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Annual Battle Readiness on the Eastern Flank

2026

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The GLOBSEC Future Security & Defence Council is an initiative supported by an Advisory Committee made up of renowned defence experts, national and private sector leaders, and champions of international diplomacy. It is designed to connect a diverse set of public and private stakeholders and act as a centre for idea generation and exchange that will deliver pragmatic policies and strategies. The process includes regular meetings of the Council and consultations.

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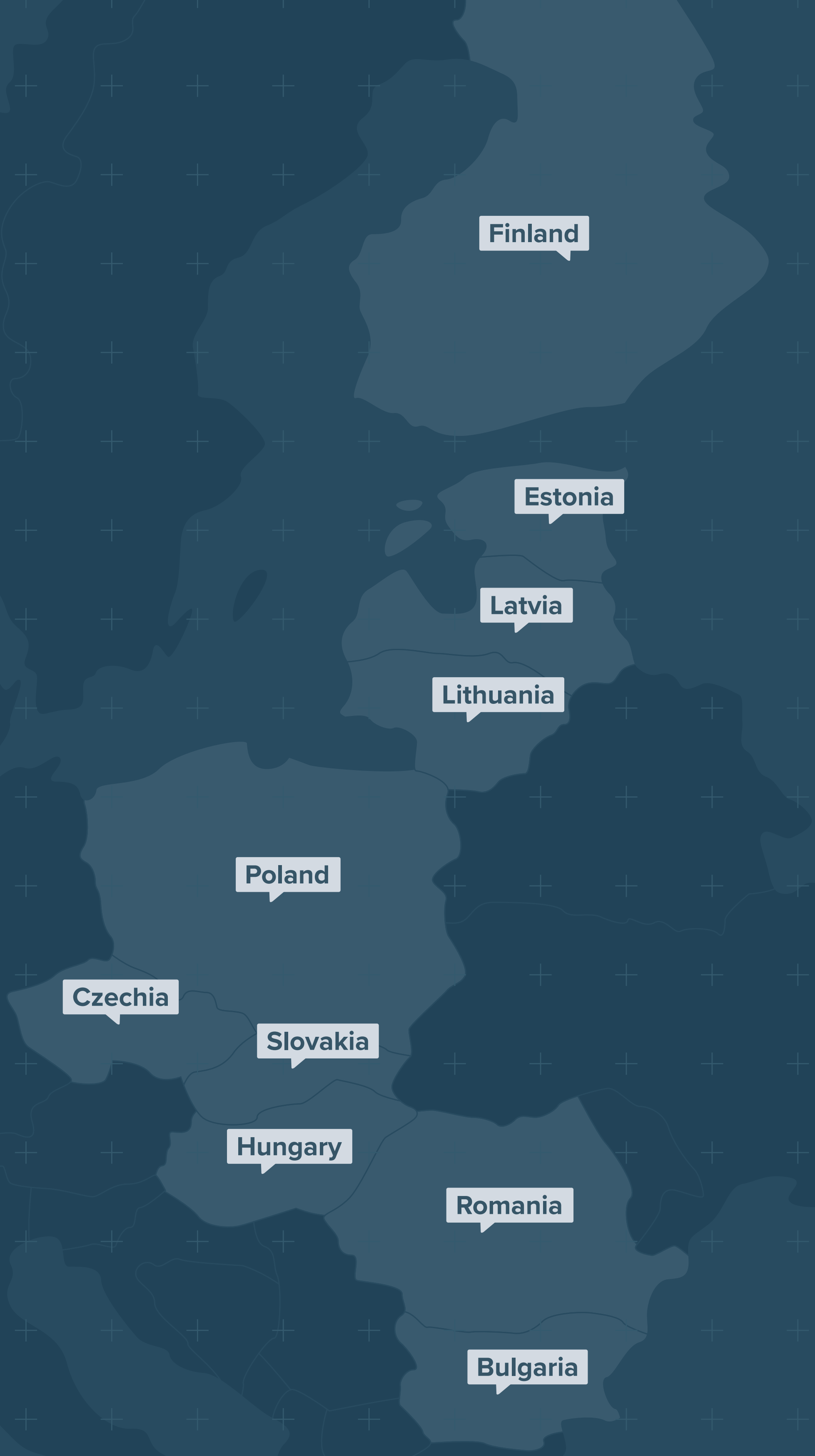


Throughout this report, the terms "Central and Eastern Europe (CEE)", "Eastern Flank", and "NATO's Eastern Flank" are used interchangeably.

For the purposes of this analysis, these terms refer to a defined group of nation-states located on NATO's eastern border, namely: Finland, Estonia, Latvia, Lithuania, Poland, Czechia, Slovakia, Hungary, Romania, and Bulgaria.

The use of different labels reflects established conventions in policy, academic, and institutional discourse rather than analytical variation. **All assessments in this report focus on national-level readiness, capabilities, political decision-making, and defence-industrial capacity within these selected countries,** not on NATO as an Alliance-wide actor unless explicitly stated.

References to "NATO's Eastern Flank" therefore describe **the strategic and planning context** in which these countries operate, while the analysis itself remains **state-centric** and grounded in national institutions, policies, and capabilities.

01 Executive Summary

Russia's full-scale **invasion of Ukraine has fundamentally altered the security environment of Europe** and transformed the strategic position of the states located along Europe's Eastern Flank.

For these countries, deterrence is no longer an abstract collective concept but a concrete national responsibility, exercised under conditions of geographic exposure, compressed warning times, and sustained hybrid pressure. While NATO provides the framework for collective defence planning, readiness on the Eastern Flank is generated primarily at the national level - through force posture, political decision-making, industrial capacity, and societal mobilisation.

This report assesses **how Eastern Flank nation-states generate, enable, and sustain readiness** within that framework, and where national structures strengthen or constrain deterrence credibility.

