including 2,700 East German Strela short-range surface-to-air missiles. As with the support from the United States, the German contribution increased gradually, with Ukrainian requests for heavier materiel examined and debated at length before being granted. After agreeing to send PzH-2000 self-propelled howitzers, Berlin refused until mid-fall to allow European countries equipped with German tanks to pass on their vehicles. The arguments put forward by Germany have varied over time, ranging from the need to avoid escalation to the difficulty of training Ukrainian crews with NATO materiel.

^{21.} P. Mennerat, "Le jour où la politique étrangère allemande a changé", *Le Grand Continent*, February 28, 2022, available at: <u>legrandcontinent.eu</u>.

^{22.} L. Lagneau, "L'Allemagne bloque un don de vieux obusiers D30 de conception soviétique à l'Ukraine", *Zone Militaire*, January 25, 2022, available at: www.opex360.com.
23. D. Boffey and P. Oltermann, "Germany's Offer to Ukraine of 5,000 Helmets is 'Joke', says Vitali Klitschko", *The Guardian*, January 26, 2022, available at: www.theguardian.com.

As European pressure mounted—with the German Leopard 1 and 2 tanks the only European fleet capable of supplying a suitable number of vehicles—Berlin eventually retreated, declaring that the United States would have to send main battle tanks of its own before Germany would agree to do so, creating a new wave of harsh criticism of Berlin's opportunistic policy of following rather than leading and renewed suspicion of its pro-Russian bias.²⁴ After lengthy prevarication, authorization for the dispatch of modern main battle tanks was finally granted in late January 2023,²⁵ eleven months after the start of the conflict.

In addition to its own contributions, Germany developed an incentive scheme for its Eastern European partners equipped with ex-Soviet materiel that was easier for the Ukrainian forces to handle. The scheme is known as Ringtausch (circular exchange) and was designed to enable Germany's European partners to replace equipment sent to Ukraine with German materiel drawn from the Bundeswehr's reserve fleets, or with the commitment of German military units in these countries to compensate for the capability gap created. Berlin offered to supply the Czech Republic, Slovakia, and Poland with Leopard 2A4s—an older version—as compensation for sending their T-72s to Ukraine. A number of deals were struck, with Slovakia receiving fifteen Leopard 2s in exchange for thirty obsolete infantry fighting vehicles (IFVs), and Greece forty Marder IFVs in exchange for the same number of Soviet-era IFVs.26 Whereas Greece, the Czech Republic, Slovakia, and Slovenia took advantage of this opportunity, Germany's proposal to Poland heightened existing tensions between the two neighbors, since Warsaw had supplied Ukraine with several hundred tanks and armored vehicles that Berlin would have been hard pressed to replace. This disappointing situation probably contributed to persuading Poland to opt permanently for more "straightforward" suppliers such as the United States and South Korea, purchasing 366 and 180²⁷ main battle tanks respectively from the two countries, with hundreds more Korean tanks to be built in Poland.

^{24.} Lagneau, "L'Allemagne bloque un don de vieux obusiers", op. cit.

^{25.} S. Blanchard, "L'Allemagne accepte l'envoi de chars en Ukraine", *Deutsche Welle*, January 24, 2023, available at: www.dw.com.

^{26.} S. Mitzer and J. Oliemans, "Flawed But Commendable: Germany's Ringtausch Programme", Oryx, September 6, 2022, available at: www.oryxspioenkop.com.

Table I-1: Main equipment supplied to Ukraine by Germany

Date	Type of materiel	Qty	Transfer type
March 2022	9K32 Strela SA-7 anti-aircraft missiles	2500+	Direct donation
March 2022	FIM-92 Stinger anti-aircraft missiles	500+	Direct donation
March 2022	Panzerfaust 3 anti-tank rockets	900+	Direct donation
April 2022	PzH-2000 self-propelled howitzers	14	Direct donation
July 2022	Gepard anti-aircraft tanks	34	Direct donation
July 2022	M270 rocket launchers	5	Direct donation
July 2022	M113 armored personnel carriers	50+	Buyback then donation
September 2022	COBRA counter-battery radar system	1	Direct donation
October 2022	BMP-1 infantry fighting vehicles	70+	Ringtausch
October 2022	T-72 main battle tanks	40+	Ringtausch
October 2022	IRIS-T SLM systems	2	Direct donation
November 2022	Dingo MRAP vehicles	50	Direct donation
January 2023	Marder infantry fighting vehicles	40+	Direct donation
March 2023	Leopard 2A6 main battle tanks	18	Direct donation
April 2023	MIM-104C Patriot (PAC-2) systems	1	Direct donation
July 2023	Leopard 1A5 main battle tanks	20+	Direct donation

Sources: Oryxspioenkop and German Federal Ministry of Defense.

The *Ringtausch* has enabled significant deliveries of materiel to be made, although some qualification is required. For example, some observers have criticized the improvised nature of the procedure, which has resulted in differences in the value of the vehicles exchanged: the forty Greek BMP-1s represent a fraction of the value of the forty German Marders received in exchange. Others have pointed out that the scheme was a way for Berlin to avoid direct engagement with Ukraine, while at the same time picking up new long-term customers for its defense industry.²⁸

German military aid to Ukraine, which began hesitantly, has continued to grow: at the end of July 2023, it stood at €7.5 billion, second only to the United States (around €42 billion) and ahead of the United Kingdom (€6.5 billion). The progress made in eighteen

months is particularly remarkable if one bears in mind the German tradition of opposition to arms exports to countries at war, dating back to the 1970s. In addition, financial aid ($\mathfrak{C}1.3$ billion) and humanitarian aid ($\mathfrak{C}2.4$ billion) also place Germany among the top international donors.²⁹

Extraordinary events and a special fund

High ambitions, but a difficult start

The €100 billion fund was enshrined in Germany's Basic Law as a one-off exercise, in order to safeguard it against opponents concerned about budgetary orthodoxy, while also providing the opposition with a guarantee that this debt-financed shortfall involves genuinely exceptional circumstances.

The fund's scope of application was the subject of considerable debate, with the Greens wanting to include ancillary expenditure linked to the development of new civilian and military capabilities (cyber, climate security, etc.). In the end, the whole of the fund will be used to finance the Bundeswehr's military equipment procurement programs—operating, infrastructure, and personnel expenses are excluded. As a sign of the unusual nature of this budgetary effort, the term *Sondervermögen* is itself a neologism coined for the occasion that caused some misunderstandings when it was first introduced.³⁰

The original plan was for the €100 billion to be allocated in varying amounts to the three branches of the armed forces and to a joint "digitization" item³¹:

Army: €17 billion

Air Force: €40 billion

Navy: €10 billion

Digitization, C2, secondary equipment: €27 billion

This initial allocation formula changed very quickly. In spring 2023, authorized commitment appropriations came to only €61 billion, since some of the requests submitted by the armed forces had not yet been

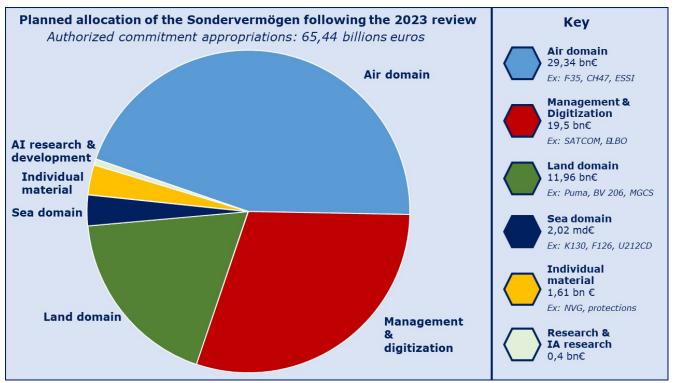
^{29. &}quot;Ukraine Support Tracker", Kiel Institute for the World Economy, available at: www.ifw-kiel.de/.

^{30.} Interview with German institutional and military stakeholders, March 2023.

^{31.} L. Lagneau, "Le fonds de 100 milliards d'euros annoncé par Berlin profitera surtout aux forces aériennes allemandes", *Zone Militaire*, April 2, 2022, available at: www.opex360.com.

examined in depth, and the remainder to be spent was postponed in accordance with the BAAINBw's procurement procedures, expenditure covered by the ordinary budget, and the economic situation.

Figure I-1: Planned allocation of the *Sondervermögen* following the 2023 review



Source: Bundeswehr.

Tensions persist, albeit more discreetly, within both Germany and the coalition parties themselves, as exemplified by the well-known German philosopher Jürgen Habermas, who called on the chancellor to exercise restraint with arms deliveries, while acknowledging Russian responsibility for the ongoing conflict.³² German public opinion itself, while mostly favorable to Kyiv, remains divided over the appropriate level of German support, with some worried that the conflict will spread.³³ The difference between the western *Länder* and those in the former German Democratic Republic (GDR) is striking, with the latter expressing more reservations about supporting Ukraine.³⁴³⁵

^{32.} J Habermas, "A Plea for Negotiations", *Süddeutsche Zeitung*, February 14, 2023, available at: www.sueddeutsche.de.

^{33.} B. Chappedelaine, "L'Allemagne et la Zeitenwende", Institut Montaigne, May 31, 2022, available at: www.institutmontaigne.org.

^{34. &}quot;Divergence: Dans l'est de l'Allemagne, le soutien à l'Ukraine suscite 'méfiance et scepticisme'", *Courrier International*, February 9, 2023, available at: www.courrierinternational.com.

The transformation announced in Scholz's speech was particularly slow to occur in the first twelve months of the conflict, but the change of defense minister enabled the process to accelerate substantially. Boris Pistorius was appointed on January 17, 2023, to succeed Christine Lambrecht, who had resigned. She had been in office for just over a year and was criticized for the tentative nature of German support for Ukraine, a lack of dynamism regarding the Zeitenwende, and a careless personal communication style.³⁶ The German agreement to deliver main battle tanks to Kyiv came less than a week after she left the ministry, following six months of prevarication. Pistorius differs from his predecessor in that he believes he is the person best placed to lead on the Zeitenwende. He currently enjoys a high level of credibility with the various stakeholders, both military and civilian, that we interviewed.³⁷ The opinion polls carried out in May 2023 put him at the top of the list of government ministers, with 30% of respondents stating they were "very satisfied" with him, while 45% of respondents said they were "very dissatisfied" with the chancellor.38

I spend therefore I am

After thirty years of cutbacks in military resources, austerity had become a kind of "corporate culture" in a Bundeswehr that had been reduced to a bare minimum.³⁹ The sudden abundance of resources has shaken up bodies that are more used to saving than spending. In addition, the office responsible for military procurement, the BAAINBw, based in Koblenz, has been criticized for its slow processes and excessive bureaucracy: some mundane procurements can take years and are completed long after the need for them has passed.⁴⁰ The result is a culture of circumvention, where the armed forces are inclined to avoid using its services as much as possible. As well as being based in Koblenz, in western Germany, a long way from the center of German power, the BAAINBw is regarded by the as an overly civilian organization with communication remains difficult.

^{35.} Interview with German institutional and military stakeholders, March 2023.

^{36. &}quot;5000 Helme, ein Helikopterflug, das Silvestervideo—und damit ein Problem für Olaf Scholz", *Der Spiegel*, January 16, 2023, available at: www.spiegel.de.

^{37. &}quot;Durchsetzungsfähig,' 'Besetzung aus der B-Mannschaft,' 'einer unserer Besten'", *Der Spiegel*, January 17, 2023, available at: <u>www.spiegel.de</u>.

^{38. &}quot;Pistorius geschätzt wie sonst kein Minister", Süddeutsche Zeitung, May 15, 2023, available at: www.zeit.de.

^{39.} Interview with German institutional and military stakeholders, March 2023.

^{40. &}quot;Information from the Parliamentary Commissioner for the Armed Forces: Annual Report 2022 (64th Report)", German Bundestag, February 28, 2023, available at: www.bundestag.de.

Detailed breakdown of the German military budget for 2021 Key (46,9 billion euros) Title I - B Title I -25,78 bn€ (55%) A - Materiel maintenance Title I - A 4.53 bn€ B - Human ressources 13,23 bn€ C - D2D operation expenditure 8,02 bn€ **Title II-** 3,4 bn€ (7%) Annual operating expenditure Title IV Titile I-C Title III -12 bn€ (26%) Weapon investment 10,34 bn€ Infrastructures & others 1,89 bn€ Title III - B Title II Title IV -6,4 bn€ (13%) Pensions Title III - A

Figure I-2: Detailed breakdown of the German military

budget for 2021

Source: Bundeswehr, 2021.

One of Boris Pistorius's planned improvements is to "remilitarize" the BAAINBW, a process that is causing considerable concern in Germany. Some German think tanks, such as the German Council on Foreign Relations (DGAP), have proposed giving responsibility for spending the €100 billion special fund to a new, dedicated agency with streamlined procedures to enable faster deployment and to avoid the slow pace of the BAAINBW, making of it an experimental prototype for an in-depth reform of the BAAINBW.⁴¹ A proposal was also made to raise the symbolic threshold of €25 million above which all procurements must be approved by the Bundestag.

Finally, decades of budgetary restraint have impacted the German military infrastructure needed to house and maintain sizable fleets of equipment, with the closure of a large number of bases and arsenals, and the removal of the necessary organic units. The increase in capabilities enabled by the *Zeitenwende* therefore needs to be accompanied by upgrades to this infrastructure and the Bundeswehr's specialist human resources, but these two elements are barely integrated into *Sondervermögen* spending in the former

case and not at all in the latter, because the special fund is dedicated exclusively to the procurement of new materiel. Pistorius seems confident in his ability to reach the $\mathfrak{C}70$ billion per year needed to sustain the impact of the *Zeitenwende* over time.⁴²

€100 billion up to 2027, then what?

Although the *Zeitenwende* seems to be on track, the announcements made by the chancellor and his minister include a number of qualifications. While the €100 billion is a significant amount, it is nevertheless less than half, or even a third, of the estimates made by the coalition prior to 2022, and of those in the annual report on the Bundeswehr produced by Eva Högl, the Parliamentary Commissioner for the Armed Forces, and published in March 2023.⁴³ In addition, this budget will be eroded by high inflation—over 8% in Germany in 2022.⁴⁴ The production costs of new material could increase by as much as a quarter because of rising raw materials and energy prices. Once the procurement covered by the *Sondervermögen* has finished, inflation will also increase the cost of maintaining this material.

As things stand, the special fund, spread over several years, will enable German military spending to reach 2% of GDP until 2027. On top of the €50.4 billion German defense budget for 2022—1.42% of GDP—will be added a tranche of €8.5 billion in 2023, followed by €19.2 billion in 2024, enabling it to reach and stay at the symbolic level of 2%, at least until the next German parliamentary elections in 2027. It will then be for the next parliament to make the political decision to provide the now essential increase to the regular defense budget.

In addition to the *Sondervermögen*, the challenge is therefore to increase the regular defense budget. Since the main credit lines opened up by the special fund will expire at the end of 2026, there will be a significant gap to fill in the defense budget if Berlin intends to keep to the target of 2% of GDP. The force of Boris Pistorius's will ensured that a four-year financing plan was presented to parliament with staggered annual steps of approximately €1.5 billion in order to arrive at a regular budget of €57.4 billion by 2027. Despite all of these

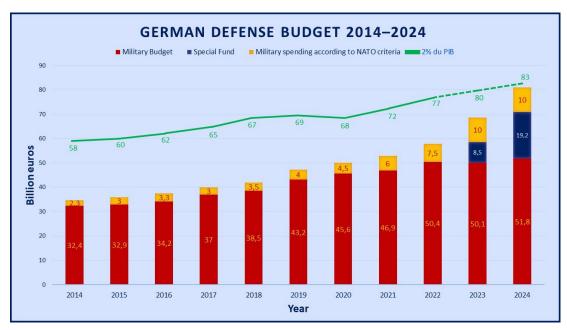
^{42.} Interview with German institutional and military stakeholders, March 2023.

^{43. &}quot;Information from the Parliamentary Commissioner for the Armed Forces", Bundestag, op. cit.

^{44. &}quot;Allemagne: L'inflation a atteint un niveau historique en 2022", *Capital* with *AFP*, January 17, 2023, available at: www.capital.fr.

efforts, this trajectory would still leave the budget €13–17 billion short of the 2% target.⁴⁵

Figure I-3 : Change in the German defense spending since 2014



Source : German Defense Ministry

Some actors remain skeptical about Germany's ability to make the sacrifices required to achieve this. In 2024, defense will take up 20% of the federal budget, which is as much as education ($\[\]$ 20.3 billion), health ($\[\]$ 16.8 billion), development aid ($\[\]$ 11.5 billion), the climate transition ($\[\]$ 10.9 billion), housing ($\[\]$ 6.9 billion), foreign affairs ($\[\]$ 6.1 billion), and the environment ($\[\]$ 2.4 billion) put together. Although these figures need to be qualified to take account of the substantial contributions from the $\[\]$ 2 most of these areas, a major inflection point in German political priorities has now been reached.

Many commentators point to the relative weakening of the sense of urgency that made Chancellor Scholz's initial proposal acceptable at the very beginning of the conflict. After more than a year of war, German opinion on the Ukrainian conflict has undoubtedly changed, though without turning around completely. According to opinion polls, the German public's view on support for Ukraine, which is a product of the *Zeitenwende*, mostly fluctuates between 40% and 60%. Chancellor Scholz's flagging popularity is also probably a consequence of the conflict and of the sanctions imposed on Russia, which have

created high inflation, particularly in the energy sector, while the coalition's internal stability is precarious on these issues.⁴⁶

In view of these obstacles, particularly the increase in the regular defense budget to 2% of GDP, pressure from the United States—and from European allies such as Poland—might be a major factor, and even a crucial one, according to some of the stakeholders we interviewed.⁴⁷ The United States is putting pressure on Berlin, suggesting that if Germany does not meet its military obligations, or if it does not provide some leadership on capabilities in Europe, American resources would be better deployed elsewhere, particularly in order to respond to China.

