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EUROPEAN UNION'S QUEST FOR STRATEGIC AUTONOMY IN DEFENCE

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Abstract

The Russian invasion of Ukraine in February 2022 served as a powerful, decisive catalyst for European Union (EU) defence industrial integration, exposing critical vulnerabilities in the Union's historically fragmented defence industrial base (DIB). This paper argues that the industrial-technological dimension is foundational for realizing credible strategic autonomy, overriding previous concerns about national industrial sovereignty.

The war necessitated an immediate shift from voluntary cooperation to rapid, coordinated industrial action. This strategic change is evidenced by the launch of emergency measures like the Act in Support of Ammunition Production (ASAP) and the introduction of the comprehensive European Defence Industrial Strategy (EDIS), supported by the ReArm Europe plan. These initiatives aim to standardize procurement and establish common capability targets.

By analyzing these crisis-driven measures, the study concludes that the Ukraine war has generated irreversible momentum toward deeper industrial integration. Despite enduring challenges from political fragmentation and national industrial competition, industrial readiness is now recognized as a strategic imperative, materially advancing the EU's trajectory and cementing a robust DIB as the essential bedrock for long-term strategic autonomy.

List of Acronyms:

ASAP: Act in Support of Ammunition Production
CSDP: Common Security and Defence Policy
EDA: European Defence Agency
EDEM: European Defence Equipment Market
EDF: European Defence Fund
EDIS: European Defence Industrial Strategy
EU: European Union
NATO: North Atlantic Treaty Organisation
PESCO: Permanent Structured Cooperation
SAFE: Security Action for Europe (part of EDIS/Readiness 2030)

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1. Introduction

The Russian invasion of Ukraine in February 2022 marked a pivotal moment for European security and defence policy. For the first time since the end of the Cold War, Europe faced large-scale conventional warfare on its eastern border, exposing the profound vulnerabilities of the European Union's (EU) defence industrial base.[1] Historically, the EU has primarily been recognised as a normative and economic power, with its Common Security and Defence Policy (CSDP) initiatives—such as the European Defence Fund (EDF) and Permanent Structured Cooperation (PESCO)—struggling to overcome structural fragmentation and reliance on the United States for critical military capabilities.

The war in Ukraine, however, underscored the strategic necessity of rapidly enhancing the EU's industrial and technological dimension of strategic autonomy. This concept, which denotes the capacity to act independently in security matters while remaining open to cooperation, is multi-faceted: political, military, and industrial-technological. Among these, the industrial dimension is foundational: it encompasses the EU's ability to produce, maintain, and innovate critical military capabilities, thereby ensuring operational readiness and reducing dependence on non-European suppliers [2]. Without a robust, unified defence industrial base, political or military autonomy remains merely aspirational.

This paper focuses specifically on how the Ukraine war has decisively catalysed European defence industrial integration. It examines the role of established mechanisms (EDF, PESCO) alongside new, urgent measures such as the **Act in Support of Ammunition Production (ASAP)** and the proposals contained within the **European Defence Industrial Strategy (EDIS)**, specifically the **ReArm Europe** plan and the **White Paper on European Defence – Readiness 2030.**[3] By analysing these measures, the paper demonstrates how operational pressures and strategic imperatives have accelerated cooperation in defence production, technological development, and joint procurement. Furthermore, it explores the enduring challenges—political, financial, and technological—that remain in consolidating a truly autonomous European defence industrial base. By emphasizing the industrial and technological dimension, this study argues that while full strategic autonomy is still a long-term objective, the Ukraine war has materially advanced Europe's defence integration trajectory, providing an unprecedented opportunity to reduce fragmentation and solidify operational capability.

2. Conceptual Framework: Strategic Autonomy and the Industrial Dimension

Strategic autonomy is a multidimensional concept encompassing political, military, and industrial-technological dimensions. While the political dimension emphasizes the EU's ability to adopt coherent foreign policy positions, and the military dimension involves the capacity to deploy and sustain forces, the industrial-technological dimension is central to the Union's ability to act independently. Industrial autonomy ensures that Europe can design, manufacture, and maintain key

[1] European Union Institute for Security Studies, *Strategic autonomy: Towards 'European sovereignty' in defence?* (Publications Office of the EU, 2019).
[2] Daniel Fiott, *EU Defence After Ukraine: Between Autonomy and Alliance* (EUISS Brief, 2023).
[3] European Commission, *White Paper on European Defence – Readiness 2030*, 2025.

defence systems, from missiles and drones to cyber and satellite technologies, thereby sustaining operational capabilities and political credibility[4].

The industrial dimension is inseparable from operational and political autonomy. Without indigenous production of munitions, advanced weaponry, and technology, Europe remains dependent on external suppliers. The early stages of the Ukraine war vividly demonstrated this dependency: shortages in drones, missiles, and ammunition threatened both operational support for Ukraine and broader European defence readiness. As Fiott notes, technological sovereignty is not merely a matter of economic efficiency—it underpins Europe's ability to act independently and credibly in international security affairs [5].

