



Wilfried
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Why Europe Needs a Nuclear Deterrent:

A Critical Appraisal

Adérito Vicente



Credits

The Wilfried Martens Centre for European Studies is the political foundation and think tank of the European People's Party (EPP), dedicated to the promotion of Christian Democrat, conservative and like-minded political values.

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About the Martens Centre



The Wilfried Martens Centre for European Studies, established in 2007, is the political foundation and think tank of the European People's Party (EPP). The Martens Centre embodies a pan-European mindset, promoting Christian Democrat, conservative and like-minded political values. It serves as a framework for national political foundations linked to member parties of the EPP. It currently has 30 member foundations and two permanent guest foundations in 25 EU and non-EU countries. The Martens Centre takes part in the preparation of EPP programmes and policy documents. It organises seminars and training on EU policies and on the process of European integration.

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About the author



Adérito Vicente is a nuclear policy scholar with a Ph.D. in Political and Social Sciences from the European University Institute in Florence, Italy. Currently a Non-Resident Fellow at the Odesa Center for Nonproliferation and an external researcher at the Martens Centre, he has held academic positions at James Madison University, the James Martin Center for Nonproliferation Studies and the Robert Schuman Centre for Advanced Studies. Additionally, Dr Vicente has held other professional and diplomatic positions at the European Parliament, NATO, the European External Action Service and the Portuguese Ministry of Foreign Affairs. His scholarly contributions focus on European security and nuclear politics, including co-editing the Springer volume *Russia's War on Ukraine: Implications for the Global Nuclear Order* (2023).

Executive summary



Nuclear weapons remain the unquestioned core of European defence and security policy. Most European countries rely on NATO's nuclear umbrella for collective defence, primarily under US leadership, while a few, such as France, continue to address nuclear issues on a strictly national basis.

The current security landscape in Europe is characterised by growing complexity and uncertainty. Russian President Vladimir Putin's unprovoked invasion of Ukraine has highlighted Europe's security vulnerabilities and raised concerns about Moscow's nuclear sabre-rattling, especially in the Black Sea region. Furthermore, the emergence of revisionist powers, such as Russia and China, which are challenging the Western-led liberal world order, presents a new two-peer challenge for Euro-Atlantic security and NATO's extended nuclear deterrence. This, combined with the evolving dynamics of American foreign policy in the Indo-Pacific region and the potential re-election of the 'transactionalist' Donald Trump in November 2024, highlights the imperative for a critical reassessment of the role of nuclear weapons in Europe.

In this context, a rigorous political debate is essential to explore the potential need for a common European nuclear deterrent, while prioritising the preservation of both the Atlantic Alliance and the Non-Proliferation Treaty regime.

This research paper aims to critically evaluate the viability and necessity of implementing a shared nuclear deterrent for Europe, thereby enhancing the continent's autonomy in its collective security and defence policy decisions. Taking into consideration Europe's historical context and the current state of nuclear deterrence, the paper meticulously examines the prospects and challenges of establishing such a deterrent. It presents potential avenues and policy recommendations. Ultimately, the paper seeks to provide valuable insights that contribute to the academic and political discourse, and a compelling argument for EU policymakers to reconsider, discuss and potentially establish a European nuclear deterrent.

Keywords EU – Nuclear weapons – Deterrence – European defence – European security

Introduction and historical context



The idea of a European nuclear deterrent (END) has a long and complex history.¹ Following the devastation of the Second World War, the European integration movement gained momentum, aiming to unite nations across various domains. Among these initiatives, the European Defence Community (EDC) emerged as a key proposal, which aimed to foster defence integration and establish a European army.² In fact, the very first suggestion of an actual European nuclear force was conceived during a 1950–4 EDC project, which included a cooperative nuclear component.³

However, the EDC faced formidable challenges, including concerns over national sovereignty, apprehensions about German rearmament, and the diverging interests of the member states of the European Coal and Steel Community.⁴ The pivotal rejection of the EDC Treaty by the French National Assembly in 1954 marked a turning point, leading to the initiative's abandonment.⁵

In the aftermath of the EDC's failure, debates on European security were rekindled, with nuclear deterrence emerging as a focal point. Events such as the Suez Crisis (1956) and the launch of Sputnik (1957) exposed the vulnerabilities of US support and prompted discussions on whether Europe should pursue an independent nuclear deterrent or rely on established frameworks within NATO and the US.⁶

During the late 1950s, when only the US, the Soviet Union and the UK possessed nuclear weapons, France, Italy and Germany (FIG) embarked on a path of nuclear cooperation outside of NATO's command and control.⁷ Aiming to share resources and expertise to develop an END and establish a 'European strategic

¹ B. Tertrais, *The European Dimension of Nuclear Deterrence: French and British Policies and Future Scenarios*, Finnish Institute of International Affairs, Working Paper no. 106 (2018), 4; U. Jasper and C. Portela, 'EU Defence Integration and Nuclear Weapons: A Common Deterrent for Europe?', *Security Dialogue* 41/2 (2010); L. Nuti, 'The European Nuclear Dimension: From Cold War to Post-Cold War', in M. Segers and S. Van Hecke (eds.), *The Cambridge History of the European Union* (Cambridge: Cambridge University Press, 2023).

² E. Fursdon, *The European Defence Community: A History* (London: Palgrave Macmillan, 1980).

³ B. Heuser, *NATO, Britain, France and the FRG: Nuclear Strategies and Forces for Europe, 1949–2000* (Basingstoke: St Martin's Press, 1997), 148.

⁴ P. Goldschmidt, 'Proliferation and Non-Proliferation in Europe', in H. Müller (ed.), *A European Non-Proliferation Policy: Prospects and Problems* (Oxford: Clarendon Press, 1987).

⁵ R. Pastor-Castro, 'The Quai d'Orsay and the European Defence Community Crisis of 1954', *History* 91 (2006).

⁶ Heuser, *NATO, Britain, France and the FRG*; E. Kustnetsov, *The Multilateral Force Debates*, European University Institute (2004); N. Monteiro and A. Debs, *Nuclear Politics: The Strategic Causes of Nuclear Proliferation* (New York: Cambridge University Press, 2017).

⁷ The French began to take an interest in command-and-control arrangements when, in December 1954, the North Atlantic Council decided to authorise the use of tactical nuclear weapons in the event of aggression. See G.-H. Soutou, 'La politique nucléaire de Pierre Mendès France', *Relations Internationales* 59 (1989), 322; M. Duval and Y. Le Baut, *L'arme nucléaire française: Pourquoi et comment?* (Paris: Kronos, 1992).

entity', these nations signed the far-reaching, secret FIG Protocol, which explored the possibility of a joint nuclear force.⁸ However, this initiative was short-lived. With the election of Charles de Gaulle as French president in 1958, France opted to pursue an independent nuclear weapons programme, effectively halting the FIG proposal.⁹ De Gaulle's rationale for possessing nuclear weapons was his desire for greater national sovereignty and independence from American influence.¹⁰

Jean Monnet, a pioneering figure in European integration and head of the Action Committee for the United States of Europe, advocated against creating national nuclear forces. He firmly believed that 'European defence could only be ensured through the Atlantic Alliance', arguing in favour of collective defence under the US security umbrella.¹¹ Despite concerns about national sovereignty and because of the significant costs of independent nuclear programmes, most European nations ultimately chose to accept the security assurances provided by the US nuclear umbrella and its NATO nuclear sharing arrangements.¹² These legally binding obligations presented a cost-effective alternative to the development of independent arsenals, simultaneously alleviating the political and economic risks linked to nuclear weapons proliferation in Europe.

⁸ M. Trachtenberg, 'France and NATO, 1949–1991', *Journal of Transatlantic Studies* 9/3 (2011), 187; France, Ministry of Foreign Affairs, *Secret. Protocole entre les Ministres de la Défense Français, Allemand et Italien*, Historical Archives of the European Union, MAEF-4.13 (Florence, 25 November 1957).

⁹ Trachtenberg, 'France and NATO, 1949–1991'; L. Nuti, 'The F–I–G Story Revisited', in L. Nuti and C. Buffet (eds.), 'Dividing the Atom. Essays on the History of Nuclear Proliferation in Europe', Special Issue, *Journal Storia delle Relazioni Internazionali* 13/1 (1998).

¹⁰ A. M. Duval, 'Les décisions concernant l'armement nucléaire: pourquoi, comment, quand?', in M. Vaisse (ed.), *Armement et République* (Paris: CNRS Éditions, 2002).

¹¹ Action Committee for the United States of Europe, *Joint Declaration Adopted by the Committee at the Eleventh Session* (Bonn, 1 June 1964), 11–12.

¹² A 'Nuclear umbrella' is a security arrangement under which the participating states consent or acquiesce to the potential use of nuclear weapons in their defence. The related concept of 'extended nuclear deterrence' may be understood as the intended effect of a nuclear umbrella. A 'nuclear umbrella state' is a state without nuclear weapons that is under the protection of the nuclear weapons of another state. In the case of NATO, the US provides extended nuclear deterrence to all member states. 'Nuclear sharing', a component of NATO's policy of nuclear deterrence, permits member states lacking nuclear capabilities to engage in the planning for the deployment of nuclear weapons within the Alliance. This practice represents a particular facet within a broader array of nuclear-related activities, which can assume diverse forms: maintaining nuclear forces to ensure the security of non-nuclear nations, hosting another nation's nuclear weapons or delivery systems on a permanent basis, providing delivery systems capable of deploying another nation's nuclear arsenal, furnishing conventional capabilities to bolster another nation's nuclear strike capabilities, or participating in cooperative ventures with other nations pertaining to nuclear planning and target selection. By design, therefore, NATO's nuclear sharing is the sharing of the Alliance's nuclear deterrence mission and the related political responsibilities and decision-making.



The 1960s and 1970s witnessed the advent of the nuclear non-proliferation and disarmament regime and détente between the US and the former Soviet Union, climaxing with the signing of the Non-Proliferation Treaty (NPT) in 1968.¹³ However, to date, the three depositary states of the NPT—the US, the UK and Russia (successor state to the Soviet Union)—have not raised any public objections to Germany’s written declaration upon its accession to the NPT. This declaration acknowledged the possibility of a future END option.¹⁴

On 2 May 1975, in connection with its signing of the instrument of ratification, Germany set out the understanding on which it became a party to the NPT, reaffirming to some extent the objectives of the European nuclear clause: ‘[While understanding] that the security of the Federal Republic of Germany continues to be ensured by NATO, . . . [Germany] states that no provision of the Treaty may be interpreted in such a way as to hamper the further development of European unification, especially the creation of a European Union with appropriate competence.’¹⁵

Consequently, Germany, which had opted not to develop its own nuclear forces so as to allow it to sign the NPT, included the ‘European clause’ to keep open the possibility of an eventual independent European nuclear force.¹⁶ Despite numerous attempts to progress the idea over the decades, proposals for a collective END consistently encountered obstacles and have never come to fruition. During the Cold War, the responsibility for European defence predominantly rested with NATO and the Western European Union, leaving the prospect of an independent END unexplored.¹⁷

Following the conclusion of the Cold War in the early 1990s, France positioned itself as a leader in advocating for a renewed perspective on nuclear deterrence within the newly formed EU.¹⁸ Notably, the European People’s Party called for an EU army with a nuclear component already more than 30 years ago. While the 1992 Maastricht Treaty paved the way for the Common Foreign and Security Policy, it was not until

¹³ UN, *Treaty on the Non-Proliferation of Nuclear Weapons (NPT)* (New York, 1968).

¹⁴ UN, No. 10485. *Treaty on the Non-Proliferation of Nuclear Weapons, Opened for Signature at London, Moscow and Washington on 1 July 1968. Ratifications and Accession. 2 May 1975. Federal Republic of Germany*, UN Treaty Series 729/10485 (1976), 414–17.

¹⁵ *Ibid.*, 415.

¹⁶ A. Vicente, ‘The EU’s Foreign Policy in the Field of Nuclear Disarmament: How Does It Work and Why Does It Often Not Work?’, D.Phil. thesis, European University Institute, 2022, 65–79.

¹⁷ Heuser, *NATO, Britain, France and the FRG*.

¹⁸ C. Jurgensen, ‘L’Europe, la France et la dissuasion nucléaire’, *Revue Défense Nationale* 821/6 (2019).



the 2010 Lisbon Treaty that the Common Security and Defence Policy was officially established, triggering an internal discourse on forming an EU army.¹⁹

Although proposals for an EU army have been successful, the Common Security and Defence Policy aimed to enhance European military capabilities without envisaging the inclusion of the capacity for a collective nuclear defence. Consequently, NATO remained the primary instrument for European defence and nuclear deterrence throughout the post–Cold War period.

The 2010s ushered in a renewed focus on an END, propelled by two key events: the Russian annexation of Crimea in 2014 and the election of Donald Trump in 2016. These events served as catalysts, prompting European policymakers and academics to revisit the debate.²⁰ Notably, the focus has shifted to Germany, where revived interest in a ‘European option’ has surfaced, despite some advocating for a unilateral nuclear path.²¹

During a keynote speech in 2020, President Macron proposed opening a ‘strategic dialogue’ with European partners to explore the role of French nuclear weapons in collective European defence.²² He envisaged cooperation through joint exercises involving French deterrent forces, arguing that such military exchanges could foster a shared European strategic culture.²³ Christoph Heusgen, the former security policy adviser to Chancellor Merkel, suggested that Germany could engage in discussions with France to explore the possibility of joint contributions to nuclear deterrence.²⁴

Recent geopolitical developments, including Russia’s sabre-rattling during its war against Ukraine and the emergence of revisionist powers such as China challenging the Western-led liberal order, have renewed the interest in strengthening nuclear deterrence in the Euro-Atlantic context. There has also been growing

¹⁹ J. Howorth, *Security and Defence Policy in the European Union* (London: Bloomsbury Publishing, 2014).