Rebuilding the Bundeswehr and preparing for the future

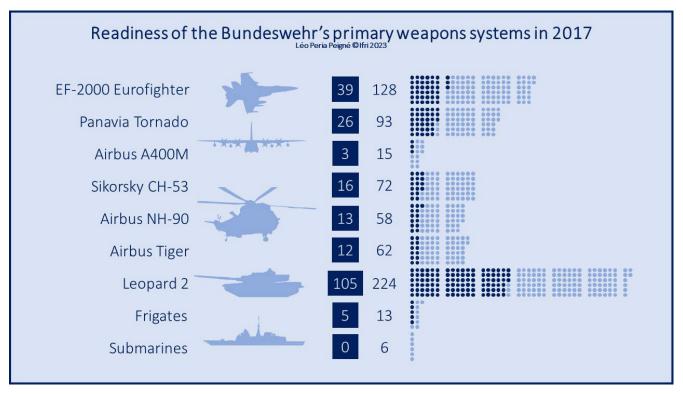
The €100 billion Sondervermögen will not be able to address all the weaknesses in Germany's military, but it does herald an genuine transformation of both the organization and equipment levels of the armed forces. The Bundeswehr is aiming to increase troop numbers from 180,000 in 2022 to 203,000 by 2031, an ambitious goal in light of the glaring human resources problems in an aging country. The Heer is seeking an autonomous army corps that is better integrated within NATO. The Luftwaffe is preparing for the arrival of F-35 fighter aircraft and anti-aircraft defense systems from 2027 onward, their procurement having been confirmed in late 2022. And in late March 2023, the Deutsche Marine presented an ambitious project for a fleet made up of one-third new-generation naval drones by 2035. These transformations of the three branches of the armed forces form part of a coherent German strategy focused on membership of the North Atlantic Alliance and on territorial defense.

A backlog and significant shortages

Low rates of operational readiness

On the eve of the war in Ukraine, the state of the Bundeswehr was regarded as alarming, with budget increases since 2014 only making its downward slide less steep.⁴⁸ In 2018, a government report mentioned very poor rates of operational readiness for major systems. In effect, at the same time that the oldest materiel was reaching the end of its useful life, some of the more modern systems were struggling to meet their targets: in 2017, the Marder armored vehicles from the 1970s achieved readiness levels of 66%, while their replacement, the Puma, introduced the previous year, did not manage 50%. As for the Luftwaffe, the Tornados from 1981 and the Eurofighters from 2004 had similar readiness levels, at below 50%.

Figure II-1: Readiness of the Bundeswehr's primary weapons systems in 2017



Source: Report on the Operational Readiness of the Bundeswehr's Primary Weapons Systems, 2017.

After finding itself in such a difficult position, the Federal Ministry of Defense decided to classify the detailed figures. However, the ministry's 2021 report suggests that the overall readiness of the seventy-one major systems it examined had stabilized at 77%, with around ten systems, many of them older ones, remaining below 50%.⁴⁹ Improving operational readiness is most difficult with helicopters, a problem shared by other militaries, including that of France, because the most modern machines, such as the NH90, have appalling readiness rates, sometimes below 20%.

It is important to qualify these seemingly encouraging figures, however, because they are the result of statistical practices that artificially reduce the inventory base from physical stock to "available stock" that form the basis for calculating readiness rates. The newspaper *Der Spiegel* explained the questionable methods used by the logistics services to artificially increase systems' readiness rates:

^{49. &}quot;Bericht zur materiellen Einsatzbereitschaft der Hauptwaffensysteme der Bundeswehr II: Teil 1", Bundesministerium der Verteidigung, December 15, 2021, available at: www.bmvg.de.

[In 2022], the Bundeswehr's confidential internal database listed a total inventory of 119 "Panzerhaubhitze 2000" howitzers. Exactly 56 of these were declared to be ready for deployment, less than half—yet the databases showed a readiness rate of 65.9 percent. The trick: the 34 howitzers that are currently being serviced, and therefore can't be used, simply aren't included in the calculation. In the case of the Puma armored fighting vehicles [...], the figures are even more absurd. [In 2022], only 137 of the 350 vehicles were operational [i.e., 39 percent], even though the forces reported a 57.4 percent readiness rate internally. Given such mathematical trickery, it is quite possible that military planners themselves aren't aware of the true condition of the German military.⁵⁰

Improvements do, however, appear to be underway. The first time the Bundeswehr took charge of the Very High Readiness Joint Task Force (VJTF), part of the NATO Response Force, in 2015, the units it committed were forced to take material from the rest of the army in order to obtain 15,000 pieces of the equipment they needed. However, when the 37th Panzergrenadier Brigade went on VJTF standby in early 2023, it had approximately 80% of the required equipment. Some issues remain, however. For example, the latest readiness report—currently classified but its conclusions have been widely leaked to the press—again indicated a worrying situation.⁵¹

The human resources challenge

Even more problematic than the materiel situation is the position as it relates to human resources. In June 2023, the Bundeswehr had 180,770 men and women with military status, its lowest level since 2018, even though the budget permits (and sets the target for) a force of 203,000 troops, a figure that Pistorius has acknowledged is "ambitious".⁵²

One of the reasons for this shortfall is clearly the country's demographic situation. Although Germany is Europe's most populous country, with over 80 million inhabitants, it has a skewed population pyramid: there are large groups between the ages of 50 and 80, while the cohorts under the age of 30 are at an historic low. In 2018, there were more women aged 80 and over than aged

^{50.} M. Amann, *et al.*, "The Calamitous Errors of Germany's Russia Policy", *Der Spiegel*, February 25, 2022, available at: www.spiegel.de.

^{51.} M. Gebauer and K. von Hammerstein, "An Examination of the Truly Dire State of Germany's Military", *Der Spiegel*, January 17, 2023, available at: www.spiegel.de.

^{52.} T. Wiegold, "Personalprobleme der Bundeswehr: 'Wer nicht schnell genug ist, gerät ins Hintertreffen'", *Augen geradeaus!*, August 2, 2023, available at: <u>augengeradeaus.net</u>.

50-54.⁵³ Broadly speaking, the proportion of Germans under the age of 25 is falling sharply, directly affecting the population that can be recruited into the armed forces.

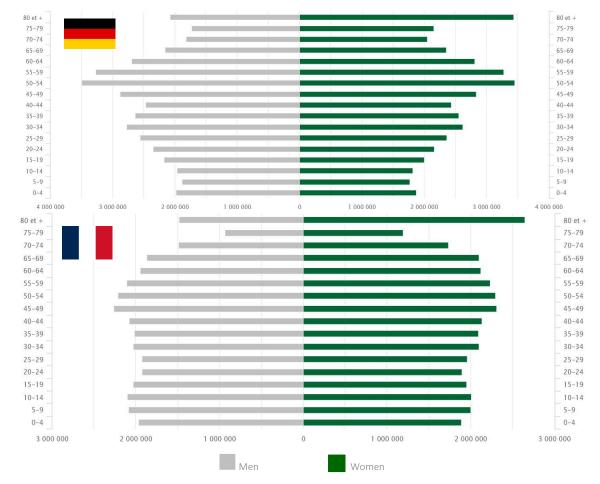


Figure II-2: German and French population pyramids

Source: World Bank.

Sustained industrial growth means that the German labor market is also not very favorable to military careers, which are unattractive despite pay levels above the European average. The Bundeswehr also suffers from considerable societal pressure on service personnel and on uniformed occupations in general, and from a negative image caused by the poor state of its accommodation. Eva Högl's report highlights the deteriorating condition of barracks and quarters, and the direct impact this has on the attractiveness of the armed forces.⁵⁴ Some of the interviewees also highlighted the fact that some members of the population could not see the point of joining the Bundeswehr since they were not convinced of the value of the armed forces. In fact,

^{53.} V. Bellamy, "Un vieillissement plus marqué en Allemagne qu'en France ou au Royaume-Uni", INSEE, June 22, 2017, available at: www.insee.fr.

^{54. &}quot;Information from the Parliamentary Commissioner for the Armed Forces", op. cit.

thirty years after the fall of the Berlin Wall, which is regarded as the last major event to directly affect Germany, young people in the country report that they are not particularly interested in geostrategic world events.⁵⁵ Confronted with a human resources shortage, the Bundeswehr is looking for new solutions, including a type of military contract for European citizens residing in Germany, the country being one of the most attractive for intra-European emigration.⁵⁶

While the issue of remuneration is a constant in attempts to increase the attractiveness of a military career, the situation is different in Germany, where military pay, particularly at the start of a career, is already high. The average monthly pay for enlisted ranks and non-commissioned officers in Germany is over €2,700, excluding bonuses, whereas their French counterparts earn just over €1,800. The basic pay for enlisted personnel in Germany goes up to €2,275 per month, while the equivalent in the French military is below €1,600.57 A French sergent-chef will earn an average of €2,000 per month, while a German Stabsfeldwebel will earn €3,200. Overall, German spending per soldier is 25% higher than in France.58 While it is difficult in these circumstances to increase overall pay significantly, efforts should be made to focus on the most in-demand skilled positions-in electronics, IT, and drones-to make military careers more competitive in skills areas that are already in high demand on the German labor market.

German national sentiment in 2023

The image of a German population that is fundamentally antimilitarist and resistant to military engagement needs to be placed in perspective, to take into account more concrete factors that can explain the Bundeswehr's recruitment problems. While the generations born during the Second World War and their children had a traumatic relationship with military matters,⁵⁹ generational change means that this can now be overcome to a certain extent,

^{55.} U. Franke, "A Millennial Considers the New German Problem After 30 Years of Peace", *War on the Rocks*, May 19, 2021, available at: warontherocks.com.

^{56.} Interview with German institutional and military stakeholders, March 2023.

^{57.} Major R. Schulz, "Comparison of the Salary of European Armed Forces: Is the Bundeswehr with Its Salary in a European Comparison Competitive?", Stiftung Wissenschaft und Politik (SWP), International Security Division, September 2, 2019, available at: euromil.org.

^{58.} R. Bellais, "France et Allemagne, le match dans la défense", *Areion 24 news*, December 11, 2020, available at: www.areion24.news.

^{59.} M. Revue, "Du pacifisme aux missions d'Afghanistan: L'Allemagne entre désir de paix et désir de normalité", in: C. Demesmay and H. Stark (eds.), *Qui sont les Allemands?*, Villeneuve-d'Ascq: Presses universitaires du Septentrion, 2006, pp. 79–96, available at: books.openedition.org.

although variations have been noted in different *Länder* and regions. ⁶⁰ This change, experienced by a number of the stakeholders we interviewed, could be seen in recent demonstrations of patriotism and commitment to the military that would have been unthinkable just a few decades previously. ⁶¹ Germany's victory at the 2014 FIFA World Cup—particularly after the 7–1 semi-final win against Brazil—gave rise to jubilant demonstrations, where the ubiquity of the usually discreet national flag was particularly noticeable.

A more visible military presence, particularly in the mainstream media, is another indication of the military's return to favor. The Bundeswehr's evacuation of more than 5,000 people from Afghanistan in summer 2020 was a critical moment. The operation was regarded as "the most dangerous mission in the Bundeswehr's history" and gave the German armed forces unprecedented media visibility, enabling them to show off their professionalism, while the government was criticized for waiting until the last moment to begin evacuation operations. The images of fully equipped soldiers on the tarmac in Kabul, which is unusual in the German media, marked a particularly important shift, since the units involved (paratroopers and special forces) had previously hit the headlines because of the presence of neo-Nazis in their ranks. This success in Afghanistan was also instrumental in preventing the disbanding of the units that had been under scrutiny.

The percentage of German citizens in favor of a larger defense budget rose from 20% in the early 2000s to 45% in 2019.⁶⁵ The Bundeswehr's involvement in the COVID-19 response also contributed to the growing visibility of the armed forces, reinforcing its image as a useful and legitimate institution. While the German population as a whole remains more cautious than the French or British when it comes to their military, the Bundeswehr enjoys high confidence levels boosted by the Afghan operations and is benefiting from the normalization of German national sentiment that, while still subtle, is real.

^{60.} Interview with German institutional and military stakeholders, March 2023.

^{61.} Interview with German institutional and military stakeholders, March 2023.

^{62. &}quot;Allemagne: À Kaboul, la fin de l'opération 'la plus dangereuse de l'histoire de la Bundeswehr", *Courrier International*, August 27, 2021, available at: courrierinternational.com.

^{63. &}quot;Neo-Nazi Scandal Hits Elite Military Unit", *Deutsche Welle*, January 12, 2019, available at: www.dw.com.

^{64.} L. Lagneau, "Liens avec l'extrême droite: Une unité des forces spéciales allemandes échappe à la dissolution... pour le moment", *Zone Militaire*, November 5, 2020, available at: www.opex360.com.

^{65.} S. Martens, "Quel rôle pour la Bundeswehr?", *Politique étrangère*, No. 3, Ifri, 2021, pp. 121–133.

The Heer: The army corps' goals

Rebuilding and changing the structure of the terrestrial force

Since the early 1990s, the Heer has borne the brunt of personnel cuts: in the mid-1980s, it was the most powerful conventional army in Western Europe, fielding twelve divisions, but these were rapidly reduced to seven by the early 2000s, at the same time as the Heer was having to adjust to new peacekeeping operations. The suspension of compulsory military service in 2011 accelerated the downsizing process, at the same time as units were being disbanded, with the result that just three divisions remain today, and the various army corps structures were also abolished. As also happened in France, significant capabilities were gradually reduced and, in some cases, abandoned, such as close-in surface-to-air defense in 2010. 66 The three surviving divisions are under-resourced, lacking capabilities that are often pooled.

The aim of the new army structure (*Neue Heeresstruktur*), approved by the chancellor as part of the *Zeitenwende*, is to reverse the downward trend of the last thirty years by significantly strengthening the three surviving divisions, turning them into complete units and returning to a position where Germany has a genuine army corps.⁶⁷

Hence, the plan is for each division to regain its organic components—its communications, artillery, operations support, and engineer battalions—capabilities that currently only exist at a reduced scale. Companies will also have to be rebuilt almost from scratch to provide the full spectrum of support for the divisions: surface-to-air defense; military police; chemical, biological, radiological, and nuclear (CBRN) combat; and psychological, electronic, and medical warfare. The timeline for the rebuilding of the German divisions is as follows:

Panzerdivision: scheduled for 2025, this heavy division will combine three German armored and mechanized brigades and one Dutch mechanized brigade, as well as parts of the Franco-German Brigade (FGB).

^{66.} L. Lagneau, "L'Allemagne va livrer des blindés anti-aériens 'Gepard' aux forces ukrainiennes", *Zone Militaire*, April 26, 2022, available at: www.opex360.com.
67. B. Müller, "Neue Heeresstruktur weist den Weg in die Zukunft", *Wir sind die Reserve*, August 8, 2022, available at: www.reservistenverband.de.

- ^{1st} Panzerdivision: scheduled for 2027, a medium/heavy division that will combine three German armored and mechanized brigades and one Dutch light mechanized brigade.
- The Division Schnelle Kräfte (DSK) (Rapid Forces Division): scheduled for after 2030, a light airborne division that will combine the German mountain and parachute brigades with the Dutch air assault brigade, the German special operations brigade, and the German airborne brigade, the latter including a German–British airborne logistics battalion.

Two observations can be made about this project. More than a third of the battalion- and company-level units will need to be formed in order to fill the large number of gaps. Yet the ultimate goal of 203,000 soldiers in the Bundeswehr by 2031,68 which is vital if the Heer's planned units are to be filled, seems difficult to achieve. The other salient point is the high level of integration offered to other European armies.

While military cooperation between Germany and the Netherlands is already very advanced, a joint army corps having been formed as long ago as 1995, links between the two armies look set to become even closer in the years ahead, moving "from cooperation to integration".⁶⁹ France's position in this order of battle is limited, although a structure such as the Franco–German Brigade could serve as a basis for further cooperation. However, the brigade faces awkward integration problems between French and German military personnel, as well as difficulties at the legal level, since it cannot intervene in French overseas operations outside the multilateral framework. With the Hungarian army using German materiel, military cooperation between the two countries is also growing,⁷⁰ and several interviewees have suggested that cooperation similar to that with the Dutch armed forces might be a medium-term objective.⁷¹

In terms of capabilities, the Heer is experiencing a range of issues, including replacing key equipment at the end of its service life, potentially undertaking long-term modernization, and restoring capabilities that were abandoned over the years.

^{68.} F.-J. Meiers, "'Changement d'époque' pour la Bundeswehr—quand on arrive trop tard…", *Allemagne d'aujourd'hui*, Vol. 243, No. 1, 2023, pp. 22–40.

^{69.} L. Lagneau, "Les armées allemandes et néerlandaises sont passées de 'la collaboration à l'intégration", *Zone Militaire*, April 5, 2018, available at: www.opex360.com.

^{70. &}quot;Ungarn und Deutschland rücken enger zusammen", *Militär Aktuell*, July 7, 2019, available at: militaeraktuell.at.

^{71.} Interview with German institutional and military stakeholders, March 2023.

Key 1st PzDivision Division Ž Ž \exists Brigade 0× Regiment 10th PzDivision X Bataillion = Company ____ **Light Division** Foreign brigade 13 1 Foreign regiment × **[**[S] - **3**] **≡** Ustg Kdo FS SS EW T Unit to create **A**-

Figure II-3: Order of battle in the Neue Heeresstruktur

Source: Federal Ministry of Defense, 2023.

Key capability priority: Arming three full divisions

The Puma, manufactured by KMW and Rheinmetall, was meant to replace the Marder tracked IFV that entered service in 1971, but it got off to a difficult start, with repeated delays and cost overruns threatening the Heer's plans to build up its mechanized infantry component. Ordered in 2007 after a decade of development work, the first Pumas were delivered in December 2010, but significant reliability and readiness problems prevented them from entering service until June 2015.

Since the original 2007 order was reduced from 405 to 305 units, a second order was long anticipated but repeatedly postponed because of persistent maintenance problems.⁷² The process was even put on hold following an incident at the end of 2022: when Germany was due to lead NATO's VJTF, none of the unit's eighteen Pumas were ultimately operational, forcing the Heer to deploy its old Marders as replacements.⁷³ The situation was particularly serious since the Pumas in question were part of a batch that had recently been upgraded to meet NATO requirements.⁷⁴ In May 2023, the procurement process was relaunched with a €1.5 billion contract for fifty new vehicles—compared to the hundred or so the industry had been expecting⁷⁵—with an option for a further 180 vehicles still to be confirmed. This is one of the Heer's first major expenditures from the *Sondervermögen*.

At the same time that the Heer is aiming to establish two mechanized divisions, the issue of its future main battle tanks is at the heart of German capability goals. The current fleet of Leopard 2 tanks is being upgraded to the Leopard 2A7 standard, which entered service in 2014, and a first batch of eighteen Leopard 2A8s was ordered by the BAAINBw in May 2023, for delivery from 2026 onward. As with the Pumas, there is an option for a further 105 vehicles. In the long term, if the Heer has a substantial fleet of Leopard 2A8s with an upgraded engine and increased protection, it might question the relevance of the planned French–German tank program, the MGCS, which is experiencing a series of delays and disagreements between the partners.

^{72. &}quot;Lambrecht setzt Nachkauf von Schützenpanzer Puma vorerst aus", *Der Spiegel*, December 19, 2022, available at: <u>www.spiegel.de</u>.