Theoretical perspectives on European integration provide insight into the dynamics of industrial strategic autonomy. ***Neofunctionalism*** posits that crises generate spillover effects, compelling deeper integration in related sectors. The Ukraine war exemplifies this mechanism: immediate operational and strategic demands accelerated joint procurement, industrial cooperation, and research funding across EU member states. Similarly, liberal institutionalism underscores the role of EU institutions in coordinating defence policy, pooling resources, and ensuring interoperability, thereby reducing duplication and increasing efficiency. Conversely, ***strategic realism*** highlights the structural necessity of industrial autonomy: in an anarchic international system, reliance on external powers can limit Europe's strategic options, making indigenous industrial capacity a critical safeguard [6].

The EU's industrial autonomy has a historical trajectory. Initiatives such as the European Defence Agency (EDA) and early PESCO projects laid the groundwork for cooperation, yet national procurement fragmentation, technological divergence, and limited funding constrained progress. The EDF, launched in 2021, represents a major step forward, funding collaborative research, development, and industrial projects to enhance European capability. More recently, the comprehensive **European Defence Industrial Strategy (EDIS)**, detailed partly in the *White Paper on European Defence – Readiness 2030*, provides a strategic roadmap for closing capability gaps, supporting technological sovereignty, and consolidating industrial integration [7]. Together, these frameworks illustrate that industrial integration is both a practical necessity and a cornerstone for realizing broader strategic autonomy.

3. EU Defence Industrial Base Before the War

Before 2022, the EU's defence industrial base was characterized by fragmentation, inefficiency, and reliance on non-EU suppliers. Member states maintained largely autonomous procurement systems, leading to duplication, limited economies of scale, and reduced interoperability. Advanced defence industries existed primarily in France, Germany, and Italy, whereas smaller states relied on imports or licensing agreements, creating an uneven technological landscape.

PESCO, launched in 2017, provided a mechanism for voluntary cooperation, aiming to improve interoperability and foster joint capability development. Yet the scale of projects and level of funding remained modest relative to Europe's operational needs. Similarly, the EDF, introduced in 2021,

[4] Nicole Koenig, *PESCO, EDF and the Strategic Compass: Making EU Defence Real* (Jacques Delors Centre, 2023).
[5] Fiott, *EU Defence After Ukraine.*
[6] Sven Biscop, *European Strategy in the 21st Century: New Future for European Defence* (Routledge, 2022).
[7] European Commission, *White Paper on European Defence – Readiness 2030.*

allocated funds for research and development of innovative defence technologies. Early projects included UAVs, cybersecurity solutions, and missile systems, but their reach was limited by fragmented national strategies, industrial competition, and uneven member-state participation [8].

The Ukraine war exposed operational consequences of these industrial limitations. Rapid deployment of lethal aid to Ukraine revealed shortages in drones, air defence systems, and munitions. National production capacities were insufficient to sustain high-intensity operations, highlighting the strategic risks of fragmentation and dependency on the United States for critical supplies. Eastern European states, heavily reliant on NATO, had limited domestic production, while Western European states faced production bottlenecks in key technologies, including long-range precision munitions and surveillance systems [9].

Industrial coordination was further complicated by political divergence. Eastern countries emphasized NATO-led security, while France, Germany, and Italy championed EU-led initiatives. Funding disparities, lack of harmonized standards, and competitive industrial interests hindered the EU's ability to create a coherent, unified defence market. This structural fragmentation underscored the need for accelerated integration, a process that would be catalysed by the Ukraine crisis.

4. The Ukraine War as a Catalyst for Industrial Integration

The Ukraine war served as a powerful catalyst for European defence industrial integration, transforming both policy priorities and operational approaches. Immediate operational needs highlighted critical industrial gaps, while political pressure fostered unprecedented cooperation among member states.

4.1. Emergency Measures and Strategic Industrial Frameworks

The **Strategic Compass (2022)** identified key capability gaps and proposed concrete measures to enhance rapid deployment, joint procurement, and technological readiness.[10] More critically, the crisis necessitated direct industrial intervention. Firstly, the **Act in Support of Ammunition Production (ASAP)** was launched as an emergency tool to expand and scale up industrial production capacity across member states, specifically targeting the severe shortages in critical munitions and reducing import dependency. Also, both the **European Defence Industrial Strategy (EDIS)** and the **Readiness 2030** provide the long-term framework. Key initiatives include the **ReArm Europe Plan**, mobilizing significant investment to bolster defence capabilities, production facilities, and technological innovation, and the **Security Action for Europe (SAFE)**, financing targeted investments in critical technologies [11].