It does so through **three analytical pillars: military posture and operational preparedness (Pillar 1), political readiness and institutional decision-making (Pillar 2), and defence investment, funding mechanisms, and innovation (Pillar 3).** These pillars establish a baseline assessment of readiness, which is then examined in depth through thematic case studies focused on cyber preparedness, integrated air and missile defence, defence production capacity, national reserve systems, and lessons from Ukraine's wartime industrial adaptation.

Military Posture and Operational Readiness

Pillar 1

Eastern Flank states have moved decisively from reassurance toward operational deterrence since 2022. **National force structures have expanded, defence spending has surged, and forward presence has become denser and more capable.**

Countries such as Poland, the Baltic States, and Finland have accelerated force generation, expanded reserve systems, and invested heavily in modern platforms ranging from armoured formations to long-range fires.

However, the analysis demonstrates that force size and procurement alone are insufficient indicators of readiness. **The decisive differentiators across the region are mobilisation speed, reserve integration, sustainment capacity, and enabling infrastructure.** States with mature territorial defence and reserve systems—most notably Finland and the Baltic States—display greater depth and endurance in high-intensity conflict scenarios.

In contrast, several countries continue to face persistent constraints in logistics, ammunition stockpiles, maintenance capacity, and medical support, limiting their ability to sustain operations beyond the initial phase of a crisis.

Exercises increasingly reflect this shift toward readiness-focused deterrence. National and multinational drills now emphasise reinforcement, mobility, and multi-domain integration rather than symbolic presence. At the same time, exercises consistently expose recurring bottlenecks, particularly in sustainment, command resilience, and the integration of cyber and electronic warfare into conventional operations. Readiness remains uneven not because of insufficient political will, but because enabling systems have not kept pace with force expansion.

Political Readiness and Decision-Making Capacity

Pillar 2

Military readiness on the Eastern Flank is inseparable from political readiness. **National political systems determine whether military capabilities can be activated at the speed required under crisis conditions.**

Using the **Decision-Making Timelines Index (DMTI),** the report assesses how constitutional, legal, and institutional frameworks enable or constrain rapid authorisation of military movement, allied transit, and host-nation support.

The findings reveal stark variation across Eastern Flank states. Countries such as Finland, Estonia, and Poland benefit from pre-delegated crisis authorities, clear legal triggers, and durable cross-party consensus on defence. In these systems, democratic oversight and rapid decision-making are reconciled through institutional design, allowing governments to act within hours rather than days. This institutional speed significantly enhances deterrence credibility by reducing uncertainty for allies and adversaries alike.

By contrast, **states with parliament-centric or sequential authorisation frameworks face structurally longer timelines.** These constraints do not signal weak commitment to collective defence, but they do introduce friction into mobilisation and reinforcement processes. In fast-moving crisis scenarios, such delays can undermine deterrence by signalling hesitation or unpredictability. The report highlights that **institutional design** - rather than political intent - **is the primary variable shaping political readiness outcomes.**

Public trust and societal cohesion emerge as critical enabling factors. High confidence in armed forces and defence institutions expands governments' political space to sustain defence investment and act decisively under pressure. **Where trust is weaker or political polarisation is higher, readiness becomes more vulnerable** to domestic volatility and external influence operations.

Defence Investment, Funding, and Innovation

Pillar 3

Since 2022, the Eastern Flank has become Europe's fastest-growing defence investment zone. **Defence spending across Central and Eastern Europe has accelerated sharply, marking a structural break from the post-2014 period.**

Poland stands out as the largest contributor by scale, while Finland and the Baltic States demonstrate sustained, capability-focused investment trajectories. At the same time, several countries display more uneven patterns shaped by fiscal constraints and political cycles.

The report finds that **spending levels alone are a poor proxy for readiness.** In many states, personnel costs and legacy obligations continue to crowd out investment in infrastructure, stockpiles, and sustainment. Where investment has been more balanced, it has translated into tangible capability gains; where it has not, readiness remains brittle despite headline budget increases.

Innovation and industrial capacity are increasingly central to national readiness. Participation in EU instruments such as the European Defence Fund and NATO initiatives such as DIANA reveals a highly uneven landscape. Poland leads quantitatively, while Estonia and Latvia perform strongly relative to size, particularly in research intensity and coordination roles.

Several countries remain marginal participants due to administrative capacity constraints, fragmented industrial bases, or limited SME integration.

Cooperative frameworks are used primarily to strengthen enablers of deterrence—mobility, logistics, cyber resilience, and sustainment, rather than collective combat power generation. This reflects **a deliberate national choice to rely on NATO for high-end warfighting integration while using EU mechanisms to reinforce resilience and interoperability.** While efficient from a capability-development perspective, this model limits deterrence visibility and raises questions about scalability in prolonged conflict.