^{73.} L. Lagneau, "Défaillant, le blindé allemand Puma ne sera pas engagé au sein de la force de réaction très rapide de l'OTAN", *Zone Militaire*, December 19, 2022, available at: www.opex360.com.

^{74.} J. Wagner, "Das Puma-Debakel", *Informationsstelle Militarisierung*, January 10, 2023, available at: www.imi-online.de.

^{75.} L. Lagneau, "L'Allemagne va acheter 50 véhicules de combat d'infanterie Puma pour 1,5 milliard d'euros", *Zone Militaire*, May 11, 2023, available at: www.opex360.com.

The MGCS was originally designed around France's Nexter and Germany's KMW and launched in 2012 with the aim of jointly producing a tank by 2040. However, it is experiencing significant difficulties, particularly since the Bundestag insisted on Rheinmetall's involvement in the project in 2019. The addition of a third partner and the very strong rivalry between the firms are making a partnership that was already problematic even more challenging. The turbulent relationship turned stormy at the Eurosatory trade show in June 2022 when Rheinmetall unilaterally unveiled a new model main battle tank, the Panther KF51, that it had designed on its own account. The KF51 is based around a new 130 mm gun and is equipped with an observation drone launcher and increased protection⁷⁶; its designer was quick to present it as an alternative to the MGCS, positioning it as a potential successor to the Leopard 2.

Rheinmetall also adopted an aggressive communication strategy, stating that it might open a KF51 factory in Ukraine; although commentators were doubtful, this nonetheless gave the system a media presence.⁷⁷ Our interviews with German industrial and military stakeholders also revealed a degree of skepticism about the relevance of the MGCS program, the majority believing that Germany had all the necessary skills to develop a successor to the Leopard 2 itself.

The aim of the Common Indirect Fire System (CIFS) project, which was announced alongside the MGCS program in 2016, was to enable France and Germany to develop a joint artillery system to succeed the two nations' 155 mm artillery systems (France's CAESAR and Germany's PzH-2000). The program was meant to be operational around the same time as the MGCS—and even to be developed on a similar chassis—but an announcement was eventually made in September 2021 stating that it had been postponed "until after 2045": it had become a lower priority, since the CAESAR and PzH-2000 systems were still in production in 2008 when the production lines for the Leclerc tank stopped.78 The medium-term future for German artillery is still to be determined, even though the experience in Ukraine has shown the importance of this weapon in high-intensity scenarios.

Because Germany withdrew the FlakPanzer Gepard in 2010 without replacing it, its close-in surface-to-air defense now relies on just a few Ozelot light armored vehicles, an anti-aircraft missile-

^{76. &}quot;Panther KF51 Main Battle Tank: Future Tanknology", Rheinmetall, available at: www.rheinmetall.com.

^{77. &}quot;Rheinmetall will Panzerfabrik in der Ukraine aufbauen", *Der Spiegel*, March 4, 2023, available at: www.spiegel.de.

equipped version of Rheinmetall's Wiesel, in numbers too small to provide credible defense for German forces. The Heer has abandoned the gun as an anti-aircraft weapon, although the Luftwaffe acquired the MANTIS fixed-turret system equipped with a 35 mm gun in 2011. At a time when the Neue Heeresstruktur is seeking to develop significant new divisional air defense capabilities, the fifty Gepards that were sent to Ukraine seem to have provided great service. The proliferation of airborne delivery systems on the battlefield, particularly drones of various sizes, has rendered obsolete the idea of a close-in surface-to-air defense based exclusively on missiles, since the comparative cost of missile interceptors versus intercepted missiles has become prohibitive. In these circumstances, the gun has once again become a suitable weapon for dealing with threats at the lower end of the spectrum, while missiles are essential against higherperformance targets. The key to rebuilding Germany's close-in surface-to-air defense therefore may lie with procurement of the Skyranger, the Boxer 8x8-mounted version of the MANTIS that is being actively promoted by Rheinmetall.

Effective surface-to-air defense at the army corps scale requires the ability to deal with the drone threat across the full spectrum, down to the smallest militarized civilian drones-an area where German forces implicitly acknowledged their vulnerability when faced with the results achieved by the Azerbaijani forces in summer 2020.79 perfectly impenetrable defense remains Although elusive, strengthening German capabilities in electronic warfare and signal jamming is imperative. At present, one of the main avenues being pursued involves the Luftwaffe, which is seeking to develop an electronic warfare module for its EF-2000 fighter-bombers,80 a process that was brought forward in spring 2022 with the Zeitenwende announcements. The Heer's current capabilities in this area appear to be limited to vehicle-mounted SIGINT communications jamming modules, but several manufacturers, including MBDA Deutschland in association with the Israeli company ELTA, are already offering ground-based solutions that might enable the Heer to catch up within an acceptable timeframe.

The Tiger attack helicopter is another troubled joint weapons program. With experience from Ukraine casting doubt on the relevance of these systems in a high-intensity scenario, the Heer is questioning the future of its aircraft, since their low readiness rates are already damaging their credibility. In April 2022, only nine

helicopters were "fit to fly", and that is without even considering their combat capability, resulting in a figure of less than 20% readiness for recently acquired aircraft; in addition, fifteen of the sixty-eight helicopters ordered were already being used exclusively for spare parts. So Consequently, Germany has refused to commit alongside France and Spain to developing a new Mark 3 standard that would enable the aircraft's service life to be extended; the Heer is even contemplating gradually reducing its fleet from 2027 and scrapping the first aircraft from 2032. So

Despite the importance of rotorcraft for the German light division, the short- and medium-term future does not appear to involve a new attack helicopter similar to the Tiger, although the possible procurement of American helicopters was discussed for a time, but never followed up on. On the other hand, the German Federal Ministry of Defense is interested in the rapid development of a light support helicopter based on a militarized civilian aircraft with anti-tank capabilities. This decision is based in part on the poor performance of attack helicopters in Ukraine that are expensive and complex and rarely used because they are highly vulnerable despite their firepower.

The Luftwaffe: F-35s and air defense

Coexistence between F-35s and the FCAS

After reunification, the Luftwaffe had nearly 750 Western and Soviet fighter jets, a fleet that rapidly reduced over time. In 2004, the country's goal was a fleet of 265 fighter-bombers consisting of 180 EF-2000 Eurofighters and 85 upgraded Tornados. Cutbacks in the late 2000s further reduced the Luftwaffe's target, since it had 140 Eurofighters and 89 Tornados at the end of their operating lives at the end of the 2010s. Readiness is still a recurring weakness highlighted by the German media: in 2018, it was mentioned that only "a handful" of Eurofighters were capable of fulfilling Germany's NATO obligations

^{81.} J. Groeneveld, "Brisanter interner Ministeriumsbericht: So dramatisch steht es um die Kampfhubschrauber der Bundeswehr", *Business Insider*, March 20, 2023, available at: www.businessinsider.de.

^{82.} J. Groeneveld, "Vertrauliche Unterlagen: Bundeswehr-Führung will zivile Hubschrauber zu Kampfhubschraubern umbauen – trotz Warnungen der eigenen Experten", *Business Insider*, March 20, 2023, available at: www.businessinsider.de.

^{83.} L. Lagneau, "L'armée allemande pourrait remplacer ses hélicoptères d'attaque Tigre par des H145M dotés d'une capacité antichar", *Zone Militaire*, March 19, 2023, available at: www.opex360.com.

because of significant difficulties in parts supply.⁸⁴ In 2017, a Bundestag report highlighted the Tornados' low readiness levels, despite the fact that they were responsible for nuclear missions as part of NATO's nuclear sharing arrangement: their readiness rate was below 40%, or twenty-eight aircraft out of seventy-four,⁸⁵ while the rate for the much newer Eurofighters was 52%.

The ageing Tornados and compatibility issues prompted the Luftwaffe to consider replacing the aircraft in the mid-2010s to avoid a capability gap, particularly in the nuclear sharing arrangement, under which the Tornados are certified to carry the dozen American B61 gravity bombs stored at Büchel Air Base in Rhineland-Palatinate. The debate also had a political dimension, since Germany had opted to become an observer member of the Treaty on the Prohibition of Nuclear Weapons (TPNW), which came into force in January 2021, and some political groups—including the Greens and the SPD—questioned the advisability of continuing the nuclear sharing arrangement. However, the November 2021 coalition agreement enabled a decision to be reached in favor of continuing this mission, thereby bringing to the fore the issue of replacing the aircraft to carry the bombs. 87

After spending some time thinking about procuring F/A-18Es or modifying the Eurofighters to carry the nuclear weapons, Germany finally opted to purchase thirty-five F-35As from Lockheed Martin, for delivery from 2026 onward. The decision, which was made in spring 2022, was brought forward because of the conflict in Ukraine and the release of the *Sondervermögen* funds, a third of which will be allocated to the Luftwaffe alone. The German Air Force plans to procure a further fifteen Eurofighters specialized in electronic warfare. Thirty-eight Eurofighters were ordered in 2020 to replace the first models that were delivered from 2004 onward, which only had limited air combat capabilities.

The choice of the F-35, which was logical given Germany's timeline and the lack of any real alternative to replacing the Tornados in the future, has been the subject of much debate, however. The unit cost of the aircraft has raised questions, since Switzerland paid only €6 billion for a similar number, compared with the €10 billion in the

^{84.} M. Gebauer, "Luftwaffe hat nur vier kampfbereite 'Eurofighter", *Der Spiegel*, May 2, 2018, available at: www.spiegel.de.

^{85.} K. Biermann and J. Stahnke, "Bundeswehr: Kaputte Truppe", *Zeit Online*, April 20, 2017, available at: www.zeit.de.

^{86.} T. Bunde, "Germany and the Future of NATO Nuclear Sharing", *War on the Rocks*, August 25, 2021, available at: warontherocks.com.

^{87.} R. Ganster, "Germany's New Government Settles the Nuclear Debate – For Now", *German Marshall Fund*, November 29, 2021, available at: www.gmfus.org.

German contract.⁸⁸ Although Germany will receive five years' maintenance provided by the manufacturer, until 2031, the F-35's very high maintenance costs are also a cause for concern, especially as they will not be covered by the *Sondervermögen*.

Other purchasers, including Belgium, have already identified costly infrastructure modification requirements caused by the F-35's need for bases to be adapted for maintenance purposes.⁸⁹ In fall 2022, the German Security and Defense Industry Association (BDSV) also expressed concern about the lack of economic benefits from a purchase of this kind, since there is a risk that the lack of industrial offsets will increase the actual cost further.⁹⁰ The interviews with German industrial stakeholders showed, however, that the situation had changed and that Airbus Deutschland was hoping to create several thousand jobs linked to the maintenance of the aircraft, while, in early 2023, Rheinmetall obtained a share in production of the fuselage.⁹¹

Other stakeholders we interviewed were skeptical about the order, pointing out that the Eurofighter would need to be certified by 2024 to carry B-61 bombs if it is to replace the Tornado as the backbone of Germany's nuclear capability. This question was first asked in 2018,⁹² but it will probably never be answered, and some interviewees raised the possibility of bad faith on the part of the United States to encourage Berlin to purchase the F-35.⁹³

Procurement of the F-35 also calls into question the future of the French-German-Spanish FCAS, scheduled for 2040. The FCAS has already suffered numerous delays caused by difficulties in the partnership between Airbus Deutschland and Dassault Aviation; in addition, compatibility issues between the combat clouds of the F-35 and the FCAS are likely to cause significant problems for the Luftwaffe, which will have to make the two systems work together. French and German timelines correspond more closely for the FCAS than for the MGCS: the Rafales and Eurofighters are due to be

^{88. &}quot;Le coût des nouveaux avions F-35A est fixé à 6,035 milliards", *Tribune de Genève*, November 26, 2021, available at: <u>www.tdg.ch</u>.

^{89.} L. Lagneau, "Les infrastructures nécessaires à l'exploitation des futurs F-35A belges vont coûter 300 millions d'euros de plus", *Zone Militaire*, April 15, 2022, available at: www.opex360.com.

^{90. &}quot;Nationale Betreuungsfähigkeit: Position der Deutschen Verteidigungsindustrie im BDLI", Bundesverband der Deutschen Luft- und Raumfahrtindustrie, September 2022, available at: www.bdli.de.

^{91. &}quot;Rheinmetall liefert Teile für F-35", *Tagesschau*, February 17, 2023, available at: www.tagesschau.de.

^{92.} J. Trevithick, "The German Air Force Wants to Know If Its Eurofighters Can Carry U.S. Nuclear Bombs", *The Warzone*, June 21, 2018, available at: www.thedrive.com. 93. Interview with German institutional and military stakeholders, March 2023.

withdrawn at roughly the same time, but the introduction of a new type of aircraft could further disrupt one of the only uncontentious elements of the current program. While the reequipment of the Luftwaffe, more qualitative than quantitative, is an important aspect of the *Zeitenwende*, the prospect of having two fleets of costly-to-maintain fighters carrying out similar roles could be a significant disincentive to investing in the FCAS.

While the F-35s are the Luftwaffe's most important procurement from the *Sondervermögen*, the *Zeitenwende* also led to the purchase of sixty CH-47F Chinook helicopters in April 2022, at an initial cost of €6 billion. These will replace the CH-53G Sea Stallions that have been in service since 1973 and have an average readiness rate of less than 20%.94 The choice of the CH-47 marks a considerable increase in German air-land transport capabilities, since the payload capacity of the Chinook is almost double that of the Sea Stallion (10 tons as against 5.5).

Drones and air defense: Lessons learned from the Ukraine War

After a chaotic start, the first firm contract for the MALE RPAS drone, or Eurodrone, was signed in February 2022 (Berlin is due to purchase twenty, divided into seven systems), nine years after the first studies began in 2013. Expected to enter service from 2028, more than a decade after the initial development stages, the Eurodrone will probably benefit, both financially psychologically, from the accelerator effect of the Zeitenwende. The project has been undermined by divisions between the partners: the choice of engine manufacturer, number of engines, its weapon, and its size and weight have all generated extensive discussion, for a system scheduled to make its first flight in 2025. France is particularly critical of Germany's over-prescriptive arms exports legislation,95 while the German Bundestag was slow to give its approval, both for ideological reasons—the left-wing parties were divided on the issue of exporting military equipment-and because of the worrying budget overrun, with the cost already 30% higher than planned.96

^{94. &}quot;Chinook contre King Stallion, la compétition allemande enfin (vraiment) lancée !", *Avions Légendaires*, January 16, 2020, available at: www.avionslegendaires.net.

^{95. &}quot;Projet de loi autorisant la ratification du traité entre la République française et la République fédérale d'Allemagne sur la coopération et l'intégration franco-allemandes", Rapport n° 607 (2018–2019), Sénat, June 26, 2019, available at: www.senat.fr.

^{96.} L. Lagneau, "Le Parlement allemand donne enfin son feu vert au drone MALE européen", *Zone Militaire*, April 15, 2021, available at: www.opex360.com.

While the aircraft is already expected to weigh around ten tons, five times as much as the MQ-9 Reaper, Germany has also vacillated over the need to arm it. In another sign of the acceleration brought about by the *Zeitenwende*, the Bundestag finally gave the go-ahead for the procurement of munitions for the Luftwaffe's Heron TP drones in early April 2022: arming military drones had previously been out of the question for the SPD and the Greens, who had repeatedly blocked the process.⁹⁷ Similarly, the Bundeswehr was able to start testing various types of Israeli loitering munitions for potential future procurement,⁹⁸ something that would have been unthinkable before the chancellor's speech and still brings questions from left-wing parties.⁹⁹

At one point the Bundeswehr planned to replace its Patriot batteries, manufactured by the American company Raytheon, with a joint MBDA and Lockheed Martin system known as the Medium Extended Air Defense System (MEADS). This program was eventually abandoned in March 2021 because Germany preferred to upgrade its Patriot batteries to a single, more modern standard to guarantee their use until 2030 and to look for new mobile solutions for anti-drone warfare. The strong performance of the Patriot batteries given to Ukraine, including against Russian hypersonic missiles, should convince Berlin of the validity of this decision, despite the fact that they were not the latest version. The strong performance of the patriot batteries given to Ukraine, including against Russian hypersonic missiles, should convince Berlin of the validity of this decision, despite the fact that they were not the latest version.

In October 2022, Germany announced the launch of the European Sky Shield Initiative (ESSI) involving fifteen European nations in a multilayered missile defense shield. Germany was joined by Belgium, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, the Netherlands, Norway, Slovakia, Slovenia, Romania, and the United Kingdom, while Denmark and Sweden came on board in early 2023. The aim of the ESSI is to build an integrated air and missile defense system via joint procurement.

^{97.} L. Lagneau, "L'Allemagne va investir 152 millions d'euros pour armer ses drones MALE Heron TP", *Zone Militaire*, April 6, 2022, available at: www.opex360.com.

^{98.} M. Monroy, "Kamikazedrohnen bei der Bundeswehr im Anflug", *Neues Deutschland*, May 15, 2023, available at: www.nd-aktuell.de.

^{99.} J. Frielinghaus, "Bundeswehr bekommt Killerdrohnen", *Neues Deutschland*, April 6, 2022, available at: www.nd-aktuell.de.

^{100.} L. Lagneau, "L'Allemagne s'intéresse au système de défense aérienne américain THAAD", *Zone Militaire*, March 17, 2022, available at: www.opex360.com.

^{101.} C. Seidler, "Ukraine will Putins 'Dolch' erneut unschädlich gemacht haben", *Der Spiegel*, May 17, 2023, available at: www.spiegel.de.

^{102.} J.-B. François, "L'Allemagne brandit son bouclier antimissile européen sans la France", *La Croix*, October 13, 2022, available at: www.la-croix.com.

Under the project, three systems will share defense of the various layers¹⁰³:

- IRIS-T SLM, manufactured by the German firm Diehl Defense, with a range of 25 km.
- MIM-104 Patriot, manufactured by the American firm Raytheon, with a range of 100 km.
- Arrow-3, manufactured by the Israeli firm IAI, for very highaltitude interception.

Some of the stakeholders we interviewed felt that the significant German investment in various anti-missile systems at the European level is also a way of escaping national debates and bureaucratic processes around weapons programs while simultaneously increasing the legitimacy of the projects. 104

The *Deutsche Marine*: the unmanned gamble

Overcoming deep-seated structural problems

The German Navy in 2022 comprised eleven frigates, the oldest having entered service in 1994; five corvettes, with five more in production; and six submarines, the oldest having entered service in 2005. On the eve of the war in Ukraine, it suffered from the same vulnerabilities as the other branches of the armed forces, except that the Navy seemed to be an even lower priority than the others. Although its major ships are new, it has aging naval air capabilities that are in the process of being replaced. A 2018 report suggested that only five of the thirteen frigates and none of the six submarines were operational, while in September 2018 the F125 Baden-Württemberg frigate, the first of its class to be built, was returned to the shipbuilder straight after it entered service because of a large number of structural defects. The interviewees also mentioned significant human resources shortages, particularly in the technical roles requiring personnel skilled in electronics.