²⁰ O. Thränert, ‘No Shortcut to a European Deterrent’, *Policy Perspectives* 5/2 (2017); B. Tertrais, ‘Will Europe Get Its Own Bomb?’, *The Washington Quarterly* 42/2 (2019); A. Vicente, ‘Euro-Nukes? A Difficult but Perhaps Necessary Debate’, *European Leadership Network*, 7 December 2018; T. Sauer, ‘Power and Nuclear Weapons: The Case of the European Union’, *Journal for Peace and Nuclear Disarmament* 3/1 (2020); K. Egeland and B. Pelopidas, ‘European Nuclear Weapons? Zombie Debates and Nuclear Realities’, *European Security* 30/2 (2021).

²¹ U. Kühn, T. Volpe and B. Thompson, ‘Tracking the German Nuclear Debate’, *Carnegie Endowment for International Peace* (2018).

²² E. Macron, ‘Speech of the President of the Republic on the Defense and Deterrence Strategy’, speech given in Paris on 7 February 2020.

²³ Ibid.

²⁴ R. Pfister, B. Sanberg and C. Schult, ‘A European Bomb’: Debate over Nuclear Deterrence Heats Up in the EU’, *Der Spiegel*, 14 April 2022.



apprehension in Europe over the reliability of the decades-old US commitment to European security.²⁵ The US's strategic pivot to the Indo-Pacific and the potential for an increasingly inward-looking America—due to either Trump's 'America First' agenda or the unclear Harris–Democratic Party agenda, which could produce a narrower view of US interests in Europe—have fuelled serious concerns among Europeans about the enduring US commitment to NATO's nuclear umbrella.²⁶ These factors have highlighted the vulnerabilities of Europe's current security architecture and reignited academic and political discussions on the need for Europe to establish its own nuclear deterrent.²⁷ As the debate surrounding an END re-emerges, this research paper examines the complexities surrounding this critical issue, with a focus on answering the fundamental question: *Why does Europe need a nuclear deterrent?* To address the core research question,

²⁵ J. Vela and N. Camut, 'As Trump Looms, Top EU Politician Calls for European Nuclear Deterrent', *Politico*, 25 January 2024; P. Wintour, 'UK Could Contribute to Nuclear Shield if Trump Wins, Suggests German Minister', *The Guardian*, 15 February 2024; and L. Kayali et al., 'Europe Has Avoided the Nuke Question For Decades. No Longer', *Politico*, 4 July 2024.

²⁶ F. Heisbourg, 'Planning for a Post-American Europe', *Survival* 66/3 (2024); *The White House*, 'Indo-Pacific Strategy of the United States' (February 2022); *US, Department of State*, 'The United States' Enduring Commitment to the Indo-Pacific: Marking Two Years Since the Release of the Administration's Indo-Pacific Strategy' (9 February 2024); P. Stephens, 'Europe Shouldn't Count on a Harris White House', *Financial Times*, 5 August 2024. While many European leaders, including Emmanuel Macron, believe that it is time for a Trump-proof Europe with its own strengthened security and that this opportunity should be taken to become less dependent on the US, there are still optimistic possibilities to consider despite concerns about both sides of the American political spectrum. From the Republican side, many are attempting to reassure European leaders and the public that the US will remain deeply engaged in Europe and NATO. They suggest that a Trump 2.0 presidency would be receptive to well-crafted European persuasion. A. Hauslohn, 'Republicans to NATO Leaders: Take Trump Seriously, Not Literally', *The Washington Post*, 11 July 2024. On the Democratic side, Harris's national security adviser, Phil Gordon, is noted for his extensive knowledge of Europe and his alignment with Europeanist perspectives; see L. Kayali and C. Caulcutt, 'Phil Gordon: Europe's "Ally" on Kamala Harris' Team', *Politico*, 2 August 2024. This suggests that her administration might continue to prioritise European interests.

²⁷ For a comprehensive exploration of the academic discourse, see A. Mattelaer, *Rethinking Nuclear Deterrence: A European Perspective*, Centre for Security, Diplomacy and Strategy, Policy Brief 13/2022 (13 May 2022); L. Horovitz and L. Wach, 'France's Nuclear Weapons and Europe: Options for a Better Coordinated Deterrence Policy', *Stiftung Wissenschaft und Politik* (9 March 2023); M. Terhalle and K. Klompenhouwer, 'Facing Europe's Nuclear Necessities', *Politico*, 22 April 2023; T. Erästö, *More Investment in Nuclear Deterrence Will Not Make Europe Safer*, Stockholm International Peace Research Institute (5 December 2023); J. Lanxade et al., 'Europe Needs a Nuclear Deterrent of Its Own', *New Atlanticist*, 11 July 2023; A. H. Tetzlaff and C. Baci, *European Perspectives on the Global Return of Nuclear Weapons*, Centre for Military Studies (2023); M. Rühle, *German Musings About a European Nuclear Deterrent*, National Institute for Public Policy, Report no. 571 (Fairfax, VA, 2024); W. Verstraete, 'Anticipating Europe's Nuclear Futures', *The Washington Quarterly* 47/1 (2024); S. Cimbala and L. Korb, 'Even in the Face of Russian Aggression, a Nuclear "Eurodeterrent" Is Still a Bad Idea', *Bulletin of the Atomic Scientists*, 14 February 2024; U. Kühn, 'Germany Debates Nuclear Weapons, Again. But Now It's Different', *Bulletin of the Atomic Scientists*, 15 March 2024; and W. Verstraete, 'Making Sense of European Disunity on Nuclear Weapon Questions', *European Foreign Affairs Review* 29/3 (2024). Additionally, insights from the European political debate can be found, for example, in J. Fischer, 'The Great Revision', *Project Syndicate*, 31 March 2023; J. Fischer, 'Ich schäme mich für unser Land', interview by F. Reinbold and G. Löwisch, *Die Zeit*, 3 December 2023; Pfister et al., '"A European Bomb"'; T. Huhtanen, 'The War in Ukraine Is Forcing Europe to Develop Its Own Nuclear Deterrence', *Euractiv.com*, 14 October 2022; Vela and Camut, 'As Trump Looms'; Wintour, 'UK Could Contribute to Nuclear Shield if Trump Wins'; N. Camut, 'Macron Wants to Open "Debate" on European Nuclear Deterrent', *Politico*, 28 April 2024; and Kayali et al., 'Europe Has Avoided the Nuke Question For Decades'.



this paper adopts a policy analysis approach, meticulously reviewing relevant academic publications, official documents and historical records to gain a comprehensive understanding of the field. Additionally, interviews with policymakers, defence specialists and scholars were conducted to provide invaluable insights into contemporary perspectives on the topic.

In order to provide a comprehensive analysis, this paper is divided into eight sections. The first section introduces the topic and examines the historical and political context in which the idea of a European deterrent has been discussed. The second section evaluates the current status of nuclear deterrence in Europe within the existing security environment. The third section outlines the rationale for establishing an END by examining why Europe needs its own nuclear deterrent and why it matters. The fourth section presents the current debate on an END, highlighting arguments for and against its establishment. The fifth section explores the nature of an END by presenting various potential options, including French-led initiatives and the concept of a 'Eurodeterrent'. The sixth section discusses the general requirements of building an END. Subsequently, the seventh section outlines policy recommendations. The final section summarises the debate and suggests reasons why EU policymakers should reconsider, discuss, promote and establish an END.

Current status of nuclear deterrence in Europe

At the core of Europe's collective defence and security architecture lies NATO's extended nuclear deterrence strategy, which is heavily reliant on the pivotal role of the US and its security guarantees to European allies. This strategy aims to deter potential aggressors by threatening retaliation with US nuclear weapons in the event of an attack on any NATO member, as set out in Article 5 of the Washington Treaty. The effectiveness of NATO's deterrence strategy hinges on the robust capabilities of US strategic nuclear forces. These comprise approximately 1,770 deployed warheads, including 400 land-based intercontinental ballistic missiles, 970 submarine-launched ballistic missiles and 300 ballistic missiles carried by strategic bombers (America's nuclear triad).²⁸

²⁸ H. Kristensen et al., 'United States Nuclear Weapons, 2024', *Bulletin of Atomic Scientists* 80/3 (2024), 182–3. In other words, this nuclear triad comprises land-based, sea-based and air-based systems.



On top of that, the deployment of US non-strategic nuclear weapons in Europe further strengthens NATO's nuclear deterrence.²⁹ Approximately 100 US B-61 nuclear bombs are strategically stationed in non-nuclear weapon states (NNWSs) including Belgium, Germany, Italy, the Netherlands, Türkiye and, to some extent, Greece, under NATO's nuclear sharing arrangements.³⁰ Greece has a contingency nuclear strike mission and accompanying reserve squadron, but it does not host any deployed nuclear weapons.³¹ Delivery of these weapons, which remain under US control, would involve the contribution of personnel and infrastructure from the participating states. These six 'nuclear sharing states' contribute 'dual-capable aircraft' (DCA) to NATO's nuclear mission, further enhancing the alliance's nuclear capabilities.³²

Alongside the DCA-contributing countries, six additional NATO members, including Czechia, Denmark, Hungary, Poland and two unnamed unknown countries, contribute to the alliance's nuclear posture through its Support of Nuclear Operations With Conventional Air Tactics (SNOWCAT) mission.³³ All members, except France, which has its own arsenal, participate in the Nuclear Planning Group (NPG). The NPG provides a forum for consultation, collective decision-making and political control over all aspects of NATO's nuclear mission, including nuclear sharing.³⁴

The US president has sole authority to authorise the use of US nuclear weapons.³⁵ This authority is inherent in his constitutional role as commander-in-chief.³⁶ The president can seek counsel from his military

²⁹ In military strategy, the distinction between strategic and non-strategic nuclear weapons is crucial for understanding their use and implications. On the one hand, non-strategic (or tactical) nuclear weapons are designed for battlefield use in regional conflicts, with shorter ranges of under 500 kilometres and lower explosive yields (of up to 100 kilotons). Their tactical purpose is to target enemy forces and infrastructure within a specific theatre of operations. These weapons can be dual-capable, delivering both conventional and nuclear payloads, complicating their deployment and signalling. On the other hand, strategic nuclear weapons are designed for long-range strikes, with yields typically starting at 100 kilotons and reaching into the low megaton range. Their delivery systems can exceed 5,000 kilometres in range, targeting key military, economic and political infrastructure deep within enemy territory. Their strategic purpose is to deter large-scale, especially nuclear, attacks by threatening devastating retaliatory strikes. These weapons are integral to a nation's long-term military planning and defence strategy. One of the major differences between these weapons is that non-strategic nuclear weapons do not possess the same deterrent and retaliatory power as strategic nuclear weapons.

³⁰ H. Kristensen et al., 'Nuclear Weapons Sharing, 2023', *Bulletin of the Atomic Scientists* 79/6 (2023), 395–6.

³¹ Kristensen et al., 'United States Nuclear Weapons'.

³² Kristensen et al., 'Nuclear Weapons Sharing', 395–6. As implied by its name, DCA serve two purposes. The first is to provide conventional air power capabilities, such as air policing and combat support, on a day-to-day basis. The second is to operationally deploy nuclear weapons in a conflict, following a political decision by the NPG. NATO, 'NATO's Nuclear Sharing Arrangements' (February 2022).

³³ Ibid.

³⁴ Ibid.

³⁵ A. Fink and P. Kerr, *Defense Primer: Command and Control of Nuclear Forces*, Congressional Research Service, F10521 (Washington, DC, 16 May 2024).

³⁶ Ibid.



advisers; those advisers are then required to transmit and implement the orders authorising nuclear use.³⁷ However, the authority to order the launch of nuclear weapons for any reason at any time lies solely with the president.³⁸

In addition to the US Nuclear Posture Review, the nuclear arsenal and the role it plays is shaped by planning and exercises that create the strike plans and practice how to carry them out.³⁹ The current strategic nuclear war plan—OPLAN 8010–12—consists of a ‘family’ of plans directed against four identified adversaries: Russia, China, North Korea and Iran.⁴⁰

The decision to use US NATO nuclear weapons would involve a complex process that requires multiple levels of authorisation and coordination. In short, if NATO was to conduct a nuclear mission in a conflict, B-61 weapons would be carried by certified Allied DCA aircraft and supported by conventional forces from across the Alliance. However, a NATO nuclear mission could only be undertaken after explicit political approval from the NPG and authorisation from the US president and the UK prime minister.⁴¹ Once political approval had been granted by the US and UK leaders, the NPG would provide strategic guidance to the Supreme Allied Commander Europe (SACEUR) and other NATO military commanders.⁴² SACEUR would then be responsible for executing the approved plans and making tactical decisions regarding the use of NATO’s nuclear weapons.⁴³

³⁷ Ibid.

³⁸ Ibid.; Kristensen et al., ‘United States Nuclear Weapons’, 198.

³⁹ A review of US nuclear policy, doctrine, force structure, command and control, operations, supporting infrastructure, safety, security, arms control and effectiveness determines what the role of nuclear weapons in US strategic security should be.

⁴⁰ H. Kristensen, ‘US Nuclear War Plan Updated Amidst Nuclear Policy Review’, *Federation of American Scientists*, 4 April 2013.