Thematic Deep Dives

Part II

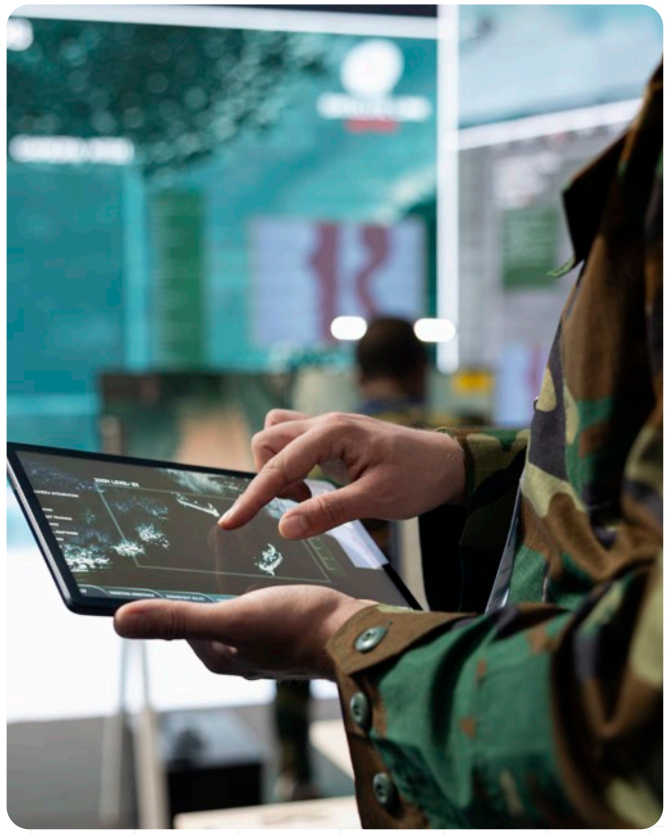
The thematic deep dives translate the baseline assessment into domain-specific insights.

The **cyber preparedness** analysis shows that Eastern Flank states face sustained, high-intensity cyber and hybrid pressure that often exceeds institutional capacity. Countries with integrated civil-military cyber ecosystems and strong public-private cooperation - such as Estonia and Finland - demonstrate greater resilience, while others rely heavily on formal strategies without sufficient operational depth.

The integrated air and missile defence (IAMD) analysis highlights both progress and persistent vulnerability. National investments since 2022 have densified air defence coverage, but fragmentation, interoperability gaps, and limited stockpiles remain major risks. Deterrence by denial depends not only on interceptor numbers, but on integration, sustainment, and resilience under saturation conditions.

The defence production capacity chapter shows that Eastern Flank states have shifted from being consumers of security to becoming critical producers within Europe's defence-industrial ecosystem. However, industrial expansion remains constrained by labour shortages, raw material dependencies, and long lead times. Current output is sufficient to support Ukraine but insufficient to rapidly replenish national stockpiles.

Case studies on **reserve and mobilisation models** demonstrate that societal integration is a decisive readiness multiplier. Finland's universal conscription, Lithuania's hybrid system, and Poland's voluntary preparedness model highlight different national pathways toward the same objective: maintaining trained reserves, rapid mobilisation capacity, and public support for defence. **Lessons from Ukraine's industrial adaptation** reinforce the importance of decentralisation, rapid innovation cycles, and continuous operational feedback.



Overall Assessment

Readiness on Europe's Eastern Flank is no longer primarily a question of political intent or alliance solidarity.

It is a function of how effectively nation-states align military capabilities, political institutions, industrial capacity, and societal resilience with the timelines assumed in collective defence planning. Significant progress has been made since 2022, but **readiness remains uneven and, in some cases, fragile.**

In a security environment defined by compressed decision timelines and sustained hybrid pressure, **gaps between political intent and operational readiness increasingly determine whether deterrence holds or fails.** Across the region, force expansion and higher defence spending have not always been matched by improvements in mobilisation speed, sustainment, decision-making agility, or industrial depth. Where these enabling systems lag, deterrence risks becoming declaratory rather than operational.

Eastern Flank states have demonstrated exceptional political resolve and investment momentum. The central challenge now is to **convert this momentum into durable, scalable readiness—one that can be sustained under prolonged pressure, activated without delay, and credibly communicated to adversaries.** The policy recommendations that follow translate these findings into actionable steps aimed at strengthening national readiness while reinforcing collective deterrence.

02 Policy Recommendations

Contents

Military Capabilities Build-up

Subchapter 01

01

Shift from rotational deterrence to a persistent, combat-ready posture on the Eastern Flank.

The report shows that NATO's post-2022 shift from battalion-sized rotational deployments toward brigade-level formations marks a qualitative change in deterrence credibility, particularly in the Baltic States and Poland. Permanent or semi-permanent forward presence, as exemplified by Germany's 45th Panzer Brigade in Lithuania and the Canadian-led brigade in Latvia, reduces reliance on crisis-time reinforcement and compresses response timelines. However, forward posture must be matched by pre-positioned equipment, hardened infrastructure, and integrated command structures. Without these enablers, forward forces risk remaining symbolically present but operationally fragile under high-intensity conflict conditions. This should be complemented by regionally coordinated multi-domain exercises that stress-test mobilisation, sustainment, and command under crisis conditions.

- **Transition rotational deployments into permanently stationed formations in Central and Eastern Europe.**
- **Pre-position critical equipment, harden infrastructure**

02

Build depth and sustainment alongside force expansion.

The readiness assessment demonstrates that high defence spending and force size do not automatically translate into combat effectiveness. Across Europe and especially on the Eastern border, mobilisation speed, reserve integration, ammunition stockpiles, and maintenance capacity areamong the decisive differentiators. Case studies of Finland, Poland, and the Baltic States highlight the value of well-resourced reserve systems and territorial defence structures in sustaining operations beyond the initial phase of conflict. The report also identifies persistent underinvestment in sustainment and logistics in several countries, risking rapid force exhaustion. Building depth and resilience is therefore as critical to deterrence as acquiring advanced platforms.

- **Balance investments in high-end platforms with increasing stockpiles, maintenance, repair capacity, medical support.**

Military Capabilities Build-up

Subchapter 01

03

Develop a regional, layered Integrated Air and Missile Defence (IAMD) architecture.

This report underscores that air and missile defence remains one of the most unevenly developed capabilities on NATO's Eastern Flank. While temporary deployments of Patriot and NASAMS systems have improved protection, these remain stopgap solutions. The report stresses the need for regionally integrated, interoperable IAMD architectures that pool sensors, interceptors, and command systems across national borders. Joint procurement and common training standards would reduce costs and improve readiness, while clear public communication is required to manage expectations, as IAMD can mitigate damage but cannot provide absolute protection .