The strategic importance of these mechanisms lies in their shift from cooperative development to coordinated industrial action. ASAP, for instance, represents an unprecedented intrusion by the EU into national production planning, offering financial incentives (€500 million) to retool and upgrade factories, thereby mitigating market fragmentation risks. This move signifies the EU's recognition that *speed and scale* are now paramount, overriding previous concerns about subsidiarity in defence production. Furthermore, the proposals within **EDIS** aim to establish common procurement targets (with the goal of 40% of defence equipment being procured jointly by 2030) and standardize defence

[8] Fiott, EU Defence After Ukraine.
[9] Koenig, *PESCO, EDF and the Strategic Compass*.
[10] European External Action Service, *Strategic Compass for Security and Defence*, 2022, accessed
[11] European Commission, *White Paper on European Defence – Readiness 2030*.

trade within the EU, thereby creating a truly unified European Defence Equipment Market (EDEM). These initiatives together define a new industrial policy that actively seeks to steer national investment toward common European capabilities, fundamentally altering the operating environment for defence contractors. This centralized policy push is the most definitive response yet to the fragmentation that plagued the pre-war industrial landscape.

4.2. Accelerated PESCO and EDF Projects

PESCO projects have expanded in response to operational needs, including interoperable drone systems, advanced air defence, missile development, and secure communication networks. These projects foster economies of scale, reduce duplication, and enable technological standardisation. The EDF complements these initiatives by funding joint R&D projects in AI, cyber defence, and dual-use technologies, supporting innovation and industrial capacity. The urgency created by the war accelerated both PESCO and EDF initiatives, confirming the neofunctionalist prediction of a "spillover" effect compelling deeper collaboration.

4.3. Pursuit of Technological Sovereignty

Beyond immediate operational demands, the EU emphasizes technological sovereignty as a pillar of strategic autonomy. Control over key technologies—including drones, satellite communications, cyber systems, and AI-enabled defence tools—is essential to maintain credibility and operational independence. Industrial integration ensures Europe can sustain these technologies, innovate effectively, and respond to crises without excessive reliance on external actors.

5. Challenges and Prospects

Despite these advances, significant challenges remain, such as the political fragmentation and the NATO-EU nexus. While the EU has shown unity in supporting Ukraine, fundamental differences remain. Eastern European countries often prioritize interoperability with and procurement from the United States (via NATO) to address immediate Russian threats, often preferring proven, non-European systems (e.g., F-35s). Western member states, particularly France, stress the *European* character of strategic autonomy and prefer indigenous development [12]. This divergence creates an investment chasm, where Eastern reliance on NATO often translates to less financial and political buy-in for EU-led initiatives, slowing the integration of the internal market. The EU must navigate this complex security architecture to ensure its industrial strategy complements, rather than competes with, the needs articulated within the NATO framework.

Another challenge would be the industrial coordination and competition. National defence industries frequently compete for contracts, causing duplication and inefficiency. Harmonising standards and consolidating supply chains remain major hurdles. This tension is exemplified by major industrial programs remaining stubbornly national or bilateral (e.g., FCAS and MGCS), which threaten to institutionalize deep cleavages in the technological base. The success of EDIS depends on overcoming this deeply rooted preference for *juste retour* (return on investment) where member states demand proportional industrial benefits for their financial contributions. Unless the EU can ensure transparent, merit-based contracts that prioritize efficiency over nationalistic industrial planning, the intended

[12] Biscop, *European Strategy in the 21st Century*.

economies of scale and interoperability gains from EDF and joint procurement mechanisms will be severely constrained [13].

More than this, the Funding and Capacity Limitations remain very important challenges. While EDIS and ReArm Europe propose ambitious investment plans, execution depends on sustained political commitment and the successful scaling up of production capacities.

A significant parameter is the dependency on non-EU Suppliers. Critical components, such as specialized electronics and missile guidance systems, still rely on non-European suppliers. Achieving full technological sovereignty will require ongoing, long-term R&D investment.

Prospects: The Ukraine crisis has galvanized political will, accelerated PESCO and EDF projects, and underscored the strategic value of industrial integration. With sustained investment and harmonized policies, the EU can develop a robust defence industrial base capable of sustaining operations, driving innovation, and underpinning strategic autonomy.

6. Conclusion

The war in Ukraine has dramatically accelerated European defence industrial integration, demonstrating both structural vulnerabilities and critical opportunities. Operational shortages in munitions, drones, and air defence revealed the strategic risks inherent in Europe's fragmented industrial capacity, while the geopolitical urgency fostered unprecedented cooperation. Initiatives such as ASAP, the accelerated EDF and PESCO projects, and the comprehensive **European Defence Industrial Strategy (EDIS)** collectively represent a coherent, crisis-driven strategy to strengthen the EU's industrial and technological base.

While significant challenges persist—including political divergence, funding constraints, and technological dependency—the Ukraine war has created unstoppable momentum toward deeper industrial integration. By consolidating production, harmonizing standards, and heavily investing in R&D through instruments like **ReArm Europe**, Europe is materially enhancing its operational readiness and moving toward a credible level of strategic autonomy in the industrial domain.

Ultimately, industrial and technological integration is not only an operational necessity but a strategic imperative that underpins political credibility. The Ukraine crisis has forced the EU to bridge the gap between its strategic ambition and its tangible military-industrial capability. By fully implementing EDIS and fostering technological sovereignty, the EU is cementing industrial readiness as the bedrock upon which its long-term strategic autonomy will be built.

[13] Koenig, *PESCO, EDF and the Strategic Compass*.

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