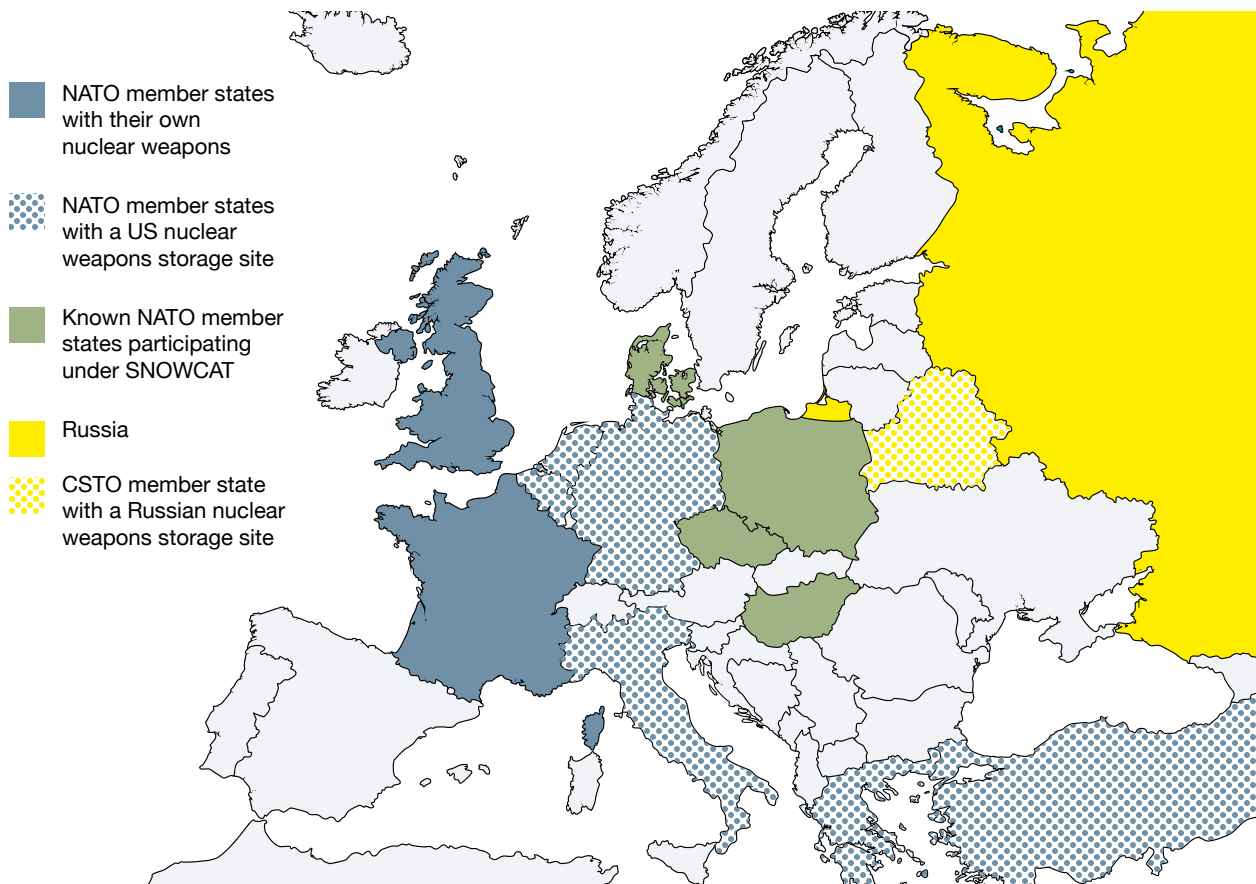
⁴¹ Although the US is the only provider of nuclear weapons for NATO’s nuclear sharing arrangements—stationing non-strategic weapons in Europe that remain under Washington’s custody and control, with their use requiring solely US presidential authorisation—a NATO nuclear mission may involve both US and UK nuclear assets, including strategic nuclear forces. This collaboration contributes to NATO’s overall defence and deterrence strategy, requiring authorisation from both the US president and the UK prime minister. In the specific case of the UK, London has committed its nuclear capability to the defence of NATO since 1962. Nuclear deterrence is a critical component of NATO’s overall strategy, with the UK’s deterrent playing a vital role in safeguarding European and Euro-Atlantic security. The UK’s nuclear deterrent is operationally independent, with only the prime minister authorised to approve the use of nuclear weapons, even if deployed as part of a NATO response. *UK Government*, ‘UK Guidance: The UK’s Nuclear Deterrent: What You Need to Know’ (28 March 2024).

⁴² UN, *Supreme Headquarters Allied Powers Europe*, ‘Why SACEUR Has Always Been An American Officer?’

⁴³ W. Alberque, *The NPT and the Origins of NATO’s Nuclear Sharing Arrangements*, IFRI Proliferation Papers 57 (February 2017).



Figure 1 Nuclear weapons in Europe



Source: Author's own map, created using Mapchart.net, using data from H. Kristensen et al., 'Nuclear Weapons Sharing, 2023'; H. Kristensen et al., 'United States Nuclear Weapons, 2024'; and *Associated Press*, 'Belarus Leader Says Russian Nuclear Weapons Shipments Are Completed, *Raising Concern in the Region*'.



Russia, a major Eurasian power, poses a significant nuclear threat to Europe due to its vast arsenal of nuclear weapons. Russia's strategic location and historical tensions with Western nations have contributed to concerns about the potential use of these weapons in a regional or global conflict. Moscow currently possesses 1,710 deployed strategic nuclear warheads (intercontinental and submarine-launched ballistic missiles, as well as nuclear-capable bombers) and an estimated 1,558 non-strategic ones.⁴⁴

According to Article 87.1 of the Russian constitution, the president holds the highest military authority as the supreme commander-in-chief.⁴⁵ The current nuclear doctrine dictates that only the president can authorise nuclear weapons use.⁴⁶ This authority is facilitated through a special briefcase known as the 'Cheget', which enables the president to monitor crises and issue nuclear commands via the Kazbek command network and Kavkaz communications system.⁴⁷

It is widely believed that both the defence minister and the chief of the general staff also possess Cheget briefcases, although the president retains sole launch authority. Given the secrecy surrounding Russian nuclear launch procedures, the purpose of these additional briefcases remains unclear.⁴⁸ One possibility is that they serve as a form of validation or check against the president's nuclear launch decision.⁴⁹ However, as neither the defence minister nor the chief of the general staff are constitutionally or doctrinally designated as nuclear decision-makers, it seems more likely that their briefcases function as links in the chain of command, used to transmit the president's orders.

Moreover, as US–Russia relations have steadily deteriorated in recent years, both sides have abandoned decades-old arms control treaties. Washington and Moscow now have only one remaining nuclear arms control treaty, the New START treaty, which the Kremlin unilaterally suspended on 21 February 2023.⁵⁰ The treaty caps the number of deployed warheads, missiles, bombers and strategic nuclear missile launchers that

⁴⁴ H. Kristensen et al., 'Russian Nuclear Weapons, 2024', *Bulletin of the Atomic Scientists* 80/2 (2024), 118–19. However, according to the Pentagon, the actual number is higher. It estimates that Russia possesses 2,000 non-strategic nuclear weapons that the treaty does not cover. *US, Senate Committee on Armed Services*, 'Statement of Anthony J. Cotton, Commander United States Strategic Command' (29 February 2024).

⁴⁵ *Russia*, 'The Constitution of the Russia Federation, Chapter 4. The President of the Russian Federation' (12 December 1993).

⁴⁶ *Russia, Ministry of Foreign Affairs*, 'Basic Principles of State Policy of the Russian Federation on Nuclear Deterrence', Executive Order of the President of the Russian Federation (8 June 2020).

⁴⁷ G. Faulconbridge, 'How Many Nuclear Weapons Does Russia Have and Who Controls Them?', *Reuters*, 13 March 2024.

⁴⁸ *Ibid.*

⁴⁹ This is implied in Valery E. Yarynich's argument, in which he states that these three individuals 'together prepare the authorization for the use of nuclear weapons' (V. Yarynich, *C3: Nuclear Command, Control, Cooperation*, Center for Defense Information (Washington, DC, 2003), 153).

⁵⁰ H. Williams, 'Russia Suspends New START and Increases Nuclear Risks', *Center for Strategic and International Studies* (23 February 2023).



both sides can possess.⁵¹ However, it does not apply to the new weapons that Russia has been developing in recent years.

Since the Intermediate-Range Nuclear Forces Treaty ended in 2019, Moscow has upgraded its non-strategic arsenal, solidifying its perceived nuclear superiority over Europe.⁵² For example, Russia has developed a hypersonic glide missile with a 2,000 km range, challenging existing European defences.⁵³ The recent deployment of tactical nuclear weapons to Belarus also represents a novel development in the post–Cold War European nuclear order.⁵⁴

The decision by Belarus to renounce its non-nuclear weapon status has significant implications for European security. This is particularly true in the context of Russia’s war against Ukraine, and has been met with opposition from the EU and NATO amid concerns about the potential for nuclear escalation.⁵⁵ This move has opened the door for Russia to station additional nuclear weapons along NATO’s borders, which would significantly compound the vulnerability of the Alliance’s eastern flank, as Russia’s nuclear missiles stationed in the Kaliningrad region already put Poland and the Baltic states within range.

The deployment of Russian nuclear weapons in Belarus, specifically dual-capable Iskander-M missile systems, and the modification of Belarusian Su-25 aircraft to deliver such weapons, represents a significant escalation in regional tensions and poses a direct threat to European security.⁵⁶ As a result, this move has effectively drawn Belarus further under Russian control, tightening the political and military alliance as well as the interdependent nuclear relationship between the two nations.

The precise number of nuclear weapons stationed in European Russia remains classified and has not

⁵¹ US, *Department of State*, ‘New START Treaty’ (1 June 2023).

⁵² Ibid.

⁵³ K. Saylor, *Hypersonic Weapons: Background and Issues for Congress*, Congressional Research Service, R45811 (Washington, DC, 2024).

⁵⁴ *Associated Press*, ‘Belarus Leader Says Russian Nuclear Weapons Shipments Are Completed’, 26 December 2023; *Radio Free Europe/Radio Liberty*, ‘Lukashenka Says Dozens of Russian Nukes Deployed in Belarus’, 25 April 2024; S. Starcevic, ‘Belarus and Russia to Conduct Joint Nuclear Drills’, *Politico*, 10 June 2024.

⁵⁵ *European External Action Service*, ‘Belarus: Statement by the High Representative on the Announced Transfer of Russian Nuclear Warheads to Belarus’ (26 May 2023); NATO, ‘Vilnius Summit Communiqué’ (Vilnius, 11 July 2023); NATO, ‘Washington Summit Declaration’ (Washington, DC, 10 July 2024).

⁵⁶ J. Detsch and R. Gramer, ‘Russia’s Nuclear Weapons Are Now in Belarus’, *Foreign Policy*, 14 March 2024; *Reuters*, ‘Belarus Conducts Tactical Nuclear Inspection Together With Russia’, 7 May 2024.



been publicly disclosed by the Russian authorities.⁵⁷ However, it is plausible that Moscow has deployed hundreds of diverse nuclear-capable weapons in the region due to the presence of key military installations, strategic command centres and missile defence systems.⁵⁸ It is known that there are 9K720 Iskander (SS-26) ballistic missiles stationed in Kaliningrad.⁵⁹ The Iskander missiles have a range of over 300 miles and are capable of carrying nuclear warheads.⁶⁰ Russia has also deployed various nuclear-capable weapons to occupied Crimea since annexing the peninsula from Ukraine in 2014.⁶¹ These include ships and submarines of the Russian Black Sea Fleet, which are capable of carrying nuclear cruise missiles and torpedoes.⁶² In 2015 Putin approved the positioning of two dual-capable systems in Crimea: the 9K720 Iskander ballistic missile and the Backfire bomber.⁶³

⁵⁷ European Russia, the western region of the Russian Federation, is characterised by high population density. This area is home to significant urban centres, including Moscow and St Petersburg, which are crucial to the country's economic and strategic interests. In contrast, the eastern portion of Russia, although significantly larger in size, is sparsely populated and extends into Asia. The Ural Mountains serve as a natural demarcation, dividing Russia into European and Asian sectors and traversing the Eurasian landmass. European Russia, which includes the Kaliningrad enclave, dominates much of Eastern Europe and shares borders with numerous NATO countries, including Norway, Finland, Estonia, Latvia, Lithuania and Poland, as well as the former Soviet states of Belarus, Ukraine, Georgia, Azerbaijan and Kazakhstan. Consequently, this geographical positioning grants Russia a strategic advantage in deterring and potentially launching attacks on Eastern Europe. However, this advantageous position also exposes Russia to a higher degree of risk. In particular, it would make Russia more susceptible to counterforce (targeting enemy military capabilities) and countervalue (targeting population centres) strategies during a nuclear exchange. This heightened vulnerability raises the potential for significant radioactive fallout and civilian casualties.

⁵⁸ These facilities play a pivotal role in coordinating military operations and bolstering Russian national security. C. Pursiainen, 'Russia's Critical Infrastructure Policy: What Do We Know About it?', *European Journal for Security Research* 6 (2021).

⁵⁹ *Center for Strategic and International Studies*, '9K720 Iskander (SS-26), CSIS Missile Threat' (23 April 2024).

⁶⁰ *Ibid.*

⁶¹ H. Kristensen, 'Rumors About Nuclear Weapons in Crimea', *Federation of American Scientists*, 18 December 2014.

⁶² *Ibid.*

⁶³ Y. Kazdobina, 'Is There an Alternative to Liberating Crimea From the Russian Occupation?', *Ukrainian Prism*, 27 October 2013. The deployment of these dual-capable systems underscores the strategic ambiguity and potential for misinterpretation associated with non-strategic nuclear forces. Although these systems can serve conventional military roles, their nuclear capability may heighten tensions and create uncertainty among neighbouring countries, as they could be perceived as a nuclear threat even if that is not the intent. See footnote 30 for additional details on non-strategic nuclear weapons.



Table 1 Nuclear weapons stationed in Europe

Country	Estimated number of European nuclear weapons ⁶⁴
France	290
UK	225
Subtotal	515

Country	Estimated number of US nuclear weapons ⁶⁵
Belgium (Kleine Brogel)	20
Germany (Büchel)	20
Greece	In a reserve and contingency role
Italy (Aviano, Ghedi)	20
The Netherlands (Volkel)	20
Türkiye (Incirlik)	20 to 30
Subtotal	>100

Country/region	Estimated number of Russian nuclear weapons ⁶⁶
Belarus	Several dozen
European Russia	Exact number not specified ⁶⁷
Occupied Crimea	Uncertain
Subtotal	>1000
Total	~ 750–thousands ⁶⁸

⁶⁴ The arsenals of France and Britain primarily consist of strategic nuclear weapons.