- → **Move beyond nationally siloed air defence solutions toward interoperable multinational IAMD architecture.**
- → **Focus on joint planning and procurement and common training.**
- → **Conduct realistic public communication about air defence, explaining the capabilities and limits of protection.**

Cyber Capabilities

Subchapter 02

04

Integrate cyber and electronic warfare into core defence planning and force design.

Analysis of exercises and operational planning shows that cyber and electronic warfare are no longer niche capabilities but essential enablers across all domains. The report highlights vulnerabilities in civilian infrastructure, logistics networks, and command-and-control systems that could undermine mobilisation and reinforcement. The report recommends embedding cyber and EW capabilities into force structures, exercises, and procurement planning, ensuring that land, air, and maritime units can operate in contested, GPS-denied, and information-degraded environments. Without this integration, conventional superiority risks being neutralised by asymmetric cyber effects.

- → **Treat cyber, electronic warfare and counter-UAS capabilities as operational necessities for all domains**

05

Strengthen resilience against hybrid threats and cyber attacks.

The report finds that hybrid pressure—combining cyberattacks, disinformation, and economic coercion—targets societal cohesion as much as military capability. Countries with strong civil–military coordination and public cyber awareness, such as Estonia and Finland, demonstrate higher overall readiness. Establishing cyber reserves, improving information-sharing with the private sector, and educating the public on cyber hygiene are identified as cost-effective force multipliers. Aligning civilian and military cyber response mechanisms is particularly critical, as transport, energy, and communications infrastructure are prime targets during pre-crisis escalation phases.

- → **Expand public cyber awareness programmes to increase public understanding of the threat and risks, to reduce societal vulnerability and create a basis for political support of critical political decisions.**

Political Aspects

Subchapter 03

06

Accelerate political decision-making through pre-delegated crisis authorities.

The Decision-Making Timelines Index (DMTI) reveals stark differences in how quickly Eastern Flank states can authorise military action, allied transit, and host-nation support. Countries rated “rapid,” notably Finland, Estonia, and Poland, benefit from pre-delegated executive authorities and clearly defined emergency triggers. In contrast, parliament-centric systems introduce delays that complicate NATO reinforcement timelines. The report stresses that institutional speed, not political intent, is the key variable. Reforming legal frameworks to allow immediate action—while preserving democratic oversight—is essential for credible deterrence.

→Solidify constitutional, legal, and procedural frameworks through pre-delegated authorities to allow rapid activation of national and allied forces, host-nation support, and military mobility during crises, reducing reliance on ad hoc political decisions under time pressure.

07

Institutionalise national consensus on defence readiness.

Political readiness analysis shows that durable cross-party consensus on defence policy is a critical enabler of sustained investment and rapid crisis response. The Baltic States and Poland demonstrate how broad societal and parliamentary alignment insulates defence policy from electoral volatility. By contrast, politicised defence debates in some countries introduce uncertainty into collective defence planning.

→Introduce formal parliamentary agreements or national security compacts that lock in core defence commitments, ensure continuity in spending, force posture, and allied cooperation regardless of changes in government.

Defence Spending and Innovation

Subchapter 04

08

Reframe defence spending targets around readiness outcomes rather than inputs.

While defence expenditure has surged across the Eastern Flank since 2022, the report demonstrates that spending levels alone are an insufficient factor for increased readiness. Personnel-heavy budgets and legacy costs continue to crowd out investment in enablers such as infrastructure, stockpiles, and sustainment. The analysis calls for readiness-focused metrics—deployability, mobilisation speed, and sustainment capacity—to complement GDP-based benchmarks. This shift would improve transparency and help policymakers assess whether financial inputs translate into usable military output under NATO’s regional defence plans.

→Complement GDP-based spending benchmarks with deployability, mobilisation speed, sustainment capacity, and stockpile adequacy indicators

09

Institutionalise rapid innovation cycles linked to operational feedback.

Lessons from Ukraine and NATO exercises underline that modern warfare rewards speed, adaptability, and attritable systems. The report finds that traditional procurement timelines are poorly suited to this environment, particularly for drones, counter-UAS, and digital systems. Embedding structured feedback loops from exercises and real-world operations into procurement processes is therefore essential. EU and NATO innovation instruments, including the EDF and DIANA, should prioritise rapid prototyping and scaling of proven solutions rather than disconnected research efforts.

→Adjust procurement legislation and procedures to allow active engagement with the industry during the whole process, not just a one-way provision of information before selection.
→Expand NATO DIANA´s Rapid Adoption Service

Industry Scale-Up

Subchapter 05

10

Treat defence industrial capacity as a core component of deterrence.

The analysis identifies industrial bottlenecks—labour shortages, regulatory delays, and limited surge capacity—as critical readiness risks. Ammunition production, in particular, lags behind operational demand assumptions. The report argues that industrial readiness should be treated as a strategic capability, not merely an economic sector. National production readiness plans, supported by predictable demand and energy security, are required to ensure that forces can be sustained during prolonged conflict rather than relying on fragile just-in-time supply chains.

- **→Develop national and regional defence production readiness plans.**
- **→Support programmes for increased availability of skilled labour.**
- **→Introduce clear mechanisms for collection of statistical data on the defence industry to support planning and decisions on national and EU level.**

11

Provide long-term demand signals through coordinated, multi-year procurement.

Fragmented national procurement remains a structural weakness across Europe. The report shows that in Central and Eastern Europe, but also in Europe as a whole, industry investment decisions depend on predictable, multi-year contracts rather than annual budget cycles. Coordinated multinational procurement—particularly for ammunition, air defence interceptors, and spare parts—would reduce costs, improve interoperability, and incentivise capacity expansion. Poland's scale currently dominates regional investment, but greater participation by mid-sized Allies is necessary to avoid strategic over-reliance on a single contributor.