^{103.} S. Arnold and T. Arnold, "Germany's Fragile Leadership Role in European Air Defense", Stiftung Wissenschaft und Politik (SWP), February 2, 2023, available at: www.swp-berlin.org.

^{104.} Interview with German institutional and military stakeholders, March 2023.

^{105.} J. Pellistrandi, "La Bundeswehr face à la disponibilité de ses matériels", *Revue Défense Nationale*, Tribune, No. 980, March 6, 2018, available at: www.defnat.com.

^{106.} V. Groizeleau, "L'Allemagne renvoie sa nouvelle frégate chez son constructeur", *Mer et Marine*, January 9, 2018, available at: www.meretmarine.com.

The length of maintenance breaks had a significant impact on Germany's order of battle because of the limited availability of the private shipyards on which the Deutsche Marine relied. In 2019, the *Brandenburg* frigate, which had just returned to sea four months late following an upgrade, had to return to the shipyard for two weeks following a minor incident. Because the two military floating docks at Wilhelmshaven were occupied and the repairs were not urgent, access to the busy civilian shipyards was restricted, and the frigate had to wait several months before it could be fitted in, but could not put to sea.¹⁰⁷

The issue of readiness looks set to be improved by the robust measures enabled by the Sondervermögen, however. The July 2022 acquisition of a shipyard in Rostock for the exclusive use of the German Navy should help reduce waiting times and increase the speed of minor or unforeseen repairs. 108 Relations between the Deutsche Marine and the German shipyards are marked by mistrust, since the Navy suspects its contractors of artificially inflating repair costs because they have exclusive control of assessments. As a short-term measure, it was therefore decided to provide the Navy with a group of technical experts who would be able to review industrial evaluations of the scale of the repairs required, along with timeframes and costs. 109 Taking back control of the German Navy's operational maintenance in this way is part of the process of optimizing its ships' readiness: if more ships are not procured, it is vital that the Navy is able to use the existing ones at maximum capacity. Whereas 50% of the fleet was unable to put to sea in February 2022, the ultimate goal is to have a third of the fleet available for action, a third in training, and a third undergoing maintenance.

Envisioning the Deutsche Marine in 2035

The Ukraine conflict began a month after the chief of the Deutsche Marine resigned because of controversial remarks he made about Russia's attitude toward Ukraine, in which he described the possibility of an invasion as nonsense and stated that Crimea

^{107.} T. Wiegold, "Schlange stehen vor der Werft: Das Beispiel Fregatte Brandenburg", *Augen geradeaus!*, July 6, 2019, available at: <u>augengeradeaus.net</u>.

^{108.} T. Wiegold, "Nicht mehr Schlange stehen vor dem Dock: Die Bundesregierung kauft der Marine eine Werft", *Augen geradeaus!*, July 7, 2022, available at: <u>augengeradeaus.net</u>. 109. Interview with German institutional and military stakeholders, March 2023.

would remain Russian.¹¹⁰ His replacement, Admiral Kaack, who was still leading in an acting capacity at the start of the conflict, made headlines the day after the Russian attack when he ordered "anything seaworthy" to put to sea in order to send a strong signal to the Baltic states, with which Germany maintains strong military ties. Half of Germany's ships took to sea, a significant effort for a Navy with limited resources.¹¹¹

As far as the Deutsche Marine is concerned, the *Zeitenwende* primarily means refocusing strategically on Germany's natural maritime theater, the Baltic Sea¹¹²: as Admiral Kaack has pointed out, some German naval officers know the Mediterranean better than the German coast. The interest shown in more distant waters over the years, particularly in the Indo-Pacific region, such as when the frigate *Bayern* was dispatched in 2021,¹¹³ will therefore take a back seat, and the North Atlantic became the German fleet's other strategic focus after February 2022. This will not, however, prevent German diplomatic and military involvement in these regions in the future, as several modern ships are likely to be dispatched to the next Rim of the Pacific (RIMPAC) exercises.

This reaffirmation of a hierarchy of theaters is accompanied by a program to develop an order of battle for 2035 that is being presented as ambitious but also consistent with the German Navy's resources and missions. The "Zielbild" 114 (set of objectives), which was unveiled in April 2023, adopts a strategy that is resolutely focused on the Baltic Sea and the North Atlantic, along with a much greater commitment to the use of drone sensors and effectors. 115 Most of the main naval, air, and submarine platforms will therefore need to have additional drone or drone-ready capabilities that will form a third of the order of battle in 2035. Pre-conflict procurement projects are unchanged, but medium-term goals have increased greatly, particularly following the major collaborative work with the US Navy's Task Force 51, which specializes in naval drones.

^{110. &}quot;Deutscher Marinechef Schönbach: 'Das ist Unsinn'", *Der Spiegel*, January 23, 2022, available at: www.spiegel.de.

^{111.} Interview with German institutional and military stakeholders, March 2023.

^{112.} D. Frank, "Erste Kursbestimmung der Deutschen Marine", *Behörden Spiegel*, July 5, 2022, available at: www.behoerden-spiegel.de.

^{113. &}quot;Implementing the Policy Guidelines on the Indo-Pacific Region: The Frigate Bayern Sets Sail", German Federal Foreign Office, August 2, 2021, available at: www.auswaertiges-amt.de.

^{114. &}quot;German Navy Objectives for 2035 and Beyond", Bundeswehr, April 20, 2023, available at: www.bundeswehr.de.

^{115.} D. Frank, "Das Zielbild für die Marine ab 2035", *Behörden Spiegel*, April 6, 2023, available at: www.behoerden-spiegel.de.

Figure II-4: The *Deutsche Marine's* capability goals for 2035

SYSTEMS		MISSIONS	2031	2035+
Frigate Type 127		Surface/AA warfare	5	6
Frigate Type 126		Anti-submarine warfare	6	6
Frigate Type 125		Stabilisation, crisis management	4	3
Corvette Type 130		Surface warfare	10	№ 6à9
Future Combat Surface System		Surface warfare	-	L₀ ₁₈
Mine warfare platform		Mine warfare	11	∟ ° 12
Minewarfare USV	L	Mince warfare	-	_° 3
Maritime patrol aircraft P-8A	~ <u> </u>	Combat/Reconnaissance	8	∟ °8
Reconnaissance UAV	L	Combat/Reconnaissance	_	L ₆
NH-90 MRFH <i>Sea Tiger h</i> elicopter	Co -	Combat/Reconnaissance	31	∟∘ ;
Helicopter UAV	L	Combat/Reconnaissance	10	L. 22
NH-90 NTH <i>Sea Lion</i> helicopter	-	Transport	18	17
Submarine type 212CD	r	Combat	8	 6 à 9
UUV	L	Reconnaissance	-	L ₆
Intelligence ship Type 424		Intelligence	3	3
Logistic ship Type 702		Logistic, medevac	3	3
Oil tanker Type 707	سائد الس	Logistic	2	3
Support ship		Logistic, SpecOps	6	6

Source: Bundeswehr.

For example, the six to nine corvettes will be supplemented by eighteen "Future Combat Surface Systems" that are currently in development, which are lighter, potentially unmanned surface platforms that carry sensors and effectors. The Deutsche Marine's mine countermeasures ships will also be supplemented by drone "toolbox" ships, while future maritime patrol aircraft and navy helicopters will also have fixed-wing and rotary-wing drone support units. The stated ambition is to have drone helicopters capable of carrying a sizable weapon (such as a torpedo or depth charge). The future of German U-boats will also involve some drone craft: the six to nine submarines in 2035 will be supplemented by "at least six" large unmanned underwater vehicles (LUUVs).

There is still a long way to go for the Deutsche Marine while it is in recovery and still experiencing very significant human resources difficulties. However, our interviews with German naval officers highlighted the fact that the gradual increase in the use of unmanned craft is seen as a way of significantly increasing the fleet's combat capabilities without placing undue pressure on the number of sailors required, although, on average, recruits will need to be better qualified to operate and maintain complex systems. ¹¹⁶ In light of these

ambitious goals, successfully completing just half of the program would take the Deutsche Marine to a significant level of capability, particularly if the resources really are concentrated in the Baltic Sea.

While the MGCS and the FCAS have experienced their share of obstacles, the Franco-German Maritime Airborne Warfare System (MAWS) project seems to have been well and truly laid to rest. Development of this joint maritime patrol aircraft (PATMAR Future), launched in 2018, was meant, by 2030, to replace both the German Navy's P-3 Orion dating from the early 1980s and the French Atlantique 2 that has been in service since the early 1990s. Although the project did not seem to present any particular problems, Germany nevertheless decided to make an emergency procurement of at least five P-8A Poseidons from Boeing in July 2021, justifying this off-theshelf purchase by stating that it was impossible to keep its fleet maintained until 2030.117 While the age of France's Atlantique-2s is already affecting their readiness, 118 the German stakeholders we interviewed spoke of P-3s that were "falling apart". 119 In June 2022, the Sondervermögen meant that the procurement of an additional seven P-8As could be announced, bringing the fleet of maritime patrol aircraft up to twelve and strengthening the German Navy's capabilities considerably, taking it from eight P-3s to twelve P-8As by 2030. Although the officers we interviewed talked about the next phase of the MAWS program involving naval drones and a combat cloud for all types of maritime patrol aircraft, France seems to have moved on: in early 2023 it awarded Airbus and Dassault contracts for early-stage development work on the future French PATMAR. 120

Joint support: Emphasis on digitization

This overview of the Bundeswehr's modernization efforts would not be complete without mentioning the organizational importance of the joint services operating in support of the armed forces:

A maintenance and logistics service (*Streitkräftebasis* or SKB) created in October 2000 to encourage synergies and pooling. With more than 22,000 personnel, the SKB is the subject of frequent

^{117. &}quot;Deutschland bestellt Seeaufklärer für 1,1 Milliarden Euro", *Der Spiegel*, July 1, 2021, available at: www.spiegel.de.

^{118.} L. Lagneau, "Le taux de disponibilité des avions de patrouille maritime Atlantique 2 n'est que de 25 %", *Zone Militaire*, June 4, 2015, available at: www.opex360.com.

^{119.} Interview with German institutional and military stakeholders, March 2023.

^{120.} M. Cabirol, "Nouveau projet français d'avion de patrouille maritime, avis de décès du programme franco-allemand MAWS", *La Tribune*, January 13, 2023, available at: www.latribune.fr.

debate regarding its possible reintegration into the three branches of the armed forces, particularly in order to improve responsiveness. The creation in 2022 of a new Territorial Operations Command for the Bundeswehr should lead to the latter beginning to reappropriate some of the SKB's functions, particularly those involving the logistics corps and the maintenance of certain equipment.¹²¹

- The Bundeswehr Joint Medical Service (ZSanDstBw): established in 1956, this medical corps has become relatively more important as the other branches of the armed forces have shrunk, reflecting the increasingly peaceful orientation of the German armed forces since the end of the Cold War. Currently comprising more than 20,000 personnel, it was of course put to major use to serve civil society during the COVID-19 pandemic. Thanks to its unmatched capacity, it has positioned itself as the framework organization at the head of several European and NATO projects.
- Finally, the Cyber and Information Domain Service (*Cyber und Informationsraum*, CIR), created in 2017, comprises almost 17,000 personnel and plays a key role in modernizing the Bundeswehr in terms of the digitization of the armed forces and their integration at a joint forces and especially inter-allied level.

Almost a third of the €65 billion of defense spending approved by the Bundestag in 2023 has been allocated to a thorough redesign of command and control (C2) systems, ten times the amount allocated to the Deutsche Marine. Amounting to €19.5 billion, the money has been earmarked for a series of programs deemed essential for overcoming the multiple difficulties the armed forces have been facing for years, particularly in communications. Some of the stakeholders we interviewed mentioned repeated failings, the uncertain reliability of communications systems coming to the end of their use lives, and numerous issues encountered during recent maneuvers or coalition military exercises. For example, a serious defect meant the land forces had to temporarily act as a motorbike courier service to compensate for the failure of the unit-to-unit communications system.

The first C2 investment is the Digitization of Land-based Operations program (*Digitalisierung Landbasierter Operationen*, D-LBO), which will receive €8.5 million from the *Sondervermögen*. This program for the digitization of the battlefield closely resembles the French Scorpion program. It covers a large number of domains and is

^{121.} T. Wiegold, "Bundeswehr stellt Territoriales Führungskommando auf – Corona-General an der Spitze", *Augen gerdehaus!*, September 26, 2022, available at: augengeradeaus.net.

designed to ensure interoperability with Germany's partners and allies. The cardinal aim remains to speed up the transmission and sharing of information between sensors and effectors in order to reduce response times. This will be achieved by combining tactical communications and information processing throughout the entire process, from on-board radios to hierarchical and inter-unit communication hubs. Rather than developing brand new solutions via a dedicated holistic program, Germany has been exploring additional avenues and focusing on immediately available, off-the-shelf products. Thales has tendered for the project, but so have other European initiatives using the ESSOR waveform, which was developed by a4ESSOR SAS, a joint venture between French, German, Italian, Austrian, Finnish, and Polish companies. The digitization of the entire land army, including soldiers and vehicles, will require almost 300,000 radio sets, with the first brigade scheduled to be equipped by the end of 2023.¹²²

Another significant budget item is SATCOMBw, which was allocated almost €2 billion in 2023 for the construction of a secure satellite communications system based on two dedicated satellites. In development by Airbus Defense and Space since the early 2000s, the program is maturing, with the first stage using rented satellites and the next stage replacing those in current use with new, more powerful models.¹²³

As part of Federated Mission Networking, a NATO initiative intended to facilitate C2 between allied forces, the German Mission Network program (GMN) will enable Germany to develop a joint forces communications system that meets NATO standards.¹²⁴ Created by the German company ESG (Elektroniksystem- und Logistik-GmbH) and the French firm Atos, this system, which is designed to be standardized and secure, has reached the technical demonstration phase and will eventually be used by all branches of the armed forces.

All these projects are characterized by the importance given to compatibility, not just with Germany's US ally, but also with minor NATO nations in order to facilitate Germany's stated strategy of establishing itself as an integrated framework nation capable of mobilizing NATO forces around it.

^{122. &}quot;Qu'est-ce que D-LBO, le 'Scorpion allemand' ?", Forces Operations Blog, available at: www.forcesoperations.com.

^{123. &}quot;SATCOMBw: More than 10 Years of Service to the German Armed Forces", Airbus, available at: www.airbus.com.

^{124.} G. Heiming, "German Mission Network Becomes a Joint Armed Forces Platform", Europäische Sicherheit & Technik, May 28, 2021, available at: esut.de.

An integrating German defense in Europe and beyond

After two decades of overseas operations and an arduous process of adapting to the new context, the *Zeitenwende* is prompting a return to Germany's strategic fundamentals. Germany is strengthening its existing ties with the NATO and European frameworks, where its geographical position gives it a central role. The relationship between Berlin and Washington has been reaffirmed as central to German strategy, while a series of partnerships with smaller European countries reflects an ambition that is modest but consistent with the resources deployed. The tense relationship between Poland and Germany remains a subject of concern, with Warsaw displaying a perhaps excessive level of ambition.

NATO as the fundamental framework

One of the keys to understanding Germany's defense policy in general, and the *Zeitenwende* in particular, is the essential role of NATO as a strategic, conceptual, doctrinal, and capabilities framework. Often misunderstood in France, the German conception of European defense does not pit NATO against the EU's Common Security and Defense Policy (CSDP), but it does make progress in the latter dependent on consolidation of the former, which remains the primary reference point for German strategy.

The Bundeswehr and NATO: An inseparable bond

NATO and collective European defense were at the root of the creation of the Bundeswehr. Demilitarized in 1945, Germany was defended by the occupying forces until 1955. After having deployed more than 200,000 soldiers in Korea, Washington put forward the idea of recreating a German army so that the United States could reduce its presence in Europe. Faced with French reluctance, this

rearmament was initially envisaged within a European framework (the Pleven Plan) but was hampered in 1954 by the failure of the projected European Defense Community. It was the Federal Republic's accession to NATO that same year that opened the way for the creation of the Bundeswehr in November 1955. 125

Within ten years, the Bundeswehr had acquired a central role in NATO's doctrine of "forward defense" against a hypothetical attack by the forces of the Warsaw Pact, which was also created in 1955 in reaction to the FRG's accession to NATO. Home to around 400,000 personnel from the Bundeswehr and almost as many from the allied nations (principally American, British, and French), West Germany would be the principal battlefield of a potential future conflict.

The day-to-day life of the Bundeswehr at that time involved dozens of NATO exercises every year—with a peak reached in 1982 when eighty-five exercises were conducted on German soil. 126 These exercises emphasized two major capabilities: first, the ability of the Northern and Central Army Groups to hold the line against a mechanized and armored advance from the east; second, the ability to transport reinforcement forces from Europe and America. This was the focus of the REFORGER (Return of FORces to GERmany) exercises conducted every year from 1969, which were intended to test the operational mobility of the Alliance's forces. 127

The end of the Cold War and the reunification of Germany under the "Two Plus Four" treaty in 1990 marked a shift for the Bundeswehr and for German defense policy. First, it eliminated any immediate threat to German territory, a threat that was the Bundeswehr's raison d'être given that deployment of the military outside national borders was still a political and constitutional taboo. The accession of reunified Germany to NATO also represented the first stage in NATO's eastward expansion.

In the 1990s, Berlin took a leading role in this dynamic, emerging as an important supporter of both the Visegrád Group (Poland, the Czech Republic, Hungary), whose members were invited to join the Alliance at the 1997 Madrid Summit, and the Vilnius Group (Albania, Bulgaria, Croatia, Estonia, Latvia,

^{125.} Neitzen, Deutsche Krieger, op. cit.

^{126. &}quot;Germany and NATO", NATO Declassified, available at: www.nato.int.

^{127.} D. Miller, The Cold War: A Military History, London: Pimlico Books, 1999.

^{128.} Neitzen, Deutsche Krieger, op. cit.

Lithuania, North Macedonia, Romania, Slovakia, and Slovenia), admitted between 1999 and 2009. 129

Under the leadership of Gerhard Schröder and Angela Merkel in her first term, the 2000s saw Germany adopt a more cautious approach in this respect. This change was mainly rooted in a desire not to antagonize Vladimir Putin's Russia, which was expressing its hostility to NATO's expansion more openly. The climax came at the 2008 Bucharest Summit, when Berlin stated its opposition (alongside France) to Ukraine joining a Membership Action Plan. 130 Notwithstanding these political limitations, Germany moved in the space of a few years from being one of NATO's border states to being its geographical center of gravity, giving it a new role in force generation and logistical command (see below).