⁶⁵ These are solely comprised of US tactical nuclear weapons. It is unclear how many of its 1,770 strategic nuclear weapons are deployed in Europe. However, it is certain that the US allocates a significant portion of its strategic weapons to its European theatre nuclear strategy, primarily to deter aggression from adversaries, but also to strengthen NATO's deterrent and defensive capabilities in Europe.

⁶⁶ These primarily consist of Russian non-strategic nuclear weapons.

⁶⁷ Russia possesses dozens of nuclear-capable Iskander (SS-26) ballistic missiles stationed in Kaliningrad. Additionally, a substantial portion of its 1,558 non-strategic warheads and 1,710 deployed strategic warheads are believed to be deployed within the European Russia region.

⁶⁸ It is reasonable to assume that Russia, for obvious geographical reasons, may have thousands of deployed nuclear weapons in Europe. Conversely, given the sizeable force, long-range capabilities and mobility of the US nuclear triad, there is no need for these weapons to be stationed in Europe to effectively deter potential threats from Russia or other nuclear adversaries.



Source: Author's own compilation using data from H. Kristensen, M. Korda and E. Johns, 'French Nuclear Weapons, 2023'; H. Kristensen and M. Korda, 'United Kingdom Nuclear Weapons, 2021'; H. Kristensen et al., 'Nuclear Weapons Sharing, 2023'; H. Kristensen et al., 'United States Nuclear Weapons, 2024'; H. Kristensen et al., 'Russian Nuclear Weapons, 2024'; US, *Senate Committee on Armed Services*, 'Statement of Anthony J. Cotton'; *Radio Free Europe/Radio Liberty*, 'Lukashenka Says Dozens of Russian Nukes Deployed in Belarus'; and H. Kristensen et al., 'Status of World Nuclear Forces'.

European states' different positions and singularities

Notwithstanding a joint NATO strategy on nuclear deterrence, diverse perspectives and singularities persist among European states.⁶⁹ Several groupings can be identified. The first comprises the UK and France, with each maintaining independent nuclear arsenals as recognised nuclear weapon states (NWSs) under the NPT; their non-shared combined forces contribute indirectly to the overall security of the Alliance. Following Brexit, France is the sole EU member with NWS status; neither the UK nor France shares its weapons with allies. The second grouping encompasses most European NNWSs, which rely on the US/NATO nuclear umbrella. Conversely, some EU member states, such as Austria, Ireland and Malta, which are all NNWS parties to the Treaty on the Prohibition of Nuclear Weapons (TPNW), reject nuclear weapons and NATO's deterrence approach. They form the third group. Finally, the case of Cyprus presents a unique and complex situation. Although not fully recognised by NATO due to Türkiye's objections concerning the unresolved reunification issue, Cyprus has signed but not ratified the above Treaty, leaving its security position potentially vulnerable within the EU bloc.

Separately, Ukraine, Georgia, and Bosnia and Herzegovina are non-EU member states that aspire to join NATO. Ukraine applied for membership in September 2022 after Russia's full-scale invasion in February of the same year, and NATO allies reaffirmed their commitment to Ukraine's membership at the 2023 Vilnius Summit.⁷⁰ As part of this commitment, the NATO–Ukraine Council was launched.⁷¹ In July 2024 NATO leaders announced in their Washington Summit Declaration that Ukraine is on an 'irreversible' path to NATO membership.⁷² Currently, Ukraine is working on meeting NATO membership criteria, including by un-

⁶⁹ E. Maitre, 'Nuclear Deterrence in Europe: Points of Convergence, Singularities and Prospects for Cooperation', *Fondation pour la recherche stratégique* 04/2021 (2021).

⁷⁰ *Kyiv Post*, 'Zelensky Requested Accelerated Membership to NATO', 30 September 2022; NATO, 'Vilnius Summit Communiqué'.

⁷¹ NATO, 'NATO–Ukraine Council' (13 May 2024).

⁷² NATO, 'Washington Summit Declaration'.



dertaking judicial and media reforms, as well as making efforts to combat corruption.⁷³ As far as Georgia is concerned, the former Soviet republic sought NATO membership on gaining independence in 1991 and has accelerated its efforts since the 2003 Rose Revolution.⁷⁴ NATO allies agreed at the 2008 Bucharest Summit that Georgia would become a member once it meets all the necessary requirements.⁷⁵ Despite Russian opposition, Georgia has participated in NATO programmes and contributed to missions, demonstrating its commitment to integration.⁷⁶ Bosnia and Herzegovina joined the Membership Action Plan in 2010, which is a crucial step towards the country's eventual membership of NATO.⁷⁷ However, the urgency of ensuring regional security in the light of Russia's war on Ukraine highlights the need for a potentially expedited accession process for Bosnia and Herzegovina.⁷⁸

The final group of European countries are members of the Collective Security Treaty Organization (CSTO), a military alliance comprising six former Soviet states: Russia, Belarus, Armenia, Kazakhstan, Kyrgyzstan and Tajikistan.⁷⁹ Unlike NATO, which has 32 diverse member states with a broad geographic scope, the CSTO primarily focuses on the security of its six member states within the former Soviet space. This collective security is maintained through deterrence, with Russia's nuclear umbrella providing an essential security guarantee.⁸⁰ A key component of the CSTO's collective defence strategy is the concept of extended deterrence. Mirroring Article 5 of the NATO Treaty, Article 4 of the CSTO Treaty reflects the organisation's commitment to collective defence, which stipulates that an aggression against one member state is considered an aggression against all.⁸¹ Despite this similarity, NATO has a broader range of military capabilities, including a superior conventional deterrent force, and may rely less on the US than the CSTO does on Russia.

⁷³ Y. Cherniev, *Ukraine: Progress in Reforms on the Way to NATO Membership*, NATO Parliamentary Assembly, Preliminary Draft Report 091 UNIC 24 (24 April 2024).

⁷⁴ NATO, 'Relations With Georgia' (7 March 2024).

⁷⁵ NATO, 'Bucharest Summit Declaration' (Bucharest, 3 April 2008).

⁷⁶ NATO, 'Relations With Georgia'.

⁷⁷ NATO, 'Relations With Bosnia and Herzegovina' (30 January 2024); NATO, 'Membership Action Plan' (28 March 2024).

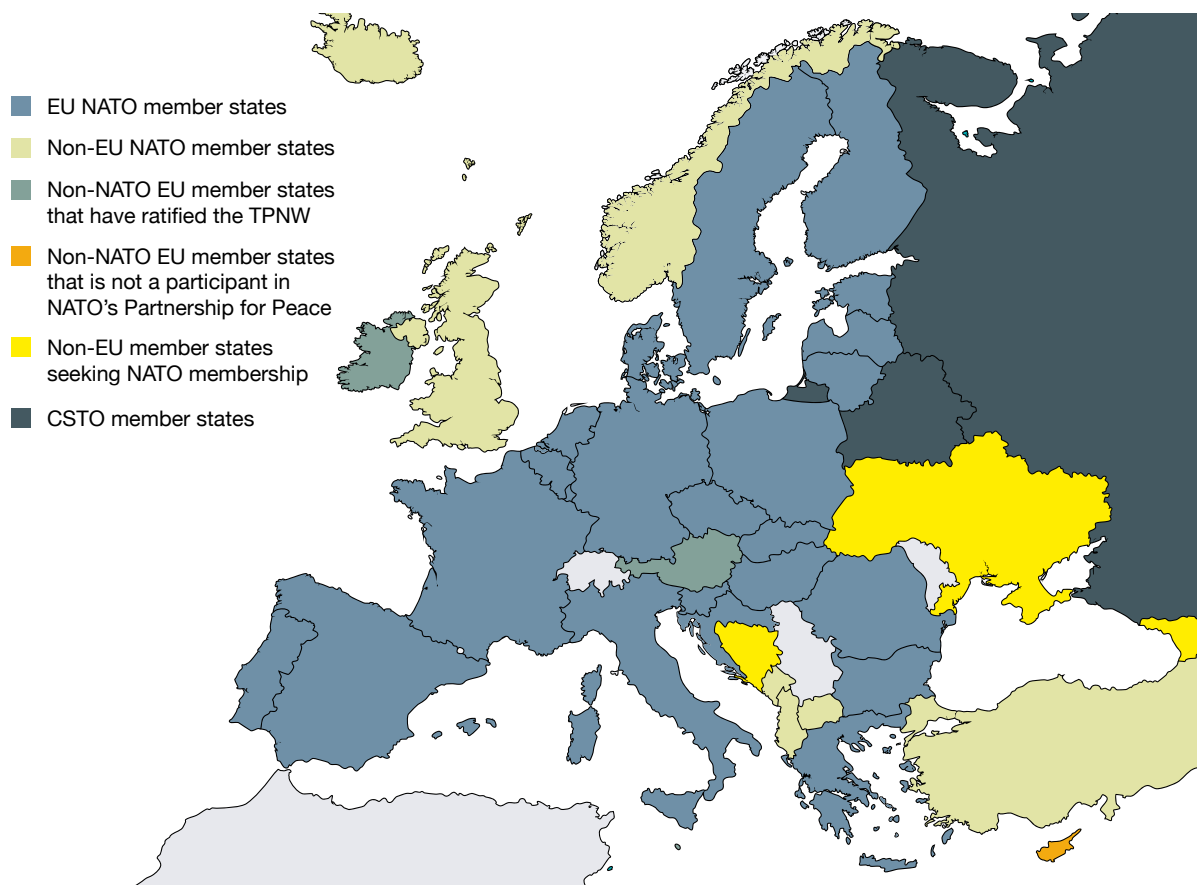
⁷⁸ H. Karcic, 'NATO Needs to Welcome Bosnia Before It's Too Late', *Foreign Policy*, 27 February 2023.

⁷⁹ As shown in Figure 2, the first four countries are located in Europe, while the latter two are exclusively Asian states.

⁸⁰ Collective Security Treaty Organization, *Collective Security Treaty* (15 May 1992, updated on 23 April 2012).

⁸¹ *Ibid.*

Figure 2 States' positions and singularities



Source: Author's own map, created using Mapchart.net.



Disparities in Alliance funding: national contributions to NATO

Secretary General Jens Stoltenberg recently presented estimates indicating that 18 out of the 31 NATO countries will exceed the required 2% of GDP spending on defence in 2024.⁸² This disclosure follows criticisms from US presidential candidate Donald Trump, who has accused the other member states in the alliance of under-investing.⁸³

Notwithstanding this improved investment level, of the total NATO budget of \$1.4 trillion in 2024, the US contributed the most, at \$967.7 billion (65.63%).⁸⁴ The EU member states in NATO, excluding Sweden, collectively contributed \$359.7 billion (24.39%).⁸⁵ The UK stands as the second-largest individual contributor at \$82.1 billion (5.57%).⁸⁶ Canada contributes \$30.5 billion (2.07%), holding the position as the second-largest individual contributor outside of European NATO.⁸⁷ Other non-EU NATO members (including Türkiye, Norway, Albania, North Macedonia and Montenegro) collectively contributed \$34.4 billion (2.33%).⁸⁸ Combining the contributions of all NATO members in Europe with that of Canada results in a total investment of \$506.7 billion (34.37%). This represents roughly one-third of NATO's total budget and approximately half of the US contribution. This imbalance highlights the need for greater burden-sharing among European NATO members, particularly in the light of the organisation's evolving security challenges and the importance of collective defence in Europe.

⁸² NATO, 'Pre-Ministerial Press Conference by NATO Secretary General Jens Stoltenberg Ahead of the Meetings of NATO Ministers of Defence in Brussels' (14 February 2024); NATO, 'Secretary General Welcomes Unprecedented Rise in NATO Defence Spending' (14 February 2024).

⁸³ S. Siebold and J. Irish, 'NATO Chief Says Europe Meeting Spending Targets After Trump Comments', *Reuters*, 14 February 2024; A. Gray and S. Siebold, 'What Did Trump Say About NATO Funding and What Is Article 5?', *Reuters*, 14 February 2024.

⁸⁴ NATO, 'Defence Expenditure of NATO Countries (2014–2024)' (17 June 2024), 8.

⁸⁵ *Ibid.*

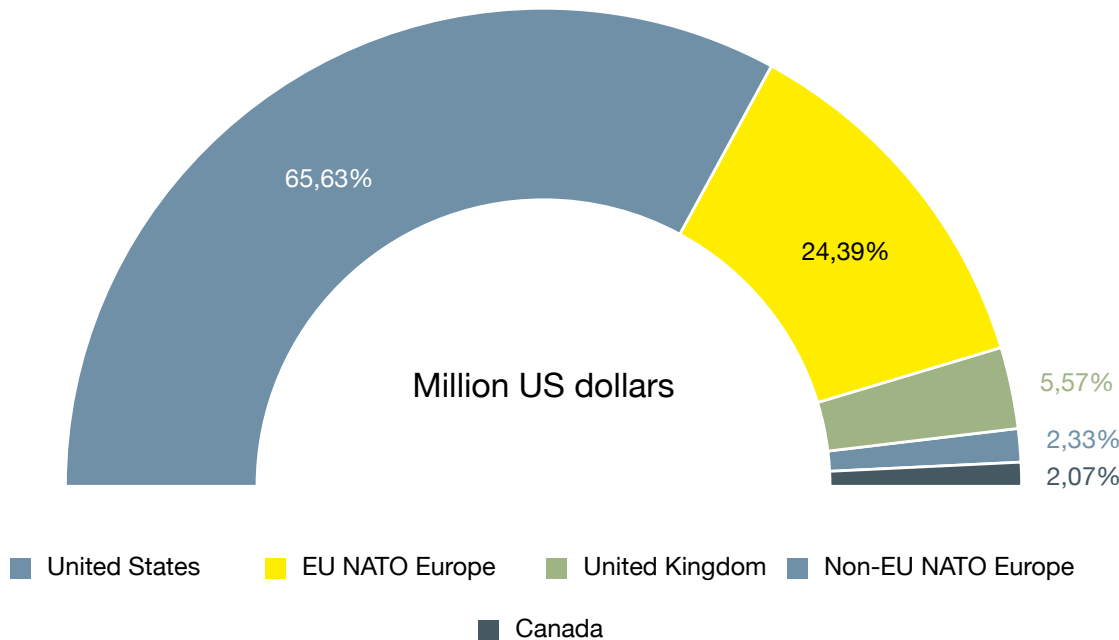
⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ *Ibid.*



Figure 3 NATO defence expenditure 2024⁸⁹



Source: Data from NATO, 'Defence Expenditure of NATO Countries (2014–2024)'.