- **→Expand multi-year, multinational framework contracts and joint procurement to reduce fragmentation.**
- **→Incentivise investment in scalable manufacturing.**
- **→Incentivise investment in scalable manufacturing.**

Role of the European Union

Subchapter 06

12

Align European-level efforts with collective defence requirements.

The analysis highlights the growing importance of EU instruments such as the European Defence Fund, SAFE, and military mobility funding. A critical factor will be keeping the closest possible alignment with NATO priorities to prevent inefficiencies. This alignment is particularly critical for non-EU NATO members, whose participation remains essential for European collective defence credibility.

- **→Ensure coherence between EU funding tools (EDF, EDIP, SAFE, military mobility instruments) and NATO defence planning.**

13

Make military mobility and dual-use infrastructure a strategic EU priority.

Military mobility emerges as one of the most consistently stressed enablers in exercises and real-world planning. Despite progress through EU-funded corridors and infrastructure upgrades, legal and physical bottlenecks persist. Mobility should be treated as a combat enabler, not a logistical afterthought.

- **→Accelerate the creation of a "Military Schengen," including harmonised permitting, pre-approved routes, and investment in bridges, rail, ports, and airfields capable of supporting heavy forces.**

Role of the European Union

Subchapter 06

14

Use the EU as a force multiplier for societal and industrial resilience.

Beyond military capabilities, the report emphasises the EU's role in strengthening resilience against hybrid threats. Coordinated action on supply-chain security, workforce development, energy resilience, and civil–military integration can significantly enhance national readiness. By linking defence, industrial, and civil protection policies, the EU can amplify national efforts and reduce vulnerabilities that adversaries exploit below the threshold of armed conflict. This whole-of-society approach is essential for sustaining deterrence over time.

→ **Leverage EU-level coordination and funding to protect critical supply chains, expand defence-industrial labour pools, integrate civilian infrastructure into defence planning, and strengthen resilience against economic, cyber, and informational coercion.**

03 Introduction

01. The Evolving Security Landscape

Over the past decade, Europe's eastern security environment has undergone a fundamental transformation. What was once treated as a peripheral zone of reassurance has become the primary theatre where deterrence credibility is tested in practice. Since Russia's illegal annexation of Crimea in 2014 - and especially following the full-scale invasion of Ukraine in 2022 - countries on Europe's eastern flank have shifted from limited forward presence toward more persistent, defence-oriented postures.

This transformation is unfolding under continuous pressure. Russia's sustained hybrid, covert, and kinetic activities challenge stability below the threshold of open conflict, while the enlargement of NATO to include Finland and Sweden has reshaped the northern security map, linking the Baltic and Arctic regions into a single strategic space.

As a result, Eastern Flank countries now occupy a central role in Europe's collective defence architecture. At the same time, new regional defence plans adopted at the 2023 Vilnius Summit have introduced unprecedented operational clarity.

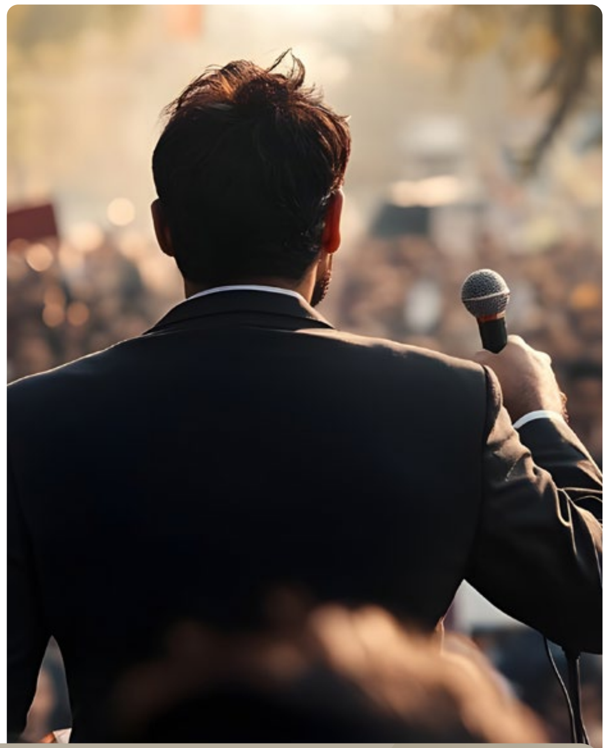
These plans define concrete roles, force requirements, and timelines that assume rapid mobilisation, cross-border movement, and sustained operations. Yet implementation across the Eastern Flank remains uneven. Infrastructure gaps, industrial bottlenecks, and political decision-making constraints persist, raising a practical question:

"How ready are we, in practice, to deter and respond?"

02. Why a Readiness Assessment?

Readiness is the operational expression of deterrence. While Eastern Flank countries have significantly increased defence spending, expanded force posture, and accelerated procurement since 2022, the relationship between these inputs and real-world preparedness remains unclear. Financial commitments and political declarations do not automatically translate into deployable forces, resilient enablers, or sustained operational capacity under crisis conditions.

Despite the growing availability of open data, there is no publicly accessible, comparative assessment that systematically evaluates readiness across the Eastern Flank. Existing public analyses tend to focus on expenditure levels or procurement announcements, while operational readiness indicators—such as mobilisation capacity, political enablement, military mobility, and industrial resilience—are either assessed in isolation or remain partially opaque.



The Annual (Eastern Flank) Battle Readiness Report addresses this gap by providing an independent, evidence-based assessment of how national systems on the Eastern Flank translate ambition into readiness. Rather than measuring alliance performance as such, the report evaluates whether national military, political, industrial, and societal structures are capable of delivering the speed, scale, and resilience assumed in collective defence planning.