In fact, the geostrategic changes of the post-Cold War period meant that NATO no longer dominated the Bundeswehr's operational horizon to quite the same extent, at least in its territorial and collective defense mission, with crisis management, missions stabilization, and peacekeeping becoming But although German contributions important. peacekeeping and to certain EU missions did slightly diversify the Bundeswehr's operational experience, NATO retained its central position, including in stabilization missions, whether in the form of the NATO-led Kosovo Force (KFOR) in 1999 or the International Security Assistance Force (ISAF), which was created in Afghanistan in 2001 and transferred to NATO control in 2003, partly at Germany's initiative. 131

Likewise, the Bundeswehr's culture remained predominantly NATO-oriented throughout this period in terms of deployment concepts, doctrine, and above all the sociology of its managerial staff. ¹³² In an army that was questioning its own role and being scaled back—with a reduction of 50% in twenty years—NATO remained perhaps the only fixed point. In this respect, the experience in Afghanistan was both painful and necessary. It had an effect on the military institution's procedures as well as on an

^{129.} M. E. Sarotte, Not One Inch: America, Russia, and the Making of Post-Cold War Stalemate, New Haven, CT: Yale University Press, 2021, p. 170.

^{130.} A. Zima, L'OTAN, Paris : PUF, 2019, pp. 100-101.

^{131.} Neitzen, Deutsche Krieger, op. cit.

^{132.} H. Königshaus, "Die Wahrnehmung internationaler Konflikte durch den Wehrbeauftragten des Deutschen Bundestages", in: A. Dörfler-Dierken and G. Kümmel (eds.), Am Puls der Bundeswehr – Militärsoziologie in Deutschland zwischen Wissenschaft, Politik, Bundeswehr und Gesellschaft, Wiesbaden: Springer Fachmedien, 2016; D. Puhl, "L'Allemagne, le changement d'époque et l'avenir de l'OTAN", Visions franco-allemandes, No. 33, Ifri, August 2022, available at: www.ifri.org.

entire generation of soldiers and officers, who became aware of how much still needed to be done to transform the Bundeswehr into an army of operations as well as structures.¹³³

Framework nation: The emergence of German leadership within NATO

Germany contributed significantly to the revitalization of NATO in the 2010s with its framework nation concept (FNC). In a context of public debt crisis in Europe, American pressure regarding budgetary burden sharing, the "pivot" to Asia, and the announcement of the end of the ISAF mission in Afghanistan, NATO began to question its future. Germany faced particular challenges because of the image as a timid and unreliable ally it had earned due to its numerous caveats in Afghanistan and its refusal to join Operation Unified Protector in Libya in 2011. Berlin saw a need to take the initiative in order to rekindle the Alliance. 134

The German FNC

Proposed by Thomas de Maizière to the NATO ministerial in June 2013, the FNC was officially adopted by the Alliance in September of the following year, in the midst of the backlash against Russia's annexation of Crimea. The FNC represents a new form of cooperation consisting of a durable coalition of small member states clustered around a large European country and guided to develop complementary capabilities, with the aim being to create a militarily coherent and economically efficient grouping. The FNC represented Berlin's first attempt to assume a military leadership position in NATO's European pillar, an ambition that was reasserted in the *White Paper on German Security Policy* in 2016 and the *Bundeswehr Concept* in 2018. The FNC represented and the *Bundeswehr Concept* in 2018.

^{133.} M. Drain, "L'engagement de la Bundeswehr en Afghanistan: Quels enseignements pour la politique de défense allemande?", *Note du Cerfa*, No. 118, Ifri, December 2014, available at: www.ifri.org.

^{134.} E. Hagström Frisell and E. Sjökvist, "Military Cooperation Around Framework Nations: A European Solution to the Problem of Limited Defense Capabilities", Swedish Defence Research Agency, February 2019.

^{135.} D. A. Ruiz Palmer, "The Framework Nations' Concept and NATO: Game-Changer for a New Strategic Era or Missed Opportunity?", *Research Paper*, No. 132, NATO Defense College, July 2016, available at: www.ndc.nato.int.

^{136.} C. Major and C. Mölling, "The Framework Nations Concept: Germany's Contribution to a Capable European Defense", *SWP Comments*, No. 52, SWP, December 2014, available at: www.swp-berlin.org.

^{137. &}quot;Weißbuch Zur Sicherheitspolitik und zur Zukunft der Bundeswehr", Die Bundesregierung, 2016; "Konzeption der Bundeswehr", Bundesministerium der Verteidigung, 2018.

European states participating to the German Framework Nation Concept (FNC)

Germany

States included in the German FNC

Map III-1: States forming part of the German FNC

Source: E. Hagström Frisell and E. Sjökvist, Military Cooperation Around Framework Nations.

As the initiator and advocate of the concept, Germany was the first member state to become a framework nation. Its FNC, established in 2014, has two main facets. The first is the creation of European clusters for specific capabilities such as logistics, CBRN defense, C4ISR, etc. The second involves the implementation of command structures for large units (land division, air brigade, naval task force, etc.) and the generation of adjacent forces as part of the new military concept adopted in Newport, "Deterrence and Defense of the Euro-Atlantic Area" (DDA). 138

Around ten Allies, principally from Northern and Eastern Europe, immediately expressed a desire to join the German FNC; the coalition expanded further in the following years to reach twenty countries in 2018, including some non-NATO states like Sweden, Finland, Austria, and Switzerland. It thus forms the perimeter of Germany's military and strategic influence in Europe (see below). Although two other member states announced their own FNCs in 2015—the United Kingdom, whose Joint Expeditionary Force (JEF) is centered on Scandinavia and the Baltics; and Italy, which focuses on the Adriatic and the Balkans—the German concept remains the

largest, and probably the most complete. 139 Since its launch, Germany has developed its leadership in both initially identified areas: command structures and capability clusters.

Command and logistics structures

The command structures promoted by the German FNC within NATO also reflect Berlin's new military ambitions and have a considerable influence on the Bundeswehr's defense capabilities planning at the national scale. Indeed, such ambitions could already be detected in 2014 for each domain.

In the land domain, Germany's stated ambition is to be able to command one or two NATO army corps consisting of three divisions—two heavy, one light—capable of integrating units from partner nations. To do so, the Heer must of course expand its combat capabilities and above all its organic divisional units (see above), but also develop effective interoperability with designated units from partner nations, in this case Dutch, Czech, Romanian, and Lithuanian brigades (see below).

The Bundeswehr's assumption in 2023 of the annually rotating command of the VJTF, part of the NATO Response Force (NRF), was both a challenge in terms of operational readiness and a marker of the increasing power of German military leadership within NATO. Under German command, the VJTF consists principally of the 37th Panzergrenadier Brigade, supplemented by Norwegian, Dutch, Czech, or Belgian units. Altogether, Germany claims it can provide over 18,000 of the around 40,000 personnel theoretically needed for the NRF. By 2030, Germany aims to be able to provide NATO with 50,000 available and operationally ready soldiers.

The German FNC also has an air component thanks to the establishment in 2019 of the Multinational Air Group (MAG), which will supposedly be able to generate 350 daily sorties. The Luftwaffe proposes to cover 75% of the MAG's capacity by assigning its four fighter squadrons. It has also invested in new air operations command capabilities at its CAOC (Combined Air Operations Center) in Uedem and its subsidiary base in Kalkar. On the back of two initial exercises (MAGDAYs) in 2019 and 2021, the MAG will play a central

^{139.} R. L. Glatz and M. Zapfe, "NATO's Framework Nations Concept", *CSS Analyses in Security Policy*, No. 218, The Center for Security Studies, December 2017, available at: css.ethz.ch; D. Ruiz Palmer, "The Framework Nations' Concept", i

^{140.} A. Uzulis, "Deutschland ist zum dritten Mal Leadnation der NATO-Speerspitze", *Loyal Magasin*, January 5, 2023, available at: www.reservistenverband.de; B. Müller, "Bundeswehr: Schnell kampfbereit", *Loyal Magasin*, October 28, 2021, available at: www.reservistenverband.de.

^{141.} Glatz and Zapfe, "NATO's Framework Nations Concept", op. cit.

role in the Air Defender exercise in June 2023, which will involve twenty-five partner nations, 220 aircraft, and 10,000 participants under Luftwaffe command. 142 The confirmation of the F-35 purchase should boost Germany's appeal as a framework nation for a user community that is gaining ground among Europe's air forces.

Germany's operational ambition in the sea domain can also be seen in the FNC. In 2019, the Deutsche Marine inaugurated a multinational headquarters in Rostock, the Baltic Maritime Component Command (BMCC), whose mission is to be able to command a NATO naval task force for the entire Baltic Sea under the authority of the Plymouth Maritime Command. Nevertheless, Germany's ambition is hampered here by the British JEF, which already includes all the countries bordering the Baltic Sea other than Poland. Poland has also rejected German leadership, preferring to rely on bilateral cooperation with the United States for its naval component.¹⁴³

Finally, alongside the FNC, Germany's military influence strategy within NATO has also positioned it as a player in the sphere of joint logistics. Recalling the suggestion by the commander of United States Army Europe in 2015 to create a "military Schengen Zone" in order to address the administrative and logistical issues affecting mobility within NATO and preventing the rapid movement of large units, Ursula von der Leyen, then defense minister, seized on the topic in 2017 to propose hosting a NATO command dedicated to that purpose. 145 The proposal was received favorably by Supreme Headquarters Allied Powers Europe (SHAPE), which proceeded to establish a new Joint Support and Enabling Command (JSEC) in the small city of Ulm, Baden-Württemberg, which was already home to the command for Germany's logistics force, the SKB (see above). Placed under German leadership, the JSEC's mission would be to facilitate and safeguard the transport of troops and materiel throughout the member states.146

^{142. &}quot;Air Defender 23 - Jahre der Vorbereitung, um 200 Flugzeuge in die Luft zu bekommen", Luftwaffe, March 28, 2023, available at: www.bundeswehr.de.

^{143.} G. Swistek and M. Paul, "Geopolitics in the Baltic Sea Region", *SWP Comment*, No. 9, SWP, February 16, 2023, available at: www.swp-berlin.org.

^{144.} M. Zaborowski, "'We Need a Military Schengen Zone' – General Ben Hodges", Center for European Policy Analysis, November 26, 2015, available at: cepa.ecms.pl.

^{145.} P. Lange, "A New NATO Command in Germany: Modelled on the Bundeswehr Joint Support Service", *Security Policy Working Paper*, No. 10, 2018, available at: www.baks.bund.de.

^{146.} S. Boeke, "Création d'une zone arrière sécurisée et fonctionnelle: Le nouveau quartier général du JSEC de l'OTAN", *NATO Review*, January 13, 2020, available at: www.nato.int.

To justify its role as NATO's military logistics "hub", Berlin emphasizes its central geographical location and the expertise in joint forces logistics it has gained over the SKB's twenty years of existence. Operational since 2019, the JSEC played a major role in the Defender-Europe 20 exercise, which involved 6,000 American military personnel and 9,000 vehicles and pieces of equipment, a third of which came from the other side of the Atlantic. Although not as large as the Cold War-era REFORGER exercises (see above), it signaled a return to NATO's origins and reflected the new importance given to "follow-on forces" in collective defense scenarios. The creation by the Bundeswehr of a Territorial Operations Command within the Heer in October 2022 seems to be directly linked to this logistical mission of securing the rear.

Synergy with the European Union

In parallel with these efforts regarding command structures, the German FNC is also developing a capability pole with the intention of establishing a number of "clusters" where Berlin believes it can fulfill the role of a framework nation, whether through its R&D or its industrial fabric. In 2021, the German FNC identified no less than twenty-four capability clusters (see table). The orientation of these clusters is determined primarily based on gaps identified in the NATO Defense Planning Process (NDPP).

To this end, Berlin is seeking to develop synergies with the European Union's Common Security and Defense Policy (CSDP) programs, particularly those of the Permanent Structured Cooperation (PESCO) launched in 2017. Four of the six PESCO projects currently being coordinated by Germany overlap very closely with the equivalent FNC clusters. The same goes for other projects led by Germany, or other countries, under initiatives such as the European Defense Industrial Development Programme (EDIDP). This convergence, which is Germany's stated intention, should not lead to underestimation of the priority given to the NATO process: at this stage, the European framework is for Berlin a source of funding rather than a strategic focus.

^{147.} G. Thomas, P. Williams, and Y. Dyakova, "Exercice Defender-Europe 20: La facilitation et la résilience en action", *NATO Review*, June 16, 2020, available at: www.nato.int.

^{148.} B. Hodges, T. Lawrence, and R. Wojcik, "Until Something Moves: Reinforcing the Baltic Region in Crisis and War", International Centre for Defense and Security, April 2020, available at: icds.ee.

^{149.} General Breuer, hearing at the Assemblée nationale.

^{150.} C. Major and C. Mölling, "PeSCo: The German Perspective", *Ares Policy Paper*, No. 36, IRIS, February 2019, available at: www.iris-france.org.

Table III-1: Comparison of FNC clusters and PESCO projects coordinated by Germany

Cluster group	FNC capability clusters	PESCO projects coordinated by Germany
Command and control	Logistics, civil-military cooperation (CIMIC), Mission Networks, Air C2, medical support , CBRN protection, provosts (military police), multinational air transport unit, basic helicopter training	Network of Logistic Hubs in Europe and Support to Operations (NetLogHubs); European Medical Command (EMC); EUFOR Crisis Response Operation Core (EUFOR CROC)
Effects	Anti-submarine warfare, deployable air bases, military engineering, joint fire support, naval mine warfare, air maneuver training	-
Joint Intelligence, Surveillance and Reconnaissance (J-ISR)	Maritime patrol aircraft, coalition shared data, MALE RPAS, meteorological and oceanographic support	European MALE RPAS (Eurodrone); Geo-meteorological and Oceanographic Support Coordination Element (GEOMETOC GMSCE); Cyber and Information Domain Coordination Center (CIDCC)
Protection	Ballistic missile defense (upper layer), theater BMD, counter rocket artillery, and mortar (C- RAM)	-

Source: Hagström Frisell and Sjökvist, Military Cooperation Around Framework Nations; PESCO projects, available at: https://www.pesco.europa.eu/.

This capability development is also the background against which the ESSI initiative must be understood. The launch conference was attended by fourteen European countries, all members of the FNC except the United Kingdom. Although it may have seemed to have been rushed through in reaction to the discourse around the *Zeitenwende*, the initiative actually continues the capability projects identified as early as 2014 by the German FNC.¹⁵¹

Nevertheless, the lack of consultation with other political and industrial stakeholders, and above all Berlin's choice to opt for off-the-shelf procurement of existing German (IRIS-T) but also American (PAC-2) and Israeli (Arrow-3) systems, aroused the anger of partners like France or Italy, who saw it as indicating a lack of interest in developing European solutions still at the R&D stage. The initiative also raises questions about the interoperability of the Arrow-3 with NATO's Integrated Air and Missile Defense (IAMD) networks, as well

^{151. &}quot;European Sky Shield Initiative Gains Two More Participants", NATO, February 15, 2023, available at: www.nato.int.

^{152.} E. Vincent, "Le projet de bouclier antimissile lancé par Berlin fâche toujours Paris", *Le Monde*, March 4, 2023, available at: www.lemonde.fr.

as concerns regarding the strategic signal being sent to Russia in terms of stability and mutual vulnerability. 153

Beyond the example of the ESSI, there are still questions, particularly in France, surrounding the feasibility of the European ambitions of Germany's capability development projects, whether as part of the FNC, PESCO, or the European Defense Industry Reinforcement through Common Procurement Act (EDIRPA).¹⁵⁴

Preferred cooperations in the Euro-Atlantic area

The resolutely NATO-oriented foundation of German defense policy is the touchstone of its bilateral and multilateral cooperations in the Euro-Atlantic area. It thus forms a geography of preferred partnerships in the European space.

Maintaining the relationship with the United States

Since 1949, Germany's alliance with the United States has been the fundamental pillar of its security policy. The relationship also has a territorial dimension, especially in the south of the country. In 1989, the FRG hosted more than 250,000 G.I.s, many with their families, as well as tens of thousands of American civilian defense employees, forming a community of more than half a million US expatriates, who had a significant impact on the German economy. This community was split across forty-seven bases and almost 800 facilities. Germany was home to around 70% of the US forces in Europe and 60% of all US overseas bases. 155

The end of the Cold War led to a considerable reduction in this presence, which nevertheless remained steady at around 100,000 personnel throughout the 1990s. In the post-9/11 years, the Pentagon reduced its presence once again, with two US Army divisions being replaced by a Stryker brigade, among other changes. The number of forces thus decreased from 73,000 to 38,000. The final "shock" came during Donald Trump's presidency, against the background of a sharp deterioration in bilateral relations—which had remained strong

^{153.} Arnold and Arnold, "Germany's Fragile Leadership Role", op. cit.

^{154.} A. Pugnet, "La Commission menace de retirer sa proposition de fonds d'achat d'armes de 500 millions d'euros", *Euractiv*, March 27, 2023, available at: www.euractiv.fr.

^{155.} K. B. Cunningham and A. Klemmer, "Restructuring the US Military Bases in Germany: Scope, Impacts, and Opportunities", Bonn International Centre for Conflict Studies, June 1995, available at: www.bicc.de.

^{156.} S. L. Pettyjohn, "U.S. Global Defense Posture, 1783-2011", RAND Corporation, 2012.

until then despite the tensions that arose during the Iraq crisis in 2003—as a result of protectionist demands against Germany's trade surplus. ¹⁵⁷ In one of his tempestuous statements, Trump announced his intention to withdraw another 12,000 American military personnel from Germany, a unilateral decision that was deemed "unacceptable" by Angela Merkel's advisors. ¹⁵⁸

"[US troops] are there to protect Germany, right? And Germany is supposed to pay for it... Germany's not paying for it. We don't want to be the suckers any more. The United States has been taken advantage of for 25 years, both on trade and on the military. So we're reducing the force because they're not paying their bills. 159"

This tension is reflected in Germany's timidity about developing its industrial defense policy. Although Berlin has since the 1990s scrupulously upheld the "3D" rule in European defense policy—no duplication, no decoupling, no discrimination toward the US defense industry—Ursula von der Leyen decided to promote European preference in the armaments sector. This move, fully supported by France, culminated in PESCO and the European Defense Fund (EDF). The United States responded swiftly by exerting considerable pressure, leading Berlin to seek a compromise on "third-country" access to European programs, despite French intransigence. 160

Joe Biden's arrival in the White House at the beginning of 2021 was seen as a reprieve. And indeed, just a month after assuming office, the Democratic president imposed a freeze on his predecessor's decisions to reduce forces in Europe. 161 After a European tour in June 2021 that reassured Berlin, he announced the results of a *Global Posture Review* justifying the long-term maintenance of a constant level of engagement in Germany. 162 In return, Germany further

^{157.} H. Stark, "Politique étrangère allemande: Entre multilatéralisme et *Germany First*", *Politique étrangère*, No. 3, Ifri, 2021, pp. 95-107.