⁸⁹ NATO defines defence expenditure as payments made by a national government specifically to meet the needs of its armed forces, those of Allies or of the Alliance. A major component of defence expenditure is payment of the armed forces, financed from within the ministry of defence budget. Armed forces include land, maritime and air forces, as well as joint formations such as administration and command, special operations forces, medical services, logistics command, space command, cyber command and so on. They might also include 'other forces' such as ministry of interior troops, national police forces, gendarmeries, *carabinieri*, coastguards and so on. NATO, 'Defence Expenditure', 15.



Why does Europe need its own nuclear deterrent? Why does it matter?

Unlike during the Cold War, today's nuclear threat environment is increasingly multipolar and has undergone a profound transformation in recent years, posing unprecedented challenges and threats to Europe's stability and security.⁹⁰

Given the current status of nuclear deterrence in Europe and the political context, renewed interest has emerged in the possibility of establishing an END. This interest can be attributed to four key factors.

First, uncertainty regarding the future level of US commitment to NATO has raised questions about the continued reliability of the US nuclear umbrella. This has been prompted by apprehensions about the potential re-election of the transactionalist Donald Trump in November 2024.⁹¹

⁹⁰ S. Miller, 'A Nuclear World Transformed: The Rise of Multilateral Disorder', *Daedalus* 14/2 (2020).

⁹¹ Donald Trump can be described as a protectionist, a nationalist and, above all, a transactional leader. This distinction is not merely academic. First, whether Trump is considered an isolationist depends on the definition of the term. If 'isolationism' refers to scepticism regarding US foreign policy over the past eight decades and doubts about the benefits of global leadership for the US, then Trump qualifies as an isolationist. However, if 'isolationism' is seen as a call for geopolitical detachment, it becomes a more complex label (J. Lindsay, 'Election 2024: Is Donald Trump an Isolationist?', *Council on Foreign Relations*, 26 April 2024). As Charles Kupchan articulates in his comprehensive book, *Isolationism: A History of America's Efforts to Shield Itself from the World* (New York: Oxford University Press, 2020, 6), isolationism is 'a grand strategy aimed at disengagement with foreign power and the avoidance of enduring strategic commitments beyond the North America homeland'. Second, Trump's foreign policy is also heavily influenced by nationalist sentiments, as encapsulated in his 'America First' agenda. This ideology emphasises prioritising American interests over international cooperation, often at the expense of established alliances and multilateral agreements. Trump's rhetoric and policies reflect a belief that international commitments can conflict with national interests, leading to a more unilateral approach to foreign relations (see H. Brands, 'An "America First" World: What Trump's Return Might Mean for Global Order', *Foreign Affairs*, 27 May 2024). This agenda departs from the prevailing and traditional approach of foreign policy elites, which prioritises the preservation of multinational processes over the unilateral approach to the protection of American interests. However, America First does not mean America alone, nor does it mean a return to isolationism per se (see *America First Policy Institute*, 'Establish an America First Foreign Policy. Pillar VI: Deliver Peace Through Strength and American Leadership'). Third, Trump's transactional approach is characterised by scepticism of traditional alliances, such as NATO. He frequently criticises allies for not contributing sufficiently to their own defence, suggesting that the US should engage militarily only when it aligns with its direct interests. This perspective reflects a broader trend of questioning the value of multilateral institutions, which he perceives as often detrimental to American sovereignty and interests. In my view, Trump is best described as a transactional leader. This characterisation suggests that a potential return to the White House does not necessarily imply an inevitable US retreat from global engagement. His decisions will largely depend on whether America's friends and allies fulfil their commitments and create opportunities for him to showcase his negotiating skills. While US leadership may be less pronounced under a second Trump presidency, the American presence abroad could persist (see Lindsay, 'Election 2024'). In summary, Donald Trump's foreign policy can be accurately described as 'transactional nationalism', characterised by a focus on immediate national interests, scepticism of multilateralism and a willingness to engage in unilateral actions.



Trump's criticism of European allies for perceived inadequate financial contributions to NATO during his first term has already led to apprehensions about the efficacy of America's nuclear umbrella for deterring war in Europe.⁹² The Trump presidency served as a stark reminder of the need for Europe to develop a 'Plan B' for its collective security and defence. While a potential Kamala Harris victory would eliminate most of these concerns, the reality is that Europe cannot indefinitely rely solely on the US for its security. This is due both to America's strategic pivot towards great-power competition with China and potential flashpoints in the Middle East and Asia, which may draw US military efforts towards these regions.⁹³

There is therefore an urgent need for European self-reliance and a new strategy to ensure Europe's security in the evolving geopolitical landscape, moving beyond Cold War assumptions about American boots on the ground to embrace a more comprehensive approach to defence investments.⁹⁴

Second, recent events, such as the war in Ukraine and nuclear signalling by Russian President Vladimir Putin, have fuelled anxieties about Moscow's willingness to use nuclear weapons.⁹⁵ This, coupled with Moscow's open deployment of nuclear weapons in Belarus near the Ukrainian border, has significantly increased the threat of Russian nuclear coercion.⁹⁶ Nuclear peril, once a distant concern in Europe, has become starkly real and present for both European political elites and the public, as illustrated by Russia's nuclear threats during the war in Ukraine.⁹⁷

Third, there are concerns about the asymmetric advantage of Russia's large stock of tactical nuclear weapons in contrast to NATO's limited deployment of nuclear assets on European territory.⁹⁸ This imbalance raises questions about the effectiveness of the US nuclear umbrella in Europe's deterrence strategy.

⁹² A. Richter, 'NATO in the Age of Trump: Alliance Defense Spending During the Trump Presidency', *Comparative Strategy* 40/3 (2021); Vela and Camut, 'As Trump Looms'; E. Joyner, 'Trump Prompts EU to Consider Nuclear Deterrence Without US', *Deutsche Welle*, 15 February 2024.

⁹³ A. Laya et al., 'Trump-Proofing Europe', *Foreign Affairs*, 2 February 2024.

⁹⁴ Ibid.; H. Kristensen et al., 'Chinese Nuclear Weapons, 2024', *Bulletin of the Atomic Scientists* 80/1 (2024).

⁹⁵ For example, in the first 10 weeks of the military campaign, Moscow issued around 20 nuclear signals. L. Horowitz, and M. Stolze, *Nuclear Rhetoric and Escalation Management in Russia's War Against Ukraine: A Chronology*, Stiftung Wissenschaft und Politik (Berlin, August 2023).

⁹⁶ N. Sokov, 'Why Russia Calls a Limited Nuclear Strike "De-Escalation"', *Bulletin of the Atomic Scientists*, 13 March 2014; D. Adamsky, *The Russian Way of Deterrence: Strategic Culture, Coercion, and War* (Stanford, CA: Stanford University Press, 2024), 106–10.

⁹⁷ H. Williams et al., 'Russian Nuclear Calibration in the War in Ukraine', *Center for Strategic and International Studies* (23 February 2023); *Project on Nuclear Issues*, 'Nuclear Signaling During the War in Ukraine', Center for Strategic and International Studies (2024).

⁹⁸ Cimbala and Korb, 'Even in the Face of Russian Aggression'; J. Bolton, 'Both Parties Can Agree on America's Nuclear Peril', *Wall Street Journal*, 25 October 2023.



Fourth, China's rapid nuclear expansion, propelling it into position as the world's third nuclear superpower, likewise raises fears about the strain placed on the US extended nuclear deterrence strategy for Europe, which is now tasked with deterring both China and Russia simultaneously: this is known as the two-peer problem.⁹⁹ Consequently, the US nuclear arsenal, historically crucial to European security, must now deter two nuclear-capable peer competitors, placing a strain on its European commitments.¹⁰⁰

In this context, the question of whether Europe needs its own nuclear deterrent has gained renewed prominence. An END could bolster European security and regional stability by supplementing NATO and diversifying deterrence options, reducing reliance on the US. This potential deterrent capability could foster a more balanced 'partnership of equals' in which Europe actively contributes to its security.¹⁰¹ Furthermore, a European deterrent could grant Europe greater control over security policy, allowing it to make independent decisions aligned with its interests, while also enhancing its bargaining power in international negotiations. Additionally, the European clause, uncontested by the three NPT depositary states (the US, the UK and Russia), provides a legal framework for an END that remains within the non-proliferation and disarmament regime. Nonetheless, adopting it would not be without its challenges.

⁹⁹ Kristensen et al., 'Chinese Nuclear Weapons'; Mattelaer, *Rethinking Nuclear Deterrence*; Terhalle and Klompenhouwer, 'Europe's Nuclear Necessities'. The emerging two-peer problem is the challenge of simultaneously deterring and potentially defending against two NWSs: China and Russia. This challenge compels significant adaptations to both the hardware (physical components such as nuclear warheads and delivery platforms) and software (planning and consultation between the protector and its protégés) of extended nuclear deterrence. See *Center for Global Security Research Study Group*, 'China's Emergence as a Second Nuclear Peer: Implications for U.S. Nuclear Deterrence Strategy', Lawrence Livermore National Laboratory (Spring 2023), 8.

¹⁰⁰ Kristensen et al., 'Chinese Nuclear Weapons'; Mattelaer, *Rethinking Nuclear Deterrence*.

¹⁰¹ Action Committee for the United States of Europe, *Joint Declaration*.



Unfolding the debate: arguments for and against an END¹⁰²

Given this new political and security environment, renewed debate has emerged about the possibility of an END. Policymakers and European security experts are currently engaged in serious discussions regarding the potential need for an END.¹⁰³ While there are several political and military arguments supporting a nuclear deterrent, there are concerns about its credibility and feasibility, as well as reasons for scepticism, including the political and organisational challenges, such as how to establish the chain of command for such a multinational nuclear force.¹⁰⁴ Thus, examining the diverse range of arguments for and against an END is crucial for navigating the intricate path towards a balanced and well-informed decision on this consequential issue for European collective security and defence.

Arguments against an END

Before enumerating the eight main arguments for implementing an END, it is therefore important to succinctly analyse the rationale against creating a Eurodeterrent or 'Eurobomb'.

One of the primary arguments for not creating an END is that the EU faces significant obstacles to forming a cohesive policy on nuclear deterrence due to a lack of consensus among its 27 member states. At least four factors contribute to this lack of unity and political will. The first factor concerns the enduring emo-

¹⁰² D. Bandow, 'Time for a European Nuclear Deterrent?', *The National Interest*, 13 January 2017; Jasper and Portela, 'EU Defence Integration and Nuclear Weapons'; Vicente, "'Euro-Nukes?"; Terhalle and Klompenhouwer, 'Europe's Nuclear Necessities'; Lanxade et al., 'Europe Needs a Nuclear Deterrent of Its Own'.

¹⁰³ For example, former German Foreign Minister Joschka Fischer expressed support for this idea in an interview with the weekly *Die Zeit* in December 2023, while Manfred Weber, leader of the centre-right European People's Party, voiced similar views in declarations to *Politico Europe* in January 2024. Fischer, 'The Great Revision'; Fischer, 'Ich schäme mich für unser Land'; Huhtanen, 'The War in Ukraine Is Forcing Europe to Develop Its Own Nuclear Deterrence'.

¹⁰⁴ Cimbala and Korb, 'Even in the Face of Russian Aggression'; Tertrais, *The European Dimension of Nuclear Deterrence*; Sauer, 'Power and Nuclear Weapons'; Egeland and Pelopidas, 'European Nuclear Weapons?'; Erästö, *More Investment in Nuclear Deterrence Will Not Make Europe Safer*; Rühle, *German Musings About a European Nuclear Deterrent*.



tional remnants of the Second World War, which continue to hinder political reliability. Historical grievances between France and Germany pose a persistent obstacle to achieving a unified stance on nuclear deterrence within the EU. The second factor is the ambivalent stance of some European states—specifically the EU NATO member states—regarding the Eurodeterrent concept, which have fear as a significant motivation, particularly ‘fear of weakening the transatlantic link’.¹⁰⁵ Andrew Cottey notes that ‘one concern for many NATO member states is that any discussion of a European or EU approach to nuclear deterrence would risk undermining NATO- and US-extended nuclear deterrence’.¹⁰⁶ The third factor relates to entrenched anti-nuclear sentiment and limited ownership among European nations, which restricts the feasibility of a collective EU nuclear arsenal. While Sweden’s recent security posture shift suggests some evolution, there are vocal anti-nuclear movements in several countries, including Ireland and Austria. In terms of ownership, since Brexit, the French nuclear arsenal is the only one available to the EU. The fourth factor concerns the significant disparities among EU member states in their perceptions of nuclear threats. Member states in closer geographic proximity to Russia, and those sharing a history of conflict with the nation, tend to perceive a higher level of threat.¹⁰⁷ This situation complicates the development of cohesive security strategies and hinders progress in both the conventional and the nuclear domains.