03. About the Report

This publication is developed under the **Future Security and Defence Council (FSDC)** — GLOBSEC's high-level transatlantic platform dedicated to advancing readiness, resilience, and innovation across Europe's security landscape. Bringing together policymakers, industry leaders, and defence and military experts, the FSDC provides a forum for structured dialogue on future-oriented defence policy.

The **Annual Battle Readiness on the Eastern Flank Report** is conceived as a flagship analytical product of the FSDC:

- → For policymakers, it offers a comparative, year-on-year reference point to identify strengths, weaknesses, and structural gaps across the Eastern Flank.
- → For industry, it highlights where capability shortfalls, production constraints, and innovation deficits most directly affect readiness outcomes.

The report is grounded in a simple premise: credible collective defence depends on national readiness that can be demonstrated, tested, and sustained. Using open-source data, expert input, and comparative analysis, it provides a transparent benchmark designed to complement - rather than replicate - classified institutional assessments.

04. Scope and Limitations

The report combines quantitative and qualitative analysis drawn from publicly available sources, national publications, and expert interviews. Where data remain classified - such as stockpile levels, detailed deployment timelines, or elements of operational posture - the analysis relies on triangulation using open-source intelligence (OSINT) and expert validation.

The assessment covers countries on Europe's eastern flank from the Baltic to the Black Sea, with a focus on deterrence-relevant readiness factors including force posture, mobilisation capacity, political decision-making, military mobility, defence industry performance, and societal resilience. It does not attempt to assess alliance-level command performance or replace official reporting. Instead, it provides a comparative, public-facing evaluation of national readiness as the foundation of collective defence.

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04 Methodology and Data Sources

To ensure consistency and comparability across countries and over time, **the report applies a structured methodology that translates diverse indicators into policy-relevant insight.** The following section explains how readiness is defined, measured, and validated within the limits of open-source analysis.

Methodological Rationale and Scope

This report assesses **national readiness on Europe's Eastern Flank** as the foundational layer of collective defence. While collective defence planning provides the strategic reference point, readiness is generated (and constrained) at the national level through political decision-making, force generation, infrastructure, industrial capacity, and societal resilience.

Accordingly, the unit of analysis throughout this report is **the nation-state,** not alliance-level structures or command performance. The methodology is designed to evaluate whether national systems are capable of delivering the speed, scale, and resilience assumed in collective defence planning.

The report does not include Western European or Southern European allies whose readiness dynamics, geographic exposure, and operational roles differ structurally from those of the Eastern Flank.

The assessment focuses on ten countries located on Europe's Eastern Flank. **These countries were selected based on four criteria:**

01. Geographic exposure

Each country plays a defined role in regional defence planning - either as a frontline state, a transit and staging area, or a logistics and industrial hub supporting forward operations.

02. Operational relevance

Each country plays a defined role in regional defence planning - either as a frontline state, a transit and staging area, or a logistics and industrial hub supporting forward operations.

03. Comparability of obligations

All ten countries operate under comparable collective defence assumptions, including requirements related to force availability, host-nation support, military mobility, and political decision-making under compressed timelines.

04. Data availability and consistency

All ten countries operate under comparable collective defence assumptions, including requirements related to force availability, host-nation support, military mobility, and political decision-making under compressed timelines.

Methodological Approach

Readiness is treated as a multidimensional condition, not a single metric. **The methodology therefore combines three analytical layers:**

Quantitative indicators

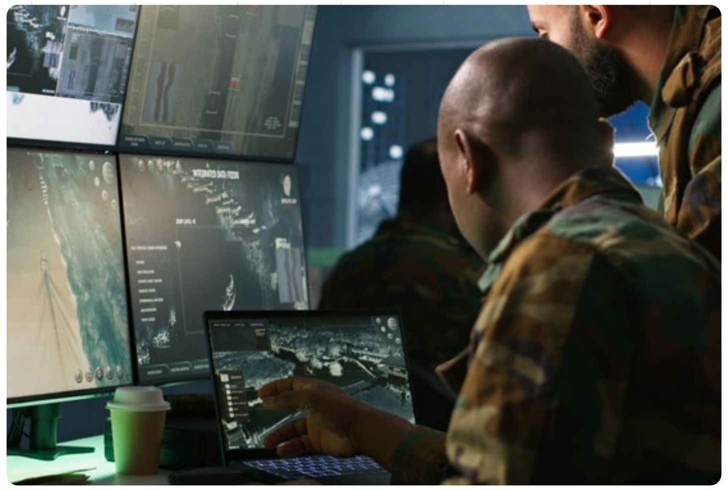
Standardised, verifiable metrics that allow comparison across countries and over time (e.g. defence expenditure structure, force size, mobilisation frameworks, military mobility infrastructure, participation in exercises).

Analytical case studies

Focused examinations of how readiness functions in practice, including defence industry performance, reserve systems, cyber preparedness, air and missile defence, and lessons derived from the war in Ukraine.

Institutional and political assessment

Qualitative evaluation of governance structures, decision-making speed, legal enablement, and political cohesion that influence whether military capabilities can be activated when required.



This mixed-method approach allows the report to move beyond inputs and intentions, focusing instead on **outputs and enabling conditions.**

Data sources

The analysis relies exclusively on open and verifiable sources, cross-checked across institutional and independent datasets:

Military and financial data:

NATO Defence Expenditure Database, SIPRI Military Expenditure and Arms Transfers, IISS Military Balance 2025, European Defence Agency, national defence strategies and white papers.

Political and societal data

GLOBSEC Trends, Eurobarometer, constitutional provisions, national defence legislation, and public-opinion surveys.

Industrial and procurement data:

European Defence Fund (EDF) project data, EU and national procurement disclosures, SAFE and EIB financing mechanisms, NATO contracting information, and industry reporting.