^{158.} P. H. Gordon, "Trump's Sudden and Dangerous Troop Withdrawal From Germany", Council on Foreign Relations, June 8, 2020, available at: www.cfr.org.

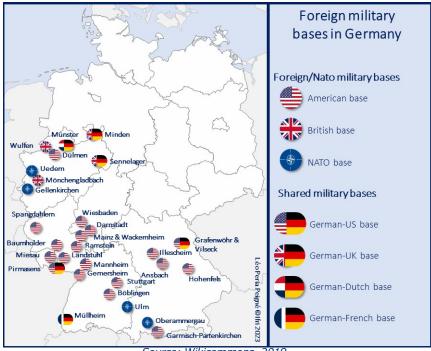
^{159.} J. Borger, "US to Pull 12,000 Troops Out of Germany as Trump Blasts 'Delinquent' Berlin", *The Guardian*, July 29, 2020, available at: www.theguardian.com.

^{160.} G. Traufetter and M. Gebauer, "USA attackieren EU-Pläne für Verteidigungsfonds", *Der Spiegel*, May 14, 2019, available at: www.spiegel.de; B. Giegerich, "Armament and Transatlantic Relationships: The German Perspective", *Ares Comment*, No. 45, IRIS, October 2019, available at: www.iris-france.org.

^{161.} H. Cooper, "Biden Freezes Trump's Withdrawal of 12,000 Troops From Germany", *The New York Times*, February 4, 2021, available at: www.nytimes.com; H. Farrell, "Biden Is Freezing Trump's Withdrawal of Troops from Germany: There's a Long History Behind America's Military Bases Abroad", *The Washington Post*, February 9, 2021, available at: www.washingtonpost.com.

^{162.} M. Overhaus, "The Biden Administration's Global Posture Review", *SWP Comment*, No. 59, SWP, December 2021, available at: www.swp-berlin.org.

softened its position on the industrial question and replaced the concept of "strategic autonomy" with the vaguer concept of "European sovereignty".



Map III-2: Foreign military facilities in Germany

Source: Wikicommons, 2019.

Disagreements are arising once again, however, although expressed in more civilized terms. Attitudes toward Russia seem to be the major issue, with the Nord Stream 2 project the principal sticking point. Washington's determined efforts to convince Germany to drop the project were futile until the Russian invasion of Ukraine in February 2022. In fact, Germany under Olaf Scholz's new "Jamaica" coalition seems to be doing little to counter the growing threat from Russia. As the crisis around Ukraine intensified in January 2022, the German ambassador to Washington warned that Germany was gaining an image as an "unreliable" partner due to its pusillanimous attitude regarding the increasing likelihood of an invasion.

Although the February 27 speech was unanimously welcomed by the US press and political class, the latter have displayed a certain impatience vis-à-vis the *Zeitenwende*. German hesitation on arms deliveries is especially irritating because it puts pressure on the

^{163.} S. Pifer, "Rebuilding US-German Relations: Harder Than It Appears", Brookings, March 25, 2021, available at: www.brookings.edu.

^{164.} M. Gebauer, K. Hagen, V. Höhne, D. Kurbjuweit, V. Medick, R. Neukirch, J. Schaible, and F. Schmid, "Der Ampel-Eiertanz und seine Folgen", *Der Spiegel*, January 28, 2022, available at: www.spiegel.de.

United States to take responsibility for delivering the first Westernmade heavy tanks to Ukraine. Some see this as indicating Germany's persistent inability to assume a true leadership role in Europe outside the shadow of its American protector. ¹⁶⁵

Beyond the Ukrainian problem, there are plenty of other areas of contention between Berlin and Washington, starting with their position regarding China. Although the topic is also the subject of debate within the current coalition, Germany's decision at the end of 2022 to approve a deal giving the Chinese company COSCO a 24.99% stake in the port of Hamburg aroused tension with the United States. ¹⁶⁶ Germany's China strategy, the publication of which has been postponed for several months, is also likely to be part of this delicate repositioning between strategic risk mitigation and the continuation of an economic partnership that Berlin is not ready to renounce. ¹⁶⁷

Finally, while the German–US relationship seems, despite all this, to be solid under the Biden administration, the upcoming US presidential election is a source of concern for Germany. The Trumpian rhetoric of hostility to a Europe perceived as "woke" and unreliable on security issues is now firmly embedded in the Republican Party, as shown by a series of tweets by the senator from Ohio J. D. Vance, who bemoaned that the *Zeitenwende* had "materialized into manure". Mindful of the risk posed by a future Republican president—whether Donald Trump or someone else—Olaf Scholz has publicly expressed his support for Biden's reelection, making Germany even more vulnerable in the event of a Republican victory in 2024.

Consolidating Northern European alliances

Among Germany's closest allies on the European side of the Atlantic are the countries of Northern Europe, which represent a local and dependable geopolitical clientele. Although they do not always align with German positions, they are nevertheless a generally loyal backyard when it comes to security questions. Above all, they enjoy a

^{165.} W. N. Glucroft, "War in Ukraine: A Stress Test for US-German Relations", *Deutsche Welle*, February 2, 2023, available at: www.dw.com.

^{166.} H. Pamuk, "U.S. Cautioned Germany Against a Chinese Controlling Stake in Hamburg Port", Reuters, November 2, 2022, available at: www.reuters.com.

^{167.} H. Görg, R. J. Langhammer, K. Kamin, and W.-H. Liu, "Die geplante China-Strategie Deutschlands ist der falsche Weg", *Kiel Focus*, Kiel Institute, January 2023.

^{168.} J. Puglierin and M. Ruge, "The German Scapegoat: Berlin's Inevitable Role in the US Presidential Election", European Council on Foreign Relations, March 22, 2023, available at: ecfr.eu.

high level of integration with the Bundeswehr, with which they have an increasing number of operational, capability, and industrial cooperation arrangements.

The Netherlands: The deepest integration

The Netherlands is now the Bundeswehr's most highly integrated partner. The relationship has consistently grown stronger since 1993, when the two countries' defense ministers decided to fuse their respective army corps staffs to form a binational structure.

Inaugurated in 1995 in Münster, Westphalia, the corps was designated as a NATO "high readiness force" (HRF), meaning it could be commanded by the Joint Force Command (JFC) in Brunssum under the authority of SHAPE, taking on one of the first NRF "alerts" in 2005. Nevertheless, until 2014, 1 German-Netherlands Corps was limited in practice to joint exercises, planning and staff work, and the establishment of a Staff Support Battalion and a Communication and Information Systems Battalion.

Germany's creation of the FNC—which the Netherlands joined in 2014—accelerated the gradual integration of the three Royal Netherlands Army brigades into the force structure of the Heer. In 2014, the Dutch 11 Airmobile Brigade was the first to be integrated with the German Division Schnelle Kräfte (DSK) (Rapid Forces Division). 169

The Dutch 43 Mechanized Brigade was placed under the command of Germany's 1st Panzerdivision in 2016, allowing the Dutch army to regain a main battle tank capability it had lost in 2011 for budgetary reasons. Rather than rebuilding this capability itself after the Ukrainian wake-up call in 2014, the Netherlands preferred to pool resources with Germany via the creation, within the 43 Mechanized Brigade, of the German–Dutch 414 Tank Battalion, within which soldiers from both countries work alongside each other on Leopard 2 tanks.¹⁷⁰

Finally, in March 2023, the 13 Light Brigade, the third and final brigade of the Dutch land army, completed its integration into the Bundeswehr, this time under the command of the 10th Panzerdivision. Almost all of the Netherlands' land forces are now under German divisional command as part of a binational corps. Some see this as the

embryo of a "European army"¹⁷¹ under German control, and the joint declaration of March 27, 2023, openly embraced the idea that it could pave the way to the consolidation of a "European pillar in NATO".¹⁷²

The two countries also cooperate in the air and sea domains, although in a less spectacular way. During the 2022 ILA Berlin Air Show, the Inspector of the Luftwaffe and his Dutch counterpart signed a letter of intent to boost cooperation between the two air forces, particularly around their future F-35 and CH-47 Chinook fleets, now shared by both countries. Finally, the sea domain is included thanks to the integration in 2018 of the Seebataillon, the only German marines regiment, into the Dutch navy, where it principally operates on board the amphibious ship HNLMS *Karel Doorman*, a capability that the Deutsche Marine lacks. Finally, the sea domain is principally operates on board the amphibious ship HNLMS *Karel Doorman*, a capability that the Deutsche Marine lacks.

To conclude, it is important to note that Germany and the Netherlands also rely on industrial partnerships. The Boxer IFV that equips the German and Dutch armies was produced at sites in both countries as part of a consortium between KMW and Rheinmetall. In the sea domain, the Dutch industrial firm Damen Naval was awarded the contract to manufacture four F126 frigates for the Deutsche Marine, demonstrating the high level of trust and integration between the two defense technological and industrial bases (DTIBs).

Scandinavia and the Baltic Sea: An area for cooperation with room to grow

The Scandinavian and Baltic region constitutes the second circle of defense cooperation with Germany. As elsewhere, NATO remains the framework of reference here. As the cofounder, alongside Poland and Denmark, of the Multinational Corps Northeast (MNC NE), established in Szczecin in 1999, Germany provides rotating command with the other two countries. Since 2016, Germany has also been the framework nation of the Baltic Maritime Component Command (BMCC), which includes the navies of eight NATO countries in the region, plus Norway. This ambitious project is coupled with a more informal structure created by the Deutsche Marine in 2015, the Baltic Commanders Conference (BCC), via which Germany tries to organize

^{171.} E. Braw, "Germany Is Quietly Building a European Army Under Its Command", Foreign Policy, May 22, 2021, available at: foreignpolicy.com.

^{172.} Joint Declaration – Government Consultations Netherlands – Germany, March 27, 2023.

^{173.} L. Lagneau, "L'Allemagne et les Pays-Bas vont renforcer leur coopération militaire grâce au F-35 et au CH-47 Chinook", *Zone militaire*, June 25, 2022, available at: www.opex360.com.

^{174.} L. Hoffmann, "German Armed Forces To Integrate Sea Battalion Into Dutch Navy", *Defense News*, February 5, 2016, available at: www.defensenews.com.

an annual meeting of the navies of all countries bordering the Baltic Sea, including Sweden and Finland, which are not currently NATO members. Although the German Navy's maritime security activities have increased, with patrols as well as participation in regular exercises like BALTOPS, Berlin is yet to convince all its partners—particularly Poland (see below)—of its ability to provide long-term leadership in the region.¹⁷⁵

Norway is perhaps currently the country with the largest-scale cooperation arrangements with Germany. The announcement in August 2021 that a consortium between TKMS and Kongsberg had won a major, €5.5 billion contract for the construction of six Type 212CD submarines, two for Germany and four for Norway, is probably the most compelling illustration of the importance of this partnership.¹⁷⁶

Beyond industrial projects, Norway now officially calls Germany its "most important partner in Europe", 177 with a cooperation agreement signed in August 2017. As a non-EU member with cultural ties to the United Kingdom and the Atlantic area, Norway's rapprochement with Germany in recent years has given it greater access to European markets and funds thanks to an association agreement. Since 2006, Oslo has enjoyed an administrative arrangement with the European Defense Agency, and, since 2021 and subject to certain criteria, it can receive money from the European Defense Fund. 178

Besides joint training in the sea and air domains—both countries will be part of the F-35 community—Norway is also trying to encourage Germany to concern itself more with Arctic issues, hitherto relatively neglected from a strategic perspective. The question of securing energy flows is also important; Germany has become significantly more dependent on Norwegian hydrocarbons to compensate for the drastic reduction in its Russian imports.

Non-NATO members as of 2022, Sweden and Finland also have more limited, although well established, cooperation arrangements with Germany: joint exercises, bilateral exchanges of views between general staffs, and occasional deployments on UN or EU missions, as

^{175.} A. Theussen, "Germany's Approach to Baltic Sea Security: Stepping Up, But Not Enough", *DIIS Policy Brief*, Danish Institute for International Studies, November 5, 2020, available at: www.diis.dk.

^{176. &}quot;Ceremony for the Major Submarine Contracts Between Norway and Germany", ThyssenKrupp, August 30, 2021, available at: www.thyssenkrupp-marinesystems.com.

^{177.} Regjeringas Tyskland-strategi 2019 [Norway's governmental strategy for Germany 2019], cited in: B. O. Knutsen, "German-Norwegian Relations in Security and Defense: What Kind of Partnership?", European View, Vol. 20, No. 1, 2021.

well as the acquisition of some German equipment—limited in Sweden by the presence of a strong local industry around Saab—constitute the core areas of cooperation. These two countries' decisions to join the FNC in 2018 and NATO itself in 2022 should, however, accelerate opportunities to form closer ties with Germany, as shown by their participation in initiatives like the ESSI.

Although geographically closest to Germany, Denmark now seems to be the Scandinavian country with the least military cooperation with Berlin. Despite being an original member of the FNC and an occasional client of the German defense industry, Copenhagen seems reluctant to enter into major integration initiatives with its southern neighbor, as shown by the German–Danish "Joint Action Plan" of August 2022, where the section dealing with security and defense issues was noticeably meager.¹⁷⁹ The two allies nevertheless maintain an important relationship thanks to their long-standing cocommand, alongside Poland, of the Multinational Corps Northeast.

Finally, the Baltic states are of course a major area of engagement for the Bundeswehr. Under Chancellor Schröder, Germany prevaricated for a long time on supporting their bids to join NATO for fear of antagonizing Russia. Nevertheless, the annexation of Crimea and Russia's aggression in the Donbas in 2014 compelled Germany to adopt a more supportive posture toward the Baltic states. At the Warsaw Summit in 2016, Berlin agreed to take command of one of the first four battlegroups of NATO's Enhanced Forward Presence (eFP).

Lithuania is clearly Berlin's preferred partner: a joint forces battalion is strategically deployed in the town of Rukla, near the Suwałki Gap, which figures prominently in scenarios of a Russian aggression in the Baltics. Just over a third of the unit's 1,600 soldiers are German, with the rest made up of Dutch, Belgian, Norwegian, and Czech soldiers. The battlegroup also coordinates closely with the "Iron Wolf" mechanized infantry brigade (named after a Lithuanian nationalist paramilitary group from the interwar period), which has been affiliated with Germany's 1st Panzerdivision since 2018, although not integrated to the same degree as the Dutch brigade.

The German presence in Lithuania is slated to be strengthened as part of the *Zeitenwende*, although the scale and speed of this plan are still up for debate. During a visit to Vilnius on June 7, 2022,

^{179. &}quot;Gemeinsamer Aktionsplan für die künftige deutsch-dänische Zusammenarbeit", Auswärtiges Amt, August 26, 2022, available at: www.auswaertiges-amt.de; J. Barbin and M. Runge Olesen, "Potentials for an Enhanced Danish-German Defense Partnership", Danish Institute for International Studies, December 2015, available at: pure.diis.dk.

Chancellor Scholz apparently promised his counterpart, President Gitanas Nausėda, that the battlegroup would be supplemented with a full brigade (the 41st Panzergrenadier Brigade) by 2026. This development was confirmed the following month at the Madrid Summit, where it was decided to expand the eFP battalions into brigades. 180

The process has nevertheless caused friction between the two countries, with Germany envisaging that just one of the brigade's command elements would be actually deployed in Lithuania, while Lithuania wanted to host all of its 4,000 soldiers. Finally, during a visit to the country in the leadup to the NATO summit in Vilnius, the defense minister Boris Pistorius announced that Germany was ready to deploy a full brigade in Lithuania on a permanent basis, on condition that adequate infrastructure was in place (barracks, training grounds, warehouses) for the deployment of 4,000 German soldiers and their families.

A future German-British rapprochement?

The German–British relationship has long remained in the shadow of both countries' partnerships with France.¹⁸² The United Kingdom and Germany have strong structural ties: the historical presence of British forces in Germany (British Army of the Rhine) during the Cold War, a mutual and fundamental commitment to NATO, as well as joint weapons programs like the Eurofighter Typhoon. But this relationship has been slow to translate into concrete integration projects.¹⁸³

The invasion of Crimea in 2014 and the NATO Wales Summit, as well as Brexit, led London to seek discussions with Berlin on a bilateral basis. It quickly became clear that Germany was less intransigent than France on the question of allowing third countries access to European programs, including in support for the defense industry. In 2018, the defense ministers of the two countries

^{180. &}quot;NATO's Military Presence in the East of the Alliance", NATO, December 21, 2022, available at: www.nato.int.

^{181.} L. Gibadło and J. Hyndle-Hussein, "Controversy over Deployment of German Brigade in Lithuania", OSW Centre for Eastern Studies, May 4, 2023, available at: www.osw.waw.pl.

^{182.} A. Pannier, "Complementarity or Competition? Franco-British Cooperation and the European Horizon of French Defense Policy", *Focus stratégique*, No. 96, Ifri, April 2020, available at: www.ifri.org.

^{183.} M. Shevin-Coetzee, "An Overlooked Alliance: A Case for Greater UK-German Defense Cooperation", ELN, June 4, 2019, available at: www.europeanleadershipnetwork.org.

^{184.} J. Urbanovská, M. Chovančík, and M. Brusenbauch Meislová, "German-UK Defense Cooperation Amid Brexit: Prospects for a New Bilateralism?", *European Security*, Vol. 31, No. 1, 2022, pp. 39-57.

published a "Joint Vision Statement" emphasizing their desire to strengthen ties between their armed forces and in the cyber domain.