Second, beyond political will, establishing an END will require that significant organisational and operational challenges be overcome. Historical failures, such as the Multilateral Force in the 1960s, highlight the complexities of establishing a shared nuclear command.¹⁰⁸ Even potential joint operations by the UK and France face obstacles due to national sovereignty concerns and separate command structures. Furthermore, establishing a credible nuclear deterrent is a time-consuming process, as evidenced by the decades-long development of the US/NATO deterrent against the Soviet Union/Russia. Questions about the sufficiency of the British and French nuclear arsenals for deterring Russia, alongside the need for a robust conventional military force, further complicate the EU’s strategy for a shared deterrent.

¹⁰⁵ Jasper and Portela, ‘EU Defence Integration and Nuclear Weapons’, 159.

¹⁰⁶ A. Cottey, ‘The EU and Nuclear Non-Proliferation: Soft Power and the Bomb’, *Irish Studies in International Affairs* 25 (2014), 93.

¹⁰⁷ For instance, Poland and the Baltic states, which share borders with Russia, experience a heightened sense of vulnerability compared to countries such as Portugal and Spain, which are located at a greater distance.

¹⁰⁸ Kustnetsov, *The Multilateral Force Debates*.



A third reason is the issue of any deterrent's credibility. It took NATO nearly 75 years to establish a credible deterrent against the Soviet Union and Russia, raising doubts about how quickly the EU could achieve similar credibility. Sir Lawrence Freedman's concept of minimum deterrence—'the possession of sufficient nuclear weapons to inflict serious harm in retaliation but no more'—illustrates the ongoing debate about the quantity necessary for a reliable deterrent.¹⁰⁹ Current British and French arsenals, the only European nuclear capabilities, are considered inadequate to deter Russia. Even if France extended its nuclear deterrent to other EU countries, it might still fall short. Additionally, the UK cannot participate in an EU nuclear umbrella without special arrangements. Effective nuclear deterrence also requires robust conventional forces, as demonstrated by historical conflicts such as the 1973 Arab–Israeli War and the 1982 Falklands War, where NWSs were challenged using conventional means. This highlights the need for both nuclear and conventional strength to ensure credible deterrence.

Fourth, complex and unclear decision-making methods hinder the establishment of a Eurodeterrent. A major hurdle for an EU nuclear deterrent lies in command-and-control issues. France and Germany have historically distrusted partners with nuclear authority, as shown by France's Cold War insistence on retaining control over its *force de frappe*.¹¹⁰ The EU's unanimity-based decision-making structure, which emphasises member state sovereignty, complicates the swift, unified action required for nuclear deployment. Additionally, the shortcomings of EU security policymaking hinder the alignment of resources with strategic goals and joint military funding. These challenges require significant decision-making reforms in order for a credible deterrent to be established. Addressing these issues is crucial before committing financially to an EU nuclear deterrent.

Fifth, financial burdens pose significant barriers to developing an END. The substantial costs associated with a European nuclear programme, coupled with the EU's historically limited defence expenditure,

¹⁰⁹ L. Freedman, *The Evolution of Nuclear Strategy* (New York: Palgrave Macmillan, 2003), 195.

¹¹⁰ The expression '*force de frappe*' (strike force) was proposed by the general staff in a note dated 13 February 1958 (see COMAERO, *Un demi-siècle d'aéronautique en France: les missiles balistiques*, Delegation for Armaments, French Ministry for Defence (2004), 64). During the first major parliamentary debate over what was then called the 'strike force', Prime Minister Georges Pompidou summed up the French objective as follows: 'France must therefore possess nuclear weapons of such a power that the aggressor knows with certainty that he cannot hope to attack and defeat without surely suffering destruction such as he could not bear it, or at least that it removes all attraction to the hypothesis of victory. Hence our programme that gives us sufficient destructive capacity because it is equivalent to what our country can represent as a stake'; G. Pompidou, Address to the National Assembly, Paris, 2 December 1964.



cast doubt on its fiscal feasibility. The expenses involved in establishing, maintaining and modernising a nuclear arsenal would place considerable strain on EU finances. On top of that, investing in nuclear capabilities without concurrent enhancements to conventional forces could disproportionately burden nuclear deterrence efforts, potentially yielding minimal overall security benefits. The current imbalance in spending between the US and Europe within NATO, as noted above, highlights the need for greater burden-sharing among European NATO members.¹¹¹ This is particularly important in the light of the organisation's evolving security challenges and the significance of collective security and defence in Europe. Given these financial constraints, adding the substantial costs of a European nuclear initiative to existing pressures makes the project unlikely to be economically viable.

Moreover, political repercussions for the NPT regime constitute a significant concern. Possessing nuclear weapons could pose significant political and diplomatic challenges for the EU, potentially jeopardising the NPT and alienating allies. This possibility raises concerns about nuclear proliferation, as it would potentially encourage other regions or nations to pursue nuclear weapons. Transforming the EU into a federated state to allow it to inherit France's NPT status would offer a theoretical path, but would hinge on trust in France's commitment to EU-wide defence.

Lastly, even if overcoming political, organisational, financial and credibility challenges, including the establishment of a multinational chain of command, were possible, time presents a significant obstacle to establishing a Eurodeterrent against Russia. Developing the necessary infrastructure, from fissile material acquisition to delivery systems and command structures, would take years, if not decades. This extended timeline risks the deterrent becoming obsolete due to a shifting geopolitical landscape, failing to address the immediate threat, or losing public and political support as initial enthusiasm wanes. The effectiveness of an END thus hinges on accurately predicting future threats and maintaining long-term political backing, both significant uncertainties that challenge its viability as a timely and reliable solution.

¹¹¹ NATO, 'Defence Expenditure'.



Arguments in favour of an END

Notwithstanding these factors, the potential benefits of a Eurodeterrent option are significant. It would provide Europe with greater security and decision-making independence, enhance its autonomy, and serve as a deterrent against potential regional aggressors, namely Russia and its allies. In a world where great-power competition is intensifying and the security environment is becoming increasingly uncertain, the case for an END grows stronger with each passing day. Below I have outlined the eight arguments in favour of pursuing an END.

Independent decision-making

An END would give Europe greater control over its security, allowing it to make its own decisions about when and how to use nuclear weapons. The primary arguments in this regard centre on fostering autonomous decision-making capabilities within the EU, granting Europe greater control over its security posture and its ability to deter potential adversaries, and strategically signalling its commitment to regional security. Furthermore, in an increasingly multipolar world, Europe may face security threats that are not aligned with those of the US. An independent nuclear deterrent would empower Europe to act decisively in its own defence, without relying on US approval or risking potential disagreements over strategic priorities.

Enhanced European strategic autonomy

While recent initiatives such as the European Defence Industrial Strategy highlight the goal of industrial autonomy, achieving true strategic autonomy requires an END.¹¹² This would enable Europe to independently deter adversaries such as Russia and China, and would reduce reliance on the US for collective defence. However, this would necessitate deeper EU integration and political cohesion, potentially through qualified majority voting on security issues or core state cooperation led by France and Germany.

¹¹² European Commission, *A New European Defence Industrial Strategy: Achieving EU Readiness Through a Responsive and Resilient European Defence Industry*, Communication, JOIN (2024) 10 final (5 March 2024); D. Fiott, 'Beyond Strategy? Industrial Strategy and the Future of European Defence', *Elcano Royal Institute* (9 May 2024); Vicente, "Euro-Nukes?"; J. Nagashima, *European Strategic Autonomy and Nuclear Deterrence: Progress of EU-NATO Cooperation and Impact on the Indo-Pacific Region*, Sasakawa Peace Foundation (2021).



European clause

The inclusion of the 'European clause' in Germany's 1975 NPT ratification declaration acknowledges the potential for a future collective nuclear deterrent within the EU framework. The three NPT depositary states (the US, the UK and the Soviet Union) did not object to its inclusion, and the clause remains unchallenged. In my view, this clause provides a legal basis for establishing an END, ensuring that the initiative would align with international law and uphold global norms on nuclear weapons without undermining the NPT regime.

Reducing dependence on the US for collective defence

An END would diminish Europe's dependence on the US for defence, addressing concerns about shifting American priorities and political unpredictability. This autonomy is vital for the EU to act independently and decisively in security matters. By developing its nuclear capabilities, Europe could strengthen its role within NATO, creating a more balanced partnership. This strategic move would not only enhance Europe's defence capabilities but also foster a more collaborative transatlantic relationship, with Europe playing a prominent role in global security.

Strengthening nuclear deterrence in the Euro-Atlantic region

This deterrent would offer an added dimension of security for Europe, serving as a complementary component to NATO's existing deterrence framework. On the one hand, it would function to deter potential adversaries while diminishing Europe's dependence on the US for collective defence. On the other hand, positioned as a valuable supplement to NATO's deterrence efforts, it would contribute to the cultivation of a more robust partnership of equals between the US and Europe. This dual role would not only bolster Europe's defence capabilities, but also foster a more balanced and interconnected nuclear deterrent force in the Euro-Atlantic region.

Strengthening bargaining power

The EU's lack of sufficient bargaining power in foreign and security policy leaves it reliant on other powers, particularly the US, which undermines its autonomy and long-term goals. This dependence was evident in the Iran nuclear deal, where the US's withdrawal and sanctions severely affected the agreement



despite the EU's initial success in ensuring its implementation. An independent END would enhance the EU's international bargaining power, granting it greater strategic autonomy and a stronger position in global negotiations. Possessing credible nuclear capabilities would bolster the EU's influence, demonstrate its commitment to security and allow it to assert its interests more effectively on the world stage.

Public opinion

While there are no direct studies or polls on European acceptance of a nuclear deterrent, the Russian invasion of Ukraine may renew debates on the need for such measures. Prior to the invasion, the European public was generally sceptical of nuclear deterrence and the presence of US nuclear weapons in Europe.¹¹³ However, recent studies have found that European respondents became much more 'hawkish' after the invasion—they viewed nuclear deterrence more favourably, were more willing to accept the use of nuclear weapons and were less supportive of withdrawing nuclear weapons from Europe.¹¹⁴

Advocates for an END argue that gaining public support is critical.¹¹⁵ A transparent and well-communicated nuclear deterrence programme can symbolise national strength and security, fostering public confidence and understanding. Public support is not only democratically necessary but also pragmatic for the programme's long-term viability.¹¹⁶

Time

As mentioned in the first part of this section, time poses several constraints and challenges, and it is indeed now running out for Europe to make a decision. The urgency is palpable: the window of opportunity to develop a credible and effective nuclear deterrent is narrowing. If Europe fails to act now, it may find itself increasingly vulnerable to the threats posed by the emerging two-peer challenge.

¹¹³ M. Rapnouil, T. Varma and N. Witney, *Eyes Tight Shut: European Attitudes Towards Nuclear Deterrence*, European Council on Foreign Relations (19 December 2018).

¹¹⁴ M. Onderco, M. Smetana and T. Etienne, 'Hawks in the Making? European Public Views on Nuclear Weapons Post-Ukraine', *Global Policy* 14/2 (2023).

¹¹⁵ Based on the author's research findings and interviews with several nuclear scholars and defence specialists.

¹¹⁶ T. Rudolph, 'Public Opinion and Democracy', in T. Rudolph (ed.), *Handbook on Politics and Public Opinion* (Cheltenham, UK: Edward Elgar Publishing, 2022).



Options: the nature of an END

As discussions on an END evolve, various options are being considered, each with its own approach.

French-led deterrent (option 1)

The first option centres around a French-led deterrent strategy, given that France is the sole EU member possessing nuclear weapons, currently holding about 290 operational warheads deployed by naval and air forces.¹¹⁷ This option envisages two roles for France: providing complementary insurance for European NATO members and offering reassurance to non-NATO EU members.¹¹⁸

One suggestion that would combine these two roles is that EU member states could adopt what France has periodically referred to as *dissuasion élargie* (extended deterrence).¹¹⁹ This French nuclear umbrella would signal to any power contemplating military aggression against a member state of the EU that such an action would effectively mean attacking a country allied with an NWS.¹²⁰ In essence, French extended deterrence would function similarly to US extended deterrence for Europe.¹²¹ However, France is not interested in replicating NATO-style extended deterrence.¹²²

Another proposition suggests a collaborative approach to nuclear deterrence among European countries through *dissuasion concertée* (concerted deterrence). Jacques Mellick, who served as the French Secretary of State for Defence, introduced the term in 1992. The concept behind *dissuasion concertée* is that ‘it would consist of a nuclear power retaining its independence of nuclear decision, while consulting its partners on the arrange-

¹¹⁷ H. Kristensen, M. Korda and E. Johns, ‘French Nuclear Weapons, 2023’, *Bulletin of the Atomic Scientists* 79/4 (2023), 272.

¹¹⁸ Tertrais, *European Dimension of Nuclear Deterrence*, 9.

¹¹⁹ B. Tertrais, ‘L’avenir de la dissuasion élargie’, *FRS Bulletin* no. 103 (November 2022).

¹²⁰ N. Nováky and J. Howorth, *Thinking the Unthinkable: How Might the EU Prepare for and React to a Russian Nuclear Strike on Ukraine?*, Wilfried Martens Centre for European Studies, Policy Brief (October 2022).

¹²¹ Ibid.

¹²² Maitre, ‘Nuclear Deterrence in Europe’.



ments to be made for the application of nuclear fire' if that became necessary.¹²³ This idea was part of broader discussions about the role of nuclear deterrence in post-Cold War European defence policy. For example, the pivotal 1994 French White Paper on Defense (*Livre Blanc*) emphasized that the development of a European nuclear deterrent doctrine was becoming a major topic in the effort to build a common European defence.¹²⁴ However, unfavourable reactions from NATO's European members prompted French authorities to clarify their intentions regarding *dissuasion concertée*.¹²⁵ Despite this, the proposal has largely remained elusive.