Supplementary analysis:

RAND, CSIS, Chatham House, CEPA, NATO Parliamentary Assembly, and peer-reviewed academic research.

Where official information is classified or inconsistently reported, **proxy indicators are used and validated through expert consultation.**

05 Analytical Framework

The report's analytical framework is structured around **three comparative pillars,** complemented by a set of **thematic deep dives** that provide focused, cross-cutting analysis of readiness enablers and constraints that cannot be fully captured through pillar-level comparison alone.

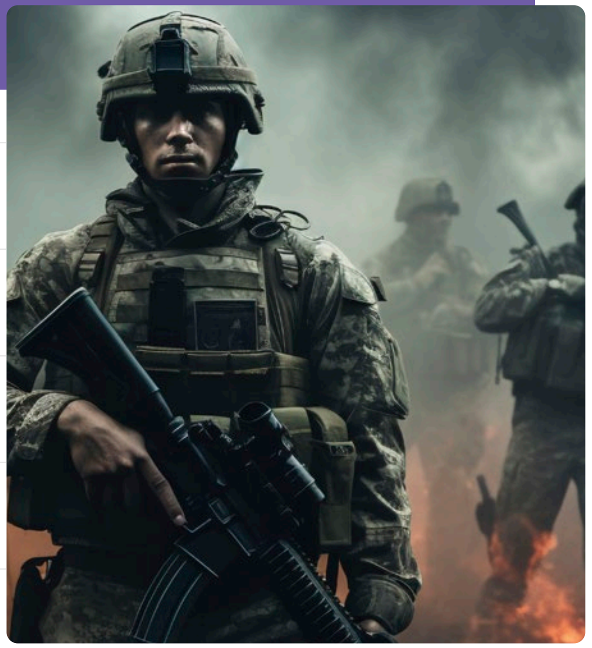
Comparative Pillars form the core comparative assessment of national readiness on Europe's Eastern Flank.

Pillar 1

Military Deterrence, Defence Posture, and Strategic

This pillar assesses military deterrence on Europe's Eastern Flank by examining how national defence systems generate, posture, deploy, and sustain forces across **conventional, multi-domain, and strategic contexts.** The analysis covers defence posture and allied forward presence, national force readiness and mobilisation capacity, key platforms and multi-domain enablers, large-scale exercises, and military mobility.

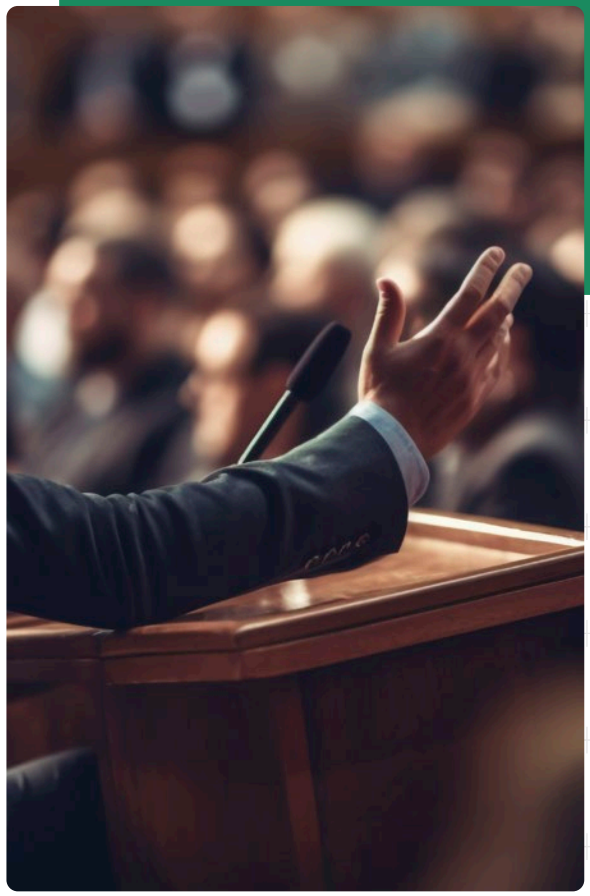
Nuclear deterrence is addressed **as a factor shaping readiness, escalation management, and political signalling,** rather than as a capability under direct assessment. The pillar therefore evaluates how national posture, integration, and decision-making contribute to deterrence credibility across the escalation spectrum.



Pillar 2

Political Aspects of Readiness

This pillar evaluates the political and institutional conditions that enable or constrain military action, including decision-making speed, legal and constitutional frameworks, parliamentary oversight, civil–military relations, public trust, and societal resilience under crisis conditions.



Pillar 3

Defence Spending, Funding Schemes, and Innovation

This pillar examines how financial inputs translate into usable military capability. It assesses defence expenditure patterns, procurement effectiveness, industrial capacity, multinational funding mechanisms, and innovation ecosystems relevant to medium- and long-term readiness.

Part II

Thematic Deep Dives

To address these dimensions, the report includes five thematic deep dives, each selected based on its direct relevance to deterrence credibility, its cross-cutting impact on multiple pillars, and the availability of sufficiently robust open-source and expert data to support in-depth analysis:

Cyber preparedness on NATO's Eastern flank: Evaluating threats and vulnerabilities
By Anushka Kaushik

Defending the Skies over the Eastern Flank in 2025 : IAMD in Spotlight
By Tomáš Nagy

Defence Production Capacity on NATO's Eastern Flank
By Martin Sklenár

National Defence and Reserve Systems in Finland, Poland, and Lithuania
By Dominika Nagyová

Lessons learned from Ukraine: An Industry perspective
By Federica Mangiameli

Methodologically, these deep dives translate comparative pillar findings into operational and policy-relevant insight, identify structural bottlenecks that cut across national boundaries, and explore readiness dynamics that are either insufficiently comparable or too complex to be reduced to quantitative indicators. Together with the three pillars, they form an integrated analytical framework linking national readiness, collective deterrence requirements, and long-term capability development.