Another meeting in 2021 advanced cooperation projects still further, for example with the creation of a binational unit, on the German–Dutch model, in the form of the Amphibious Engineer Battalion 130, which is intended to restore lost crossing capabilities through the joint acquisition of a Wide Wet Gap Crossing system. 185 The Royal Air Force and the Luftwaffe also conducted joint air defense patrols in 2023. 186 Germany's acquisition of a series of American platforms also used in British arsenals (F-35, CH-47, P-8) also seems likely to encourage cooperation in doctrine, training, and even maintenance. Finally, there are also industrial initiatives: the United Kingdom's participation in the ESSI represents an important opportunity for joint procurement, while industrial collaborations like the Rheinmetall BAE Systems Land joint venture could play a major role in the future. 187

Central and Eastern Europe: Between cooperation and competition

The final major traditional area of influence and partnership, Central and Eastern Europe is perhaps now the biggest growth area for German defense cooperation and its aspiration to military leadership in Europe. Berlin's ability to demonstrate its appeal and reliability to the countries in this region will determine its ability to position itself as Europe's military "hub", whether from a NATO or EU perspective. Four countries are the most prominent in this respect: two with which Germany has promising relations—the Czech Republic and Romania—and two that pose more significant challenges—Poland and Hungary.

Of these four countries, the Czech Republic is probably the most obvious candidate at present for increased operational integration with Germany. During his state visit to Berlin in March 2023, the Czech president Petr Pavel called on Germany to fully accept its role as the European leader on security issues. Already highly integrated

^{185.} G. Allison, "UK Spends £1.54m on NATO 'Wide Wet Gap' Crossing Project", *UK Defense Journal*, April 28, 2023, available at: ukdefensejournal.org.uk.

^{186.} E. Arnold, "UK-German Defense & Security Cooperation", Friedrich Ebert Stiftung, May 2023, available at: library.fes.de; "RAF and German Air Force Typhoons Intercept Russian Aircraft in First Joint NATO Air Policing Scramble", Ministry of Defense, March 15, 2023, available at: www.gov.uk.

^{187.} Arnold, "UK-German Defense & Security Cooperation", $op.\ cit.$

^{188.} K. Dębiec, "The Czech President's Visit to Berlin: A Call for German Leadership", OSW Centre for Eastern Studies, March 24, 2023, available at: www.osw.waw.pl.

with Germany on the economic level (a third of Czech foreign trade is with Germany), the Czech Republic joined its FNC in 2014 with the aim of building closer ties with the Bundeswehr in order to improve interoperability and enhance its standing within NATO. Following the Dutch model, the Czech army's 4th Rapid Deployment Brigade was integrated into the 10th Panzerdivision in 2017.

In the industrial sector, by contrast, the vitality of the Czech defense industry seems to have led to a tendency to keep German industrial players at a distance. Other than the Leopard 2, the Czech armed forces have not acquired equipment from their neighbor, preferring local champions like Czechoslovak Group or more distant suppliers in France (Nexter's Titus and CAESAR, partly manufactured locally) or Sweden (the Gripen, but also the Hägglunds/Bofors CV90).

The situation is different in Romania, where there is both industrial and operational integration. Following the Dutch, Czech, and Lithuanian models, Bucharest affiliated its 81st Mechanized Brigade with the Bundeswehr's Rapid Forces Division (DSK). But in the Romanian case, the integration also extends into the industrial domain, with a strong presence of German companies in the Romanian defense sector. After winning a billion-dollar contract in 2017 for the manufacture of 600 Boxers—half at Romanian sites—Rheinmetall announced in April 2023, during Olaf Scholz's state visit, that it would open a "logistics hub" in Satu Mare, near the Ukrainian border, for the maintenance of PzH-2000 howitzers, Leopard 2 and Challenger tanks, and Marder and Fuchs armored vehicles provided to Ukraine.¹⁹⁰

Hungary is a trickier partner, despite numerous existing cooperation arrangements. As part of its "Zrínyi 2026" rearmament program, Hungary turned to Germany with a flood of orders (Leopard 2, PzH-2000, Lynx, Airbus helicopters, etc.), a considerable portion of which would be manufactured locally. Operational cooperation, on the other hand, remains low, hindered for several years by the tense

^{189.} J. Urbanovská, M. Chovančík, and S. Brajerčíková, "Minilateral Cooperation in the EU's Post-Brexit Common Security and Defense Policy: Germany and the Visegrád Countries", *Europe-Asia Studies*, Vol. 74, No. 3, 2022, pp. 402-425.

^{190.} S. Morgan, "Romania and Germany Increase Defense Cooperation", *Euractiv*, March 10, 2017, available at: www.euractiv.com; "Rheinmetall Completing Repair Hub in Romania for Ukrainian Equipment", *Defense-Aerospace.com*, April 3, 2023, available at: www.defense-aerospace.com.

^{191.} Urbanovská, Chovančík, and Brajerčíková, "Minilateral Cooperation", *op. cit.*; "Hungary to Extend Cooperation with German Defense Industry Giant Rheinmetall", Cabinet Office of the Prime Minister of Hungary, May 18, 2021, available at: 2015-2022.miniszterelnok.hu.

political relationship with Viktor Orbán, who rejects European projects led by Germany. ¹⁹² Initially civil thanks to his strong ties with the Bavarian CSU, the relationship soured in 2018 because of the Hungarian president's repeated insults. Political interest in greater military integration has been stymied by the emergence of the Jamaica coalition in 2021, with a foreign minister who has little inclination to tolerate the Hungarian leader's anti-democratic actions or his links with Russia.

Finally, Poland represents the biggest challenge for Germany. The two countries laid the groundwork for a robust defense cooperation in the 1990s during the first NATO enlargement. The creation, with Danish support, of the Multinational Corps Northeast in 1997 established Szczecin as NATO's first base east of the former Iron Curtain. Poland's procurement in 2002 of an initial batch of Leopard 2 tanks from Germany and an increase in the number of joint exercises seemed to herald a strong partnership, which was confirmed in 2014 when Poland joined the German FNC.

Nevertheless, the rise to power of the Polish nationalist Law and Justice (PiS) party in 2015 soon led to a deterioration of the relationship. Criticized by Germany and the European Commission for his violations of the rule of law, the PiS leader, Jarosław Kaczyński, was quick to accuse Berlin of wanting to transform the European Union into a "fourth Reich" in 2021.¹9⁴ Openly Germanophobic, the party has gradually developed a revanchist rhetoric consisting of demands for an apology for German aggression and occupation during the Second World War, as well as financial reparations to the tune of €1.3 trillion.

In the strictly military sphere, Polish hostility to any overarching European defense project that might jeopardize transatlantic ties has occasionally thwarted Germany's search for greater balance and complementarity within the EU and NATO as well as the emergence of a European pillar within NATO. The Trump years provided a particularly clear demonstration of the divergence between Berlin and Warsaw, with the former affronted by the US president's transactional approach, while the latter made the most of it, as shown by the project to build a "Fort Trump" in Poland proposed in 2020 by President Andrzej Duda. Finally, German ambivalence about Russia

^{192.} M. Karnitschnig, "The End of Germany's Orbán Affair", *Politico*, March 4, 2019, available at: www.politico.eu.

^{193.} M. Hadeed and M. Sus, "Germany and the Baltic Sea Region", *PRISM*, Vol. 10, No. 2, 2023, pp. 149-165.

^{194.} R. Minder and L. Pitel, "Poland and Germany: The Feud at the Heart of Europe", Financial Times, May 2, 2023, available at: www.ft.com.

until the eve of the invasion of Ukraine, as seen particularly in the Nord Stream 2 pipeline project, represented a growing bone of contention between the two countries.¹⁹⁵

Another irritant is Poland's massive investment in recent years, reaching almost frenzied levels after the invasion of Ukraine. In the industrial sector, although the Polish market has never been very open to European companies—preferring American and more recently Korean ones—German companies were among the few to retain contracts, particularly for the Leopard 2 tank.¹⁹⁶ The war in Ukraine in 2022 shook up these connections. Poland felt Germany's inability to honor its "Ringtausch" commitments (see above) acutely: Warsaw was expecting to receive forty-four Leopard 2A4s in return for delivering 250 T-72s to Ukraine, but Berlin had to admit that it would only be able to deliver twenty by April 2023, precipitating Poland's decision to turn to the United States and South Korea instead.¹⁹⁷

While appreciating the *Zeitenwende*, Warsaw also wanted to ensure that words were followed by actions. In April 2023, the Polish foreign minister Zbigniew Rau presented Berlin with a list of demands, including German support for terminating the NATO-Russia Founding Act, which severely restricted the permanent deployment of "significant military forces". The minister's statement also revealed Poland's new ambition to become a European leader in the security and defense sphere.

Such a project, driven by defense spending and substantial capabilities, would hamper Germany's project of establishing itself as the framework nation for a geopolitical clientele in Central and Eastern Europe, an ambition shared by Warsaw.¹⁹⁹ Reading between the lines, the Polish case reveals one of the limitations of German leadership, which is attractive to states with limited military resources but struggles to stand firm when faced with major players that want to keep control of their own strategic and capability decisions, or even impose them upon others.

^{195.} J. Dempsey, "The Poison in Polish-German Relations", Carnegie Europe, November 29, 2022, available at: <u>carnegieeurope.eu</u>.

^{196.} Urbanovská, Chovančík, and Brajerčíková, "Minilateral Cooperation", op. cit.

^{197.} Mitzer and Oliemans, "Flawed but Commendable".

^{198.} M. Boyse, "Breaking the German-Polish Deadlock", *GIS Report*, May 5, 2023, available at: www.gisreportsonline.com.

^{199.} D. Fried and A. Korewa, "Poland Makes Its Case for European Leadership", *Atlantic Council*, May 5, 2023, available at: www.atlanticcouncil.org.

Implications and recommendations

France, with its roughly equal or even inferior means, persists in trying to maintain a strategy of global scope (Africa, Near and Middle East, Indo-Pacific) while also promoting a discourse of European strategic autonomy. The *Zeitenwende* materialized a radically different course for Germany in favor of its close geographical and political neighbors without excluding more distant, ad hoc partners. If all of Germany's projects—or even just a majority of them—reach completion, the Franco–German duo will become even more imbalanced than it already is. Faced with this prospect, we must attempt to understand what Germany's increasing power means for France's position. On that basis, we will offer a number of recommendations based on the fact that the Franco–German relationship already seems, from a military perspective, dangerously tenuous.

Implications for France

As one of the major legacies of the second half of the twentieth century, the Franco-German duo has long been subjected to a certain political fetishism on both sides of the Rhine. Despite repeated attempts to "rekindle the flame", most recent projects have been hampered by differences of opinion, disagreements, or even a lack of interest. This stagnation of the politico-strategic and industrial relationship should urge France to profoundly rethink both its expectations of the relationship and the necessary conditions for restoring its lost momentum.

A stagnant dynamic?

Although it had precedents in the 1950s,²⁰⁰ the defense partnership between France and Germany officially dates back to the Élysée Treaty of January 22, 1963, in which the personal relationship between the French president and the German chancellor played a leading role. Its focus was on "reconciliation" after three wars that

had shaped each country's perception of the other over the course of a century.

Although the military dimension remained discreet for the fifteen years following the signing of the treaty, it became more prominent in the late 1980s and early 1990s under Mitterrand and Kohl in reaction to the far-reaching transformation of the European security order at the time. The creation of the Franco–German Defense and Security Council (CFADS) by an Additional Protocol to the Élysée Treaty, signed on January 22, 1988, was the starting point for a number of initiatives that are still ongoing to this day:

- The Franco-German Brigade (FGB), created in 1989. Its staff and mixed command and support battalion are stationed in Müllheim, Germany, and it comprises 5,000 French and German soldiers.
- Eurocorps, created in 1992, which includes French, German, Belgian, Spanish, and Luxembourgish soldiers and can be used by the EU and NATO.
- An officer exchange and joint training program, in place since 1991, which now covers around thirty French and German officer posts within the general staffs and central directorates of the respective defense ministries and armed forces.
- The Franco-German Naval Force (FNFA), launched in 1992 and initially dedicated to training and practice as part of joint exercises.
- The Franco-German training center for forward air controllers (CFAA) in Nancy.

Although these operational structures still exist on paper, they all seem to have fizzled out. The FGB has never been deployed as such—there have been "synchronized" deployments of French and German units in Afghanistan and Mali, but only under separate commands or even as part of different operations—and suffers from the absence of a shared military culture, not to mention the lack of linguistic integration. Eurocorps has long been dormant despite its designation as one of NATO's seven "Rapid Deployable Corps". As for the FNFA, it seems to have fallen into disuse since the early 2010s.

Conceptually and philosophically dated, these initiatives tend to be internally disparaged or ignored, although they never fail to be wheeled out at events celebrating the Franco–German partnership. The 2017 election of Emmanuel Macron, with his high European ambitions, saw Paris try to revive this slumbering relationship, particularly in his speech at the Sorbonne two months later, when he

put forward the idea of a "European army".²⁰¹ From the outset, however, Berlin was cautious or even skeptical about the feasibility and compatibility of these projects, as well as the risk of duplicating NATO or EU frameworks like the FNC or PESCO.²⁰²

Unable to advance operational cooperation any further, France now seems to be prioritizing weapons projects. First mentioned in the CFADS in July 2013, the FCAS and MGCS are the figureheads of the Franco–German partnership. But here too, the track record of cooperation seems patchy.²⁰³

- At least two main battle tank projects prior to the 2017 MGCS have been initiated and then terminated, once in 1963 and a second time in 1982.
- The same goes for fighter aircraft projects, where the FCAS is just the most recent avatar of several abortive attempts. The most well-known of these was the European fighter aircraft project that culminated in the Eurofighter program, which France abandoned in the late 1980s in favor of the Rafale.²⁰⁴
- Transport aviation has been the most successful area of cooperation, as shown by the C-160 Transall and its successor the Airbus A400M, which got off to a rocky start.
- Helicopters have featured prominently in joint projects, with the Tiger launched in the 1980s, and the NH90 or H-145 program.
- Finally, the sea domain, where cooperation has been structured around the Atlantique 1 and especially Atlantique 2 maritime patrol platforms, despite the failure of the Atlantique 3.

The strategic foundations of a mutual misunderstanding

The current difficulties facing the Franco-German defense partnership raise questions about the underlying reasons for the inability to overcome different strategic concepts, a divergence that has increased in recent years.

^{201. &}quot;Initiative pour l'Europe – Discours d'Emmanuel Macron pour une Europe souveraine, unie, démocratique", Élysée, September 26, 2017, available at: www.elysee.fr. 202. T. Wieder, "Le discours de Macron sur l'Europe diversement apprécié à Berlin", *Le Monde*, September 27, 2017, available at: www.lemonde.fr.

^{203.} D. Puhl, "La coopération en matière d'armement entre la France et l'Allemagne: Un terrain d'entente impossible?", *Visions franco-allemandes*, No. 31, Ifri, 2020, available at: www.ifri.org.

^{204.} Y. Droit, "L'European Fighter Aircraft: Le rendez-vous manqué de la coopération aéronautique européenne 1978-1985", *Histoire, économie & société*, Vol. 29, No. 4, 2010, pp. 103-116.

First, the transformation of 2014 was insufficiently appreciated in France, particularly the turning point represented by the FNC, regarding which Paris has always been hesitant, to say the least. Nevertheless, it was a crucial moment, marking Germany's return to a culture of collective defense in a leadership role that is transforming the nature of its partnerships. Germany now sees itself as a "framework nation" integrating smaller European powers, a position based on the Europe-wide distribution of tasks. While France—and to a certain extent the United Kingdom—maintains an intervention and force projection capability outside Europe, Germany is more focused on the Euro-Atlantic area, where it dominates the question of continental defense.

As a result, Germany prioritizes cooperation with the United States on the one hand (to ensure the best possible relationship with NATO) and with "small countries" on the other. Integration with "peers" at the same level—like France, but also the United Kingdom or, in future, Poland—is not where most of its efforts are directed. It only authorizes major capability cooperation projects under significant political pressure, as was the case with the FCAS and the MGCS in 2017, which were announced largely without input from the German military-industrial technostructure. This goal, now known as the *Zeitenwende*, is being pursued at the cost of a severely reduced ambition in other areas of the world (Africa, Middle East, Indo-Pacific), where Germany aims to do no more than "have a presence". Other than that, it will focus more on civil approaches, particularly in the form of development aid and economic partnerships.

This development is poorly understood in France, where the expectation is still often that a change in strategic culture will translate into an evolution toward a logic of deployment and external operations. For Germany, the *Zeitenwende* is above all a "return to the fundamentals" of NATO and transatlantic collective defense. In many ways, it represents the triumph of the faction within the Ministry of Defense sometimes dubbed "the Americans"—who have always structurally dominated the minority of officers sometimes called "the French". Germany's unambiguous aim is now the constitution of an army focused on the eastern flank for the purposes of defense and deterrence (DDA). It is, therefore, not so much a deployment army as a conventional deterrent force, in contrast to the strategic culture in France, where deterrence refers strictly to nuclear deterrence and where the conventional forces are oriented primarily toward crisis management.

In this respect, France's hesitancy (to say the least) regarding NATO in recent years and its insistence on "European strategic autonomy", which has always been perceived as anti-Americanism, make cooperation with Paris a rather unappealing prospect for the German defense community. Even the conception of the European framework contained in the EU's CSDP is far from offering a shared frame of reference. Over and above tensions around the capture of European resources by the respective industrial bases, and France's tendency to privilege ad hoc, French-led cooperation initiatives like the EI2, Germany reproaches Paris for a European approach that is often seen as on autopilot. Totally absorbed in its ambition for national strategic autonomy, there is sometimes a perception that France only engages in European cooperation ventures when forced to due to the scale of the projects involved.

These hesitations, which feature regularly in France's discourse and stance, lead to doubts in Germany about the reliability of its French partner. When the argument is raised of the "American risk" in the event of a Republican candidate winning the 2024 presidential election and prolonging the Trumpist line of hostility to NATO, it is not uncommon to hear in response that the French political trajectory is just as concerning, if not more. And while some of President Macron's language (on the future of NATO, the nature of the Russian threat, or Europe's position toward China and Taiwan) is already seen as questionable in Germany, the prospect of an opposition with strongly sovereignist inclinations, whether on the left in La France Insoumise or on the right in the National Rally, causes even more anxiety.²⁰⁵

A difficult industrial cooperation

The MAWS program is dead and buried, the CIFS has been postponed indefinitely, the FCAS is in the doldrums, and the MGCS is nonfunctional. All these programs, announced with great political fanfare, seem to have stumbled over the classic problems affecting cooperation projects: clashes between the French and German capability timelines; friction between long-standing industrial rivals who must suddenly work as partners; and the different requirements of the two militaries. These projects were intended as symbols of Franco–German friendship, a political motivation that did not fully consider the potential obstacles, perhaps in the hope that political will would manage to overcome them. Although it was impossible to predict at the time these cooperation programs were launched, the conflict in Ukraine has also shaken the assumptions on which they were founded, with the *Zeitenwende* implying a wholesale transformation of Germany's capability needs and timelines.