Notwithstanding these factors, discussions on shared European nuclear deterrence have persisted over time. Recently, statements by French President Emmanuel Macron have reignited debate on the potential European role of France's nuclear deterrent. For the most part, the recent discussions around a French-led deterrent for Europe largely focus on clarifying President Emmanuel Macron's proposals. In an interview with the author on 8 November 2023, a senior official from an EU NATO member state said that 'France is open to discussing deterrence proposals with any European country'. Macron expressed this sentiment during a speech at L'École de Guerre in 2020, emphasising the 'European dimension' of the French nuclear forces.¹²⁶ The provision of French deterrence could be conducted on a voluntary basis. In this arrangement, European partners could contribute financially to the French nuclear forces in exchange for their nuclear protection.¹²⁷

Moreover, although President Macron simply mentioned 'Europe', this was mostly interpreted as referring to the territory of the EU. However, according to the French authorities, 'the geographic scope of French vital interests protected by nuclear deterrence is not limited to French territory' or Europe.¹²⁸ One possibility within this proposal is that vulnerable European states might host French nuclear weapons on their soil as part of a potential Eurodeterrent posture. This approach, however, could present significant

¹²³ *Le Monde*, 'M. Mellick énumère les différentes formules d'une doctrine nucléaire européenne', 4 February 1992.

¹²⁴ M. Long, É. Balladur, and F. Léotard, 'Livre Blanc sur la Défense' [White Paper on Defense], Paris, French Ministry of Defense (1 June 1994), 56.

¹²⁵ As David Yost noted, this clarification by the French intersected with what he believed could be 'deterrence supported by continuing consultations and substantive consensus'. D. Yost, 'The US and Nuclear Deterrence in Europe, Adelphi Paper no. 326 (London: IISS–Oxford University Press, 1999), 35.

¹²⁶ E. Macron, 'Speech on the Defense and Deterrence Strategy'.

¹²⁷ C. Guerout and J. Moyer, 'France Wants to Extend Its Nuclear Umbrella to Europe. But Is Macron Ready to Trade Paris for Helsinki?', *Bulletin of the Atomic Scientists*, 10 May 2024.

¹²⁸ Author's interview with a senior official from the European External Action Service, Brussels, 8 November 2023.



legal challenges related to the NPT.¹²⁹

In addition, France is not a member of NATO's NPG, therefore its nuclear strategy and policy is relatively independent and is usually dictated by the French president.¹³⁰ Within the French system, the head of state holds the ultimate authority to decide on the use of nuclear weapons.¹³¹ Each new president traditionally delivers a speech in which he highlights the country's vital interests, implicitly defining the contours of French nuclear deterrence.¹³² Paris does not adhere to a no-first-use policy, allowing for the possibility of a 'final warning' strike to signal resolve.¹³³ According to General Thierry Burkhard, the French chief of the defence staff, France's nuclear doctrine emphasises deterrence rather than securing victory or preventing defeat in a war, maintaining strategic ambiguity about the specific conditions under which nuclear weapons might be used.¹³⁴

In general, significant challenges persist, including feasibility issues and trust when it comes to identifying beneficiaries, as well as concerns about credibility, particularly in comparison to Russia's larger arsenal. Concerns exist regarding whether expanding France's deterrent—currently considered minimal compared to Russia's—would result in a credible enough force. This makes the entire proposal a complex and highly debated issue.¹³⁵

Ultimately, one unlikely but potentially feasible solution could be for France to join the NPG under a mixed NATO and French nuclear umbrella. This move would strengthen the European nuclear pillar within

¹²⁹ Under Article I of the NPT, NWSs, including France, are prohibited from transferring nuclear weapons or control over them to any recipient. This presents a significant legal barrier to any nuclear sharing or hosting arrangement within the EU. While the NPT restricts the transfer of nuclear weapons, Washington maintains nuclear sharing agreements with some NATO countries where US nuclear weapons are stationed. In these arrangements, the host countries provide deployment technology, but ultimate control remains with the US. This practice, which predates the NPT, is interpreted by NATO as compliant with Article I, as long as control stays with an NWS. However, this interpretation is frequently criticised by both NNWSs, such as Mexico, and NWSs, such as China.

¹³⁰ All member countries are part of the consultative process in the NPG apart from France, which has decided not to participate. For more background information, see *NATO*, 'Nuclear Planning Group (NPG)' (9 May 2022).

¹³¹ P. Sinovets and A. Vicente, "Nuclear Spring Is Coming": Examining French Nuclear Deterrence in Response to Russia's Actions in Ukraine,' *Fondation pour la recherche stratégique*, Note no. 8/24 (11 March 2024).

¹³² Ibid.

¹³³ Ibid.

¹³⁴ *France, National Defence and Armed Forces Committee*, 'Audition, à huis clos, du général d'armée Thierry Burkhard, chef d'état-major des armées, sur la dissuasion nucléaire', Minutes of meeting no. 31, 16th legislature (11 January 2023).

¹³⁵ B. Tertrais, *French Nuclear Deterrence Policy, Forces, and Future: A Handbook*, *Fondation pour la recherche stratégique*, Recherches & Documents no. 4 (2020), 29.



NATO, avoid legal challenges related to the NPT and address concerns about the credibility of this new European deterrent. Additionally, it could provide an extra layer of support to the US extended nuclear deterrence in Europe as it faces the challenge of the two-peer problem.

Pan-European deterrent (option 2)

Another option could entail multiple EU and non-EU member states jointly controlling a pan-European deterrent, potentially involving the nuclear-armed nations of France and the UK, alongside NNWSs. This *dissuasion concertée*, based on French and British nuclear forces, would entail pooling resources and expertise for a more robust deterrent capability across Europe.¹³⁶

One of the advantages of this option is that the UK and France already have robust bilateral defence cooperation, including shared nuclear research facilities and technology collaboration, established through the signing of the Lancaster House Treaties on 2 November 2010.¹³⁷ The UK–French agreement concerns Europe’s two main defence players and covers both nuclear and conventional matters.¹³⁸

While the UK’s Trident system carries approximately 225 strategic nuclear warheads in submarines, enhancing both the qualitative and quantitative aspects of the French nuclear deterrent capability, concerns persist about the credibility and feasibility of an Anglo-French nuclear umbrella.¹³⁹ These concerns include the obstacles that limit the scope of such a rapprochement, which have been under discussion for

¹³⁶ Vela and Camut, ‘As Trump Looms’; Wintour, ‘UK Could Contribute to Nuclear Shield’.

¹³⁷ The two treaties signed between the two European NWSs are the Treaty for Defence and Security Co-operation and the Treaty Relating to Joint Radiographic/Hydrodynamics Facilities. The former made general provisions for the two European NWSs to develop military activities such as training and exercises; to exchange personnel and information on defence, political orientation and procurement; to jointly procure military equipment; and to facilitate cross-border industrial cooperation. The latter, meanwhile, is a more technical and precise document. A. Vicente, ‘European Nuclear Deterrence and Security Cooperation: Post-Brexit Relations and Challenges’, in C.-A. Baciú and J. Doyle (eds.), *Peace, Security and Defence Cooperation in Post-Brexit Europe* (Cham: Springer, 2019), 180; A. Pannier, ‘UK–French Defence and Security Cooperation’, in H. Meijer and M. Wyss (eds.), *The Handbook of European Defence Policies and Armed Forces* (London: Oxford University Press, 2018), 430.

¹³⁸ UK, Prime Minister’s Office, ‘UK–France Summit 2010 Declaration on Defence and Security Cooperation’ (2 November 2010).

¹³⁹ H. Kristensen and M. Korda, ‘United Kingdom Nuclear Weapons, 2021’, *Bulletin of the Atomic Scientists* 77/3 (2021). The number of warheads is expected to grow following the UK government’s 2021 decision to raise the cap to 260 warheads. C. Mills, *Integrated Review 2021: Increasing the Cap on the UK’s Nuclear Stockpile*, Research Briefing, UK House of Commons Library (19 March 2021).



decades.¹⁴⁰ These are the UK's deep integration with the US nuclear deterrent (particularly in relation to the inclusion of non-NATO European states), differing modernisation timelines in Paris and London, and sheer force of habit.¹⁴¹ Furthermore, with Brexit, the UK has apparently abandoned any intention of playing a leading role in an integrated European defence capacity.

In addition, coordinating decision-making processes and ensuring transparency among diverse participants pose significant challenges. For example, Britain's decision-making process for the use of nuclear weapons is highly centralised and operationally independent. Only the prime minister has the authority to order the use of the UK's nuclear weapons, even if they are deployed as part of a NATO response.¹⁴² This ensures that the decision remains under strict national control. The UK's nuclear deterrent policy underscores the country's commitment to using nuclear weapons only in extreme circumstances for self-defence, including the defence of NATO allies.¹⁴³

Eurodeterrent model (option 3)

The Eurodeterrent option refers to EU member states jointly developing and maintaining a credible nuclear capability to deter adversaries and safeguard security interests, supported by the legal viability of the European clause. This option encompasses two possibilities with regard to NATO's existing nuclear umbrella.

One variant aligns with NATO, strengthening collective defence either through contributions to existing capabilities or through separate forces operating under NATO's deterrent and defence strategy, as exemplified by the Berlin Plus framework.¹⁴⁴ This variant could be titled the 'NATO Europe deterrent'. Alternatively, a

¹⁴⁰ Nováky and Howorth, *Thinking the Unthinkable*.

¹⁴¹ Ibid.

¹⁴² C. Mills, *Nuclear Weapons at a Glance: United Kingdom*, Research Briefing, UK House of Commons Library (3 May 2023).

¹⁴³ Ibid.

¹⁴⁴ Author's interview with a senior official from the European External Action Service, Brussels, 15 November 2023. The Berlin Plus framework primarily focuses on crisis management and does not explicitly address nuclear issues. However, its emphasis on operational cooperation could theoretically extend to nuclear deterrence if both NATO and the EU were to decide to incorporate such aspects into their strategic partnership. This extension would be particularly relevant if a potential Eurodeterrent were to involve only EU member states that are also part of NATO, thereby strengthening the European pillar of NATO.



non-aligned Eurodeterrent could be developed as an alternative outside of NATO. This approach would aim to establish strategic autonomy in European security by creating an independent nuclear arsenal.

Both modalities of Eurodeterrent could operate within a security framework that would allow EU member states outside of NATO, such as Malta, Ireland and Austria, to opt out of this nuclear deterrent option. Conceptually, an option akin to the Schengen Area or the eurozone, in which only select EU countries participate, could be considered. However, only the non-aligned Eurodeterrent model would extend protection to Cyprus. This is because Cyprus remains the sole EU member state that is neither fully recognised by the North Atlantic Alliance nor a member of NATO's Partnership for Peace, a programme of bilateral and security cooperation between individual countries and NATO. Nonetheless, both modalities face challenges, including and primarily the necessity of establishing forceful decision-making structures within the EU.

Moreover, the EU would need to develop a clear, swift and unambiguous decision-making procedure for the deployment of nuclear weapons. This procedure should include having a designated European political leader possessing sole authority to order their use.

Regardless of the specific decision-making process, a group of European states within the European nuclear pillar of NATO or within an EU institutional framework could establish an organ similar to NATO's NPG for a Eurodeterrent. Proposed here as the European Nuclear Planning Group (ENPG), this organ would serve as the senior consultative body on nuclear deterrence matters within the EU. Unlike NATO's NPG, France, being the EU's only NWS, would participate in this new ENPG. The ENPG would facilitate consultation and coordination among European states on nuclear deterrence policies, strategies and operational matters.

Indigenous German nuclear programme (option 4)

As a fourth and last option, if both the US and France are considered unreliable security guarantors against Russian threats, and if the development of a Eurodeterrent proves unfeasible, Germany could theoretically pursue an indigenous nuclear deterrent.¹⁴⁵ Its intended purpose, whether for national defence

¹⁴⁵ Fischer, 'Great Revision'.



or broader EU-wide security, would need to be considered when shaping decisions regarding size, deployment and doctrine. Despite being an NNWS, Germany possesses technical capabilities that could enable the development of a limited nuclear arsenal within a relatively short time frame.¹⁴⁶

However, the advancement of a German nuclear deterrent faces significant technical, legal and political challenges.¹⁴⁷ Furthermore, renouncing the NPT could have adverse implications for the security of Germany and Europe. Additionally, it could undermine the global non-proliferation and disarmament regime. In light of these significant barriers and potential costs, a German nuclear deterrent remains largely unfeasible for the foreseeable future. Nonetheless, it could be considered as a last resort if the other three options prove unachievable.

Table 2 Comparative analysis of the options for a Eurodeterrent

Indicators	Option 1	Option 2	Option 3	Option 4
Countries involved	France + European countries (voluntary basis)	France + UK + EU member states and non-EU member states	EU member states, preferably all EU NATO member states	Germany + EU member states
Strategic collaboration	Non-existent	Non-existent, even though the UK and France have close defence and security cooperation agreements	Non-existent	Non-existent
Political consensus	No	No	No	No
NPT compliance and commitment	Yes, but only if French nuclear weapons were neither transferred nor deployed to other European countries, or were used under a mixed NATO and French nuclear umbrella approach.	Yes	Yes	No, unless Germany decides to incorporate its nuclear weapons programme under the EU framework.

¹⁴⁶ B. Kunz and U. Kühn, 'German Musings About a Franco–German or German Bomb', in U. Kühn (ed.), *Germany and Nuclear Weapons in the 21st Century* (New York: Routledge, 2024), 123.

¹⁴⁷ Ibid.



Alliance coordination (complementarity with NATO)	No, unless it becomes a member of NATO's NPG.	Maybe	Preferably	Maybe
Nuclear weapons infrastructure (command-and-control system)	Minimal (Nuclear command, control and communications) ¹⁴⁸	Minimal (Nuclear command, control and communications/Continuous at-Sea Deterrence) ¹⁴⁹	Non-existent	Non-existent
Final decision-maker	French president	French president and UK prime minister	EU-designated political leader	German chancellor
Deterrence credibility	Minimum	Minimum plus	As a second layer to US extended nuclear deterrence to NATO	-

¹⁴⁸ Nuclear command, control and communications systems include both air-based systems (Rafale fighter-bombers) and sea-based systems (Triomphant-class submarines). For a critical analysis of French nuclear command, control and communications systems, see B. Pelopidas, France: Nuclear Command, Control, *And Communications*, Technology For Global Security, Special Report (13 June 2019).

¹⁴⁹ The UK's Continuous at-Sea Deterrence posture ensures that at least one nuclear-armed ballistic missile submarine, specifically a Vanguard-class submarine equipped with Trident II D-5 missiles, is on patrol at all times.



Requirements for building an END

Regardless of the option selected, building an END would require a complex convergence of eight crucial elements.¹⁵⁰ These are outlined below.

1. *Strategic collaboration.* At the forefront of the requirements is strategic collaboration among European nations. The success of an END hinges on the willingness of member states to pool their resources, intelligence and strategic capabilities. A harmonised approach would foster a shared understanding of common security threats, contributing to the seamless integration of diverse national interests into a cohesive and robust nuclear deterrence strategy.
2. *Political consensus.* Political will is imperative when navigating the complexities of nuclear deterrence. The proposal necessitates the existence of a coherent political vision among the participating nations. This consensus would need to extend beyond strategic goals to include the principles that underpin the ethical and responsible use of nuclear capabilities. Establishing a shared political foundation would ensure steadfast commitment and coherence, reinforcing the credibility of the deterrent.
3. *NPT compliance and commitment.* Any pursuit of a European deterrent must adhere rigorously to the principles outlined in the NPT, including its non-proliferation obligations and transparency measures, in order to showcase its compliance. This could be achieved through two approaches: either by establishing a Eurodeterrent with a newly developed joint nuclear arsenal, as outlined in the European clause, or by adopting a somewhat Europeanised deterrent model based on the existing nuclear forces of France and the UK, both of which are recognised by the NPT as NWSs.
4. *Expertise and technologies.* Developing and maintaining a credible END would necessitate establishing a substantial pool of expertise in nuclear weapon design, production and management. Furthermore, stringent safeguards and security protocols would be imperative to guarantee the safe and responsible handling of nuclear materials. To achieve this, a new strategy would need to be formulated for accessing raw materials, such as uranium, either within Europe or through partnerships with third

¹⁵⁰ Based on my research and interviews with several nuclear scholars and defence specialists.



countries. This strategy could be developed within the frameworks of the European Atomic Energy Community and the Nuclear Suppliers Group, with oversight provided by the International Atomic Energy Agency. Furthermore, access to advanced technologies, including miniaturisation and precision delivery systems, would be vital for ensuring the modernity and effectiveness of the deterrent.

5. *Credibility.* To establish a credible nuclear deterrent, it is essential to minimise decision-making ambiguity by establishing clear and unambiguous procedures for deploying or using nuclear weapons. First, this would involve defining a clear authority and transparent criteria for decision-making, reducing the risk of miscalculation and strengthening deterrence credibility. Second, transparent decision-making processes, collaborative research and development efforts, and proactive multilateral diplomacy would be vital for fostering understanding of the deterrent doctrine. Third, a robust and capable arsenal, effective command and control mechanisms, and a clear and unambiguous message of deterrence would be crucial for enhancing credibility. This process should also include designating a European political leader with the sole authority to order the use of nuclear weapons.
6. *Command and control.* The establishment of an END would require a robust command-and-control infrastructure. This structure should include advanced verification mechanisms, secure communication channels, efficient decision-making processes and clearly defined lines of authority. It is crucial to have a European final decision-maker with sole authority to order the use of nuclear weapons. A sophisticated command-and-control system would not only improve the operational effectiveness of the deterrent but also facilitate a prompt and coordinated response to potential threats.
7. *Operations and tests.* The feasibility and reliability of an END would rely on rigorous testing and operational readiness. Regular exercises and simulations would be vital to evaluate the system's functionality, pinpoint potential weaknesses and enhance operational procedures, and would need to be carried out without violating the obligations of the Comprehensive Nuclear-Test-Ban Treaty. This would mean avoiding any nuclear explosions or releases of radioactive materials. Successfully adhering to the treaty while conducting the necessary tests would require creativity and innovation. Laboratory and AI-generated simulation scenarios could be powerful tools for evaluating the deterrent's capabilities without violating the treaty. These tests would play a crucial role in continuously improving the deterrent's capabilities, and instilling confidence among EU member states and other potential European participants.



8. *Alliance coordination (complementarity with NATO).* A potential END should strive for seamless integration with existing security structures, particularly NATO. Collaborative efforts should ensure synergy in defence planning, eliminate duplication and present a united front against shared threats. This close alliance coordination would strengthen Europe's overall deterrence posture, presenting a unified defence to potential aggressors.

Crucially, any END must complement, not compete with, NATO's existing nuclear strategy. Maintaining transparency and close coordination with NATO allies throughout the process would be paramount. This means ensuring interoperability with NATO's nuclear forces, fostering open communication channels, and avoiding actions that could weaken NATO's cohesion and effectiveness. In essence, a European deterrent should act as an extension of NATO's capabilities, not a replacement.

Policy recommendations

Regardless of the chosen option, any END must be common, credible and feasible. To achieve these objectives, the following policy recommendations should be considered.

First, achieving commonality among European nations regarding a nuclear deterrent requires political and strategic considerations to be addressed. On the one hand, fostering political consensus necessitates overcoming the significant divisions within the EU regarding nuclear deterrence. On the other, strategic collaboration is crucial to ensure that the deterrent aligns with the collective security interests of Europe. Therefore, the following actions are recommended:

Recommendation 1. Initiate a systematic and open debate among EU member states on the concept and implications of a shared END while building a common understanding of the strategic role of nuclear deterrence in addressing contemporary geopolitical challenges and security vulnerabilities.



Recommendation 2. Conduct, within a year, a comprehensive intergovernmental feasibility study on establishing an END.

Recommendation 3. Foster political consensus and determine the most credible and feasible option for establishing an END among participating states, if possible, by the end of 2025, following a thorough consideration of the findings and recommendations outlined in the feasibility report.

Second, ensuring the credibility of an END is vital for deterring potential threats or attacks on the continent. This credibility would be bolstered through the establishment of a robust and capable arsenal, harmonised doctrine and structure, effective command-and-control mechanisms, and a clear and unambiguous deterrence message. Additionally, any European nuclear deterrent must seamlessly complement, rather than compete with, NATO's existing nuclear deterrence strategy and policy.¹⁵¹ For this, the following actions are proposed:

Recommendation 4. Establish a consultative expert council comprising nuclear scholars and defence planners to discuss and develop nuclear doctrine.¹⁵² This council will leverage their expertise and experience to provide informed guidance and recommendations, ensuring that the doctrine is both credible and effective.

¹⁵¹ Deterrence strategy, on the one hand, sets the broad philosophical approach to using nuclear weapons as a deterrent. It defines objectives (e.g. preventing attacks, deterring escalation), principles (e.g. first-use policy, minimum deterrence) and the capabilities needed. Examples include the US Mutually Assured Destruction strategy and NATO's 'flexible response' or 'sword and shield' strategy. The latter refers to the dual approach of balancing nuclear and conventional deterrence to ensure the security of NATO member states. Deterrence policy, on the other hand, translates the strategy into concrete actions. It focuses on decision-making processes for launching nuclear weapons, targeting plans for specific scenarios, and command-and-control structures for activating and utilising nuclear forces. Examples include specific targeting plans developed by military planners or training exercises simulating nuclear response scenarios.

¹⁵² The council should consist of a diverse group of experts with extensive knowledge of nuclear policy, international relations, defence and security. This would include (1) former and current high-ranking officials from the EU and NATO with experience in nuclear policy and strategy; (2) renowned nuclear experts from academia, think tanks and research institutions; and (3) experts with a background in international law, diplomacy and conflict resolution. The council's primary objective would be to provide expert advice and recommendations on nuclear doctrine, policy and strategy to European institutions, agencies and stakeholders. Second, members would engage in regular discussions, debates and analysis to stay up-to-date on the latest developments in nuclear policy and international security. Third, the council would also facilitate knowledge sharing and collaboration among its members, promoting a more comprehensive understanding of the nuclear landscape. In terms of meetings and communication, the council would convene regularly, ideally quarterly, to discuss pressing issues and share insights. Meetings would be conducted in a secure and confidential environment to ensure open and honest discussions. Members would maintain regular communication through email, phone and video conferencing to stay informed and address urgent matters. Finally, the council would produce regular reports and recommendations on nuclear doctrine, policy and strategy, which would be shared with relevant stakeholders. These reports would provide in-depth analysis and expert insights on key issues of nuclear deterrence.



Recommendation 5. Outline the specific threats to be deterred, the parameters of the deterrence posture and the conditions under which nuclear weapons would hypothetically be used; this step encompasses target selection and communication protocols.

Recommendation 6. Implement AI-generated simulation scenarios to inform European nuclear doctrine and provide tools for developing a credible and robust policy. These simulations should model various threat environments, assess potential responses and identify strategic gaps, thereby enhancing the overall credibility and effectiveness of Europe's nuclear deterrent strategy.

Recommendation 7. Establish clear criteria for the size and composition of the European nuclear arsenal, with specific milestones for the development of a nuclear command-and-control system, technological advancements, nuclear warheads and delivery systems.

Recommendation 8. Align, if possible, the END doctrine with NATO's overall collective defence strategy to ensure it reinforces NATO's deterrence position. Include cooperation mechanisms for working with non-NATO European states.

Third, the creation of a feasible European nuclear weapons infrastructure is a pivotal step and requires at least the following steps to be taken:

Recommendation 9. Draw upon existing European capabilities and establish a European-led nuclear deterrent that involves the transfer, acquisition or development of nuclear warheads and delivery systems.

Recommendation 10. Allocate a specified percentage of the member states' defence budgets to the development and implementation of a credible European nuclear command and control, including warheads and delivery systems, with annual progress assessments.

Recommendation 11. Develop a clear, swift and unambiguous decision-making procedure for the deployment of nuclear weapons, with a European final decision-maker possessing sole authority to order their use.



Conclusion

The re-emergence of the debate on and rationale for an END is driven by Russia's nuclear signalling amid its war against Ukraine and China's challenge to the Western-led liberal order with the abrupt expansion of its nuclear arsenal. Concurrently, concerns over US security commitments and the potential re-election of Donald Trump have brought fresh urgency to the issue.

The current debate on an END is marked by significant and recurring obstacles. Despite most member states heavily relying on the US and NATO for collective defence, the EU still faces security vulnerabilities. For example, the absence of a cohesive and coherent EU approach to nuclear deterrence leaves many nations exposed, lacking a common nuclear deterrent and contributing unevenly to NATO's extended nuclear deterrence strategy. Other challenges include fear of weakening the extended deterrence offered by NATO and the US, a lack of political will, entrenched anti-nuclear sentiment in non-NATO EU member states including Austria and Ireland, issues of credibility, complex and unclear decision-making methods, as well as the operational complexities of a shared nuclear command.

Despite these challenges, I argue that a credible and effective END could bolster Europe's defence capabilities, reduce dependence on the US, enhance the EU's strategic autonomy and improve its bargaining power on the global stage. In response to the need to establish an END, this paper has explored four options, including a French-led approach, a pan-European deterrent (based on French and British nuclear forces), a Eurodeterrent and an indigenous German nuclear programme. The first option envisages leveraging France's existing nuclear capabilities. While ensuring NPT compliance, this option lacks strategic collaboration and political consensus among European states. The French president would retain sole decision-making authority, limiting the deterrent's credibility if extended beyond France's vital interests.

The second option proposes a pan-European deterrent involving multiple EU and non-EU states, including the nuclear-armed nations of France and the UK. Decision-making would be shared between the French president and the UK prime minister, potentially enhancing the deterrent's credibility. Nonetheless, this option faces challenges in terms of achieving political consensus, strategic collaboration, and a unified command-and-control structure.



The third option is a Eurodeterrent model involving EU member states jointly developing and maintaining a nuclear capability. While likely to be a complement to NATO's deterrence strategy and NPT compliant, this option lacks existing political consensus, strategic collaboration and nuclear infrastructure. A designated EU political leader would hold decision-making authority, potentially offering a credible second layer of deterrence alongside NATO, and would therefore effectively serve as a European nuclear pillar within the Alliance.

The last option, an indigenous German nuclear programme, is the least feasible option due to its violation of the NPT and the lack of existing nuclear infrastructure. While granting Germany autonomous decision-making authority under the chancellor, this option's deterrence credibility remains questionable and it could undermine the NPT regime.

Overall, while all options face significant challenges in achieving political consensus, strategic collaboration and credible deterrence, the third option—a Eurodeterrent variant—emerges as the most promising avenue for establishing an END.

One way forward in this regard would be for the existing nuclear capabilities of the two European NWSs to be utilised and developed through an Anglo-French nuclear umbrella. Alternatively, if France decided to join the NPG, a combined NATO and French nuclear umbrella approach could be a feasible solution. Both options would avoid many challenges and contribute to strengthening the European nuclear pillar within NATO. Another possibility would be to develop a new European NATO deterrent within the EU framework which takes into account the above-mentioned eight requirements for building an effective END. This would require the establishment of a consultative and collective decision-making body (ENPG) to oversee all aspects of an effective END and the designation of a European political leader with sole authority to order the use of nuclear weapons

In conclusion, this paper aims to advance the discussion on the need for Europe to develop its own nuclear deterrent in the current security environment and evolving global order. I argue that the best option for a Eurodeterrent lies in establishing a European NATO deterrent, which would offer an additional layer of support to the US's extended nuclear deterrence in Europe, particularly as it grapples with the challenge of the two-peer problem.

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