The difficulties associated with competition between partners are exacerbated further by a marked asymmetry in terms of industrial weight. Rheinmetall and its 25,000 employees is larger and more influential than Nexter (4,000 employees) and KMW (5,000) combined. The imbalance is especially flagrant in the FCAS: the 120,000 employees of the multinational Airbus far outnumber the 12,000 employees of Dassault and all its subsidiaries. Competition is also accompanied by a deep-rooted animosity between certain players: Dassault remembers Airbus's takeover attempt (when it was EADS) in the late 1990s. Moreover, the considerable disparity of resources between the two has led to Dassault adopting a defensive stance to protect its patents and expertise against the giant Airbus, which has made less headway in the field of fighter aircraft. And while Nexter and KMW present a united front to criticize the "outrageous" communications of Rheinmetall, specifically around the KF51, KMW itself has a special relationship with Rheinmetall: the two firms have partnered on numerous projects, particularly the Leopard 2, but the Bode-Wegmann family that owns KMW fears an aggressive takeover from Rheinmetall.206

This asymmetry also applies to the partners' respective levels of expertise. Buoyed by the international success of the Leopard 1 and 2-4,700 and 3,200 units produced respectively-German industry sees French expertise as unnecessary in this field, having been disqualified in its eyes by the commercial failure of the Leclerc tank (only 876 units produced). By contrast, the success of the Rafale makes Dassault feel entitled to develop the French fighter aircraft of the future alone, with Airbus's experience in this area limited to its participation in the Eurofighter program alongside the Italian firm Leonardo and the British company BAE Systems. But this attitude overlooks the fact that the FCAS is not just about developing a fighter aircraft, but also includes a fighter-bomber-admittedly with a large number of integration keys—a combat cloud, and drones of various sizes, two fields where Dassault has only patchy experience. It also overlooks the fact that, despite the recent commercial success of the Rafale, the latter is still produced and ordered in lower quantities than the Eurofighter-453 versus 575 units respectively.

Beyond the development of joint industrial programs, the exportation of military equipment remains a problematic issue due to Germany's numerous controls and restrictions. An agreement was reached with the Aachen Treaty in 2019, which stipulated that Bundestag authorization was not required for exports containing less

than 10% German-origin components (the "de minimis" principle). Both parties also committed to facilitating the exportation of products resulting from industrial and intergovernmental cooperation arrangements.207 This 10% threshold, already very low, nevertheless contested by some on the German Left, particularly the Greens, who are seeking to raise it, causing concern even within the German defense industry.²⁰⁸ The Green MEP Sven Giegold, who is well known for his intransigence on the matter, suggested that German diplomacy should adopt a more restrictive position on arms exports in line with "German and European rules".209 This could jeopardize the progress made by the Aachen Treaty and make it harder to export the products of cooperation programs. The question is especially critical given that exportation is a sine qua non of the project's financial viability: if France and Germany were the only buyers for the MGCS or the FCAS, the distribution of development costs would make the unit price for both systems skyrocket.

Recommendations

France has long reassured itself on the subject of Germany by emphasizing its relative advantage when it comes to defense. With its independent nuclear deterrent, its comprehensive army model, a level of operational experience that is unparalleled in Europe, and a robust defense technological and industrial base, France at one time seemed to be in a position to exert political influence over Germany and to dictate the terms of the relationship, drawing a number of other European nations behind it.

Nevertheless, France's exceptional position in Europe has been slow to translate into influence, instead running the risk of "splendid isolation". Germany's resolute Atlanticism and its careful implementation of multilateral command and capability cooperation structures have actually placed it in a better position to take on a leadership role. But Germany is not without its own limitations and tends to get bogged down by persistent strategic timidity, slow decision-making due to the need for national political consensus on defense issues, as well as structural tensions with certain partners, primarily Poland.

^{208.} Interviews with German industrial stakeholders, spring 2023.

^{209.} S. Giegold, "Federal Ministry of Economic Affairs Presents Key Points for a Values-Based Arms Export Law", October 15, 2022, available at: sven-giegold.de.

In many respects, and despite declarations of friendship or even "strategic intimacy", France is now seen by the German defense community as a partner of declining importance, behind not just the United States but also the Netherlands, Norway, Lithuania, and even Romania, with which Germany has higher levels of integration. France must take this into account as it rethinks a partnership that it still, for its part, sees as vital.

Reviving the Franco-German dynamic at the politico-strategic level thus requires an intellectual aggiornamento in Paris regarding Germany's current status and future trajectory. As long as Germany sees itself as a framework nation and the base of a "European pillar" of NATO, any ad hoc bilateral or minilateral proposals launched outside the NATO and/or EU frameworks, whether operational (like the EI2) or capability-based (like the FCAS and the MGCS), are likely to be met with polite interest followed by familiar frustrations. Where France probably could surprise Germany would be by taking control of these structures and suggesting initiatives—in all combat domains—within the framework offered by NATO. Starting from here, initiatives could then be envisaged for each branch of the armed forces.

Land Army

Despite not receiving the lion's share of the *Sondervermögen*, the Heer displays considerable capability ambitions. Whether or not it manages to fully accomplish its program, it is set to become a major player in Europe again through its ambition to command an army corps on the "eastern flank". In the absence of a similar dynamic in the French Army, the latter must be able to maintain and strengthen its ties with its German counterpart, which is increasing its partnerships and cooperations with other European land forces.

The Franco–German Brigade (FGB) seems to be the ideal foundation for reviving this relationship after years of uncertainty about its usefulness and its future. With questions apparently being asked about the unit's continued existence on the other side of the Rhine, it must be urgently revitalized. The question of its integration into divisional structures is probably key: its incorporation into France's 1st Division at the same time as Germany's 10th Panzerdivision is far from straightforward. One solution would be to abandon the current system of dual command in favor of a rotating command, whereby the brigade would be transferred every two to three years between exclusive French command and exclusive German command. This alternation would anchor it more firmly in the respective orders of battle.

Another structural weakness of the FGB is its lack of human and cultural cohesion. While German–Dutch units operate in English or German, the FGB remains hampered by a language barrier. As part of a French drive to work more effectively with its allies, a major effort could be launched to accustom officers of the 1st Infantry Regiment and the 3rd Hussars Regiment to commanding in English. To increase cultural integration between units, a return to the co-billeting of French and German regiments, abandoned when the military map was redrawn under Nicolas Sarkozy's presidency, could also be envisaged.²¹⁰

Deepening and consolidating Franco-German cooperation also calls for new forms of exchange, particularly in terms of new shared equipment. While the question of main battle tanks is currently at the heart of Franco-German capability cooperation in the land domain, it might be useful to envisage sustained equipment exchanges, for example with a German squadron moving to the Leclerc and a French squadron moving to the Leopard 2. This system could lead to better understanding of the other partner's equipment and doctrines and facilitate the emergence of shared ideas, indispensable for the use of similar equipment.

The triennial repetition of the ORION exercises represents another valuable opportunity for deepening ties between the two armies. Having participated in the 2023 exercise as part of the adversary force (FORAD), German FGB units could in future play a more significant role on the "coalition" side. A system to twin similar or complementary French and German units could be established, enabling joint participation, not just in ORION exercises, but more broadly in NATO land exercises like Cold Response 2022. Regular joint practices applied to a preexisting framework like NATO would not just strengthen ties but also demonstrate the reality of the "Franco–German duo" to other allies.

On the capability side, the MGCS is currently in danger, with many in Germany no longer seeing a future for it. As things stand, a firm order from the KNDS alliance for several units of the E-MBT (Enhanced Main Battle Tank) prototype would anchor the Franco-German joint venture more securely in the industrial landscape and give it a concrete reality. Even a relatively small order for a transitional E-MBT fleet would reduce the burden on the remaining Leclerc tanks, allowing them to last until 2040 and take over from the MGCS, a prospect that is difficult to imagine under current circumstances. From a purely industrial perspective, this would also

allow Nexter to retain an industrial competence that has been underused since production of the Leclerc came to an end and that may be impossible to maintain until completion of the MGCS.

Although the current French Military Programming Law chose to leave the question of main battle tanks to one side, it does address the updating of French deep fires capabilities given the doubts around the continuation of the Unitary Rocket Launcher (LRU) beyond 2027. If a national solution is chosen to replace the LRU, future studies could move beyond the narrow focus on rocket artillery and lay the groundwork for the replacement of cannon artillery without waiting for the launch of a CIFS system that has been postponed until 2045.

Air and Space Force

The relationship between the Luftwaffe and the French Air and Space Force remains problematic, with the two forces hardly having any equipment in common. Their fighter aircraft, tanker aircraft, utility helicopters, air defense systems, and drones are all different; the A400M, the H145 helicopter, and the Euromale are the only elements that could form a shared capability base. As for sensors, the GM-403 ground-based radar is one of the rare pieces of equipment used by both forces. The Luftwaffe's recent decisions regarding the F-35 or the future of the ESSI risk creating even more distance between the two forces, and it is hard to identify clear areas for cooperation, although the FCAS seems to be progressing despite its difficulties.

Some long-standing cooperation projects are still ongoing: the Air Support Training Center (CFAA) in Nancy trains French and German close air support specialists, but its future remains uncertain, with the privatization of certain services having been floated to address the lack of available aircraft.²¹¹ The Franco–German agreement on the center celebrated its tenth anniversary in 2021; if partial privatization is necessary, care must be taken not to weaken the links that have been established.²¹²

The Franco-German Joint Tactical Airlift Squadron, created in September 2021 at air base 105 in Evreux, is an initiative that should be encouraged for the sake of better operational integration. In the long run, the creation of a twin squadron of A400M planes in

^{211.} P. Chapleau, "Le Centre de formation à l'appui aérien qui forme les JTAC tenté par l'externalisation", *Lignes de Défense*, July 13, 2020, available at: lignesdedefense.blogs.ouest-france.fr.

^{212. &}quot;75e anniversaire de la création de l'école d'appui aérien à Nancy", Air and Space Force, September 21, 2019, available at: <u>air.defense.gouv.fr</u>.

Germany would be logically consistent as well as making the most of one of the only aircraft used by both forces.

Finally, the Coordination Center for the Polygone (also known as the Multinational Aircrew Electronic Warfare Tactics Facility) allows the French, German, and American air forces to train for various simulated surface-to-air threats. This cooperation program survived the dissolution of the associated electronic warfare squadron 48/530 in June 2014, which deserves to be rehabilitated. The emphasis on new surface-to-air threats and the need to regain competencies in the suppression of enemy air defenses (SEAD) could justify the recapitalization of the Polygone. The acquisition by Eastern European partners of relatively recent S-300 surface-to-air missiles could make this training facility significantly more attractive. Finally, access to the F-35 in Germany could allow the two countries to explore the potential of a reduced radar cross-section platform when developing the FCAS specifications.

If the success of the F-35 in Europe caused interoperability issues for European air forces, its arrival in Germany poses new ones. Berlin and Paris are currently seeking to develop a sovereign combat cloud linked to the FCAS, but its design must be compatible with its counterpart used by the F-35 to ensure internal interoperability within the Luftwaffe. Although the FCAS cloud is still in the planning phase, this is causing countless difficulties because of Lockheed Martin's reluctance to hand over the keys to its product to European manufacturers. Some experts we interviewed had doubts about the very future of the FCAS as currently envisaged because of this potentially insurmountable obstacle.²¹³ Given the extreme complexity of a combat cloud, it might be impossible to make two separately developed clouds successfully coexist, let alone interact. With the F-35 already way ahead of the planned FCAS, this issue should be taken into consideration from the outset. Although total interoperability seems unlikely, efforts should be made to ensure the highest possible level of compatibility. Moreover, this problem goes beyond the Franco-German relationship, because most major NATO nations are set to be equipped with F-35s.

Caught unawares by the announcement of the ESSI in fall 2022, France is trying to make its voice heard on the subject of air defense in Europe, particularly via a conference of European defense ministers planned for June 19, 2023. Although France is already a member, alongside Italy, of the Eurosam consortium, the latter remains outside the ESSI, and the capability sectors corresponding to

its products have been allocated to other industrial actors. France thus does not have many options for influencing the initiative other than acting decisively and joining the project on condition that certain Eurosam products are used.

The question of combating hypersonic threats, which could have been an asset to France, now seems to be on the chopping block: the European TWISTER program, intended to develop a system to detect and intercept hypersonic missiles, is being overtaken by other, complementary European initiatives, particularly German and Spanish in the form of the ODIN'S EYE and EU HYDE programs.²¹⁴ Moreover, policymakers might question the benefits of investing specifically in hypersonic interception given Ukraine's recent interception of several probably hypersonic Russian missiles using conventional Patriots.

Navy

Germany's decision to refocus on the Baltic and the North Atlantic risks creating distance between the Deutsche Marine and the French Navy, while any German moves into the Indo-Pacific will now be under a more pronounced diplomatic label, limiting the possibility for cooperation in the region. In fact, opportunities for cooperation between the two navies could reduce overall, despite the numerous initiatives launched in the 1990s.

Activated for the first time in 1992, the Franco-German Naval Force (FNFA) was intended to regularly bring the two countries' fleets together for joint exercises. With the last session held in 2013, the initiative seems to have fallen into disuse. The French Students in Training at the German Naval Academy program has organized exchanges between the French and German naval training academies since 1993. Generally, other than NATO or European exercises and operations, the level of cooperation between the two navies seems to have reduced too far.

The profound differences in strategic culture between a French Navy with global ambitions and a German Navy wishing to focus more on its natural area limit the interest and suitability of bilateral cooperation. Nevertheless, the importance ascribed to the Baltic by Germany, as seen in multiple initiatives such as the Baltic Commanders Conference, could be a way for France to enter a theater

^{214.} L. Lagneau, "La France ne participera pas au projet européen d'intercepteur endoatmosphérique de missiles hypersoniques", *Zone militaire*, July 27, 2022, available at: www.opex360.com.

where its presence is mostly limited to regional NATO exercises like BALTOPS in 2022: joining exercises conducted by the nations bordering the Baltic would give the French Navy more presence in the region, especially with Sweden, with which France signed a partnership agreement in 2017.

In terms of capabilities, Germany's drone ambitions raise questions about France's naval drone strategy, with the few existing French programs mostly representing niche (mine warfare) or limited (reconnaissance) capabilities. Developed in cooperation with the US Navy, a leader in the field, Germany's aim to have a third of its platforms dronized or dronizable by 2035 might seem overambitious given Germany's difficulties, but it is nevertheless part of a coherent overall strategy. If the Deutsche Marine achieves half of its objectives in this field, it will have more drones than the French Navy, and those it has will be capable of performing more varied missions.

In this sense, it might be sensible not to close the MAWS program: although the question of maritime patrol aircraft has been settled, that of naval drones could lead to important developments, with German ambitions in this field matched by corresponding industrial competences. The development of the FCAS combat cloud must consider these naval elements at the earliest possible stage in order to ultimately offer a coherent set of capabilities. This would also be useful for France, which plans on using its future machines from its aircraft carrier.

Conclusion

The new era announced by Olaf Scholz on February 27, 2022, was certainly not wishful thinking. Behind the occasionally vague language of the *Zeitenwende*, there is a profound transformation taking place of German military capabilities and the place Berlin wants to occupy in the defense of the European continent. While it is important not to underestimate this development, it should also be noted that Germany still has a long way to go before it can achieve its stated ambitions.

Among the major obstacles already causing problems is that of human resources if the Bundeswehr cannot break through the ceiling of 180,000 personnel in its ranks. The second challenge is financial, in particular Germany's ability to hit the defense spending target of 2% of GDP once the *Sondervermögen* has been used up, as well as the feasibility of long-term maintenance for equipment acquired through the special fund. The third and final challenge is the key to the two previous ones: the need to make the shift in political culture permanent in order to ensure defense remains a central rather than peripheral mission of the Federal Republic. In this respect, the momentum seems to be with an energetic defense minister who could succeed in imposing his determination on a political consensus that can still seem fragile at times.

Despite this development, France—and sometimes also the United Kingdom and the United States—generally remains dubious, if not skeptical, about Berlin's efforts, questioning the Bundeswehr's ability to transform itself into a rapidly deployable, mission-oriented army that can conduct autonomous operations. This French concept of what makes a "first-rate" army is derived from an expeditionary culture formed over several decades of external operations. It does not correspond to the stated ambitions of the German *Zeitenwende*, the strategic horizon of which goes no further than the collective defense of the European continent.

Like the Bundeswehr during the Cold War, the modern Bundeswehr does not envisage itself as a warfighting military but as a defense and "conventional deterrence" force. In contrast to the period of the 1960s to 1980s, however, Germany is no longer on the front line and has no desire to serve as the battlefield in a major confrontation. Another major difference is that, although the United States remains the most important partner in Germany's defense strategy, it now wants to see the European nations take on greater operational

autonomy, while remaining integrated with Washington through the command system and the interoperability of equipment. This is precisely the path that Germany has decided to take in order to position itself as the strategic hub of what might eventually emerge as a European pillar of NATO.

Continuing the work begun in 2014 on the framework nation concept, the Bundeswehr thus increasingly presents itself as integrating the "small nations" (the Netherlands, Lithuania, Norway, the Czech Republic, etc.) through its command system, but also its logistical and industrial architecture. These partnerships constitute an important geopolitical clientele that could effectively make Germany into a major military power thanks to its numerous affiliates.

Although Berlin has the means to integrate European armed forces with more modest capabilities, this development raises the question of its ability to work with other major defense actors on the continent. The nature of its partnership with the United Kingdom still seems vague, as does its relationship with Italy, which is marked as much by rivalries as complementarities. Poland, once happy to cozy up with Berlin, has become more independent, as evidenced by its determination to compete with Germany for the status of dominant military power in Central Europe.

Given all of this, the future of the Franco-German military relationship remains very uncertain. The trajectories of their respective armed forces seem resolutely different, with on one side a warfighting army backed by nuclear power, with global ambitions and determined to keep its capabilities autonomous even if that means sacrificing depth; and on the other a conventional deterrent force integrated into a transatlantic system and primarily oriented toward Europe's eastern flank. The frequent friction between the countries' industrial bases reflects their different outlooks, which can further exacerbate the divergences in a context of economic competition.

The challenges facing the Franco-German relationship are, therefore, more than just circumstantial. Although there are measures that could be taken to recover some lost momentum, probably by opening up to other key partners like Italy, Spain, or Poland, full clarification would require a wide-reaching revision of the strategic orientation of one or the other country. While France has made itself the champion of a European strategic autonomy about which it struggles to convince the rest of Europe, the *Zeitenwende* could turn the Bundeswehr into the framework of a veritable European army. Such an army would be much more integrated with NATO than Paris might have wanted, but as a result much more attractive for European countries who do not see any other route to their security.





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