Validation and Limitations

The methodology deliberately prioritises transparency and comparability. As a result:

- Certain operational details (e.g. exact stockpile levels, classified deployment timelines) remain beyond scope.
- The assessment reflects **structural readiness**, not political intent or hypothetical wartime performance.

The report is designed to **complement**, not replace, classified institutional assessments by translating open-source information into a shared analytical baseline.

From Data to Policy Insight

The objective of this methodological framework is pragmatic: to provide policymakers, defence planners, and industry stakeholders with a **shared evidence base** for identifying readiness gaps and prioritising corrective action.

By applying consistent criteria across ten Eastern Flank countries and repeating the assessment annually, the report enables tracking of progress, identification of persistent bottlenecks, and informed debate on how national readiness contributes to collective defence credibility.

06 Pillar 01

Military Deterrence, Defence Posture, and Strategic Enablers

Pillar 1 assesses whether national military systems on Europe's Eastern Flank are capable of generating, deploying, and sustaining combat power within the timelines assumed by collective defence planning. While alliance-level plans provide the strategic reference point, readiness is produced primarily at the national level through force posture, mobilisation capacity, readiness mechanisms, enabling capabilities, and military mobility infrastructure.

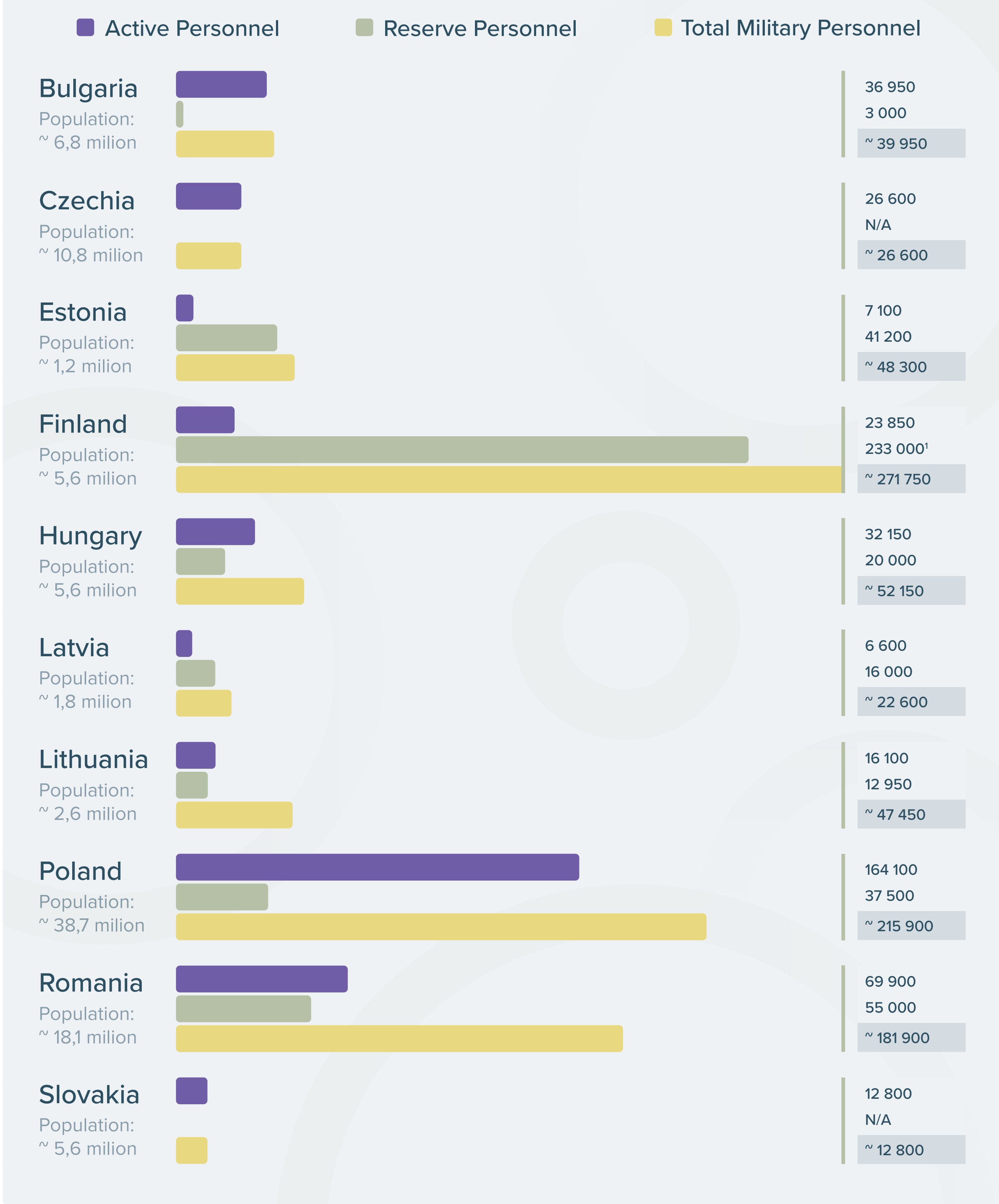
The pillar focuses on conventional deterrence, while situating it within a broader multi-domain operating environment. Nuclear deterrence is treated as a structural condition shaping readiness requirements and escalation dynamics rather than as a capability under direct assessment.

Accordingly, the analysis does not evaluate nuclear forces or classified operational plans, but examines how national force posture, integration, and readiness enablers contribute to deterrence credibility across the escalation spectrum.

National Force Readiness and Mobilization Capacity

Active Personnel and Reserves by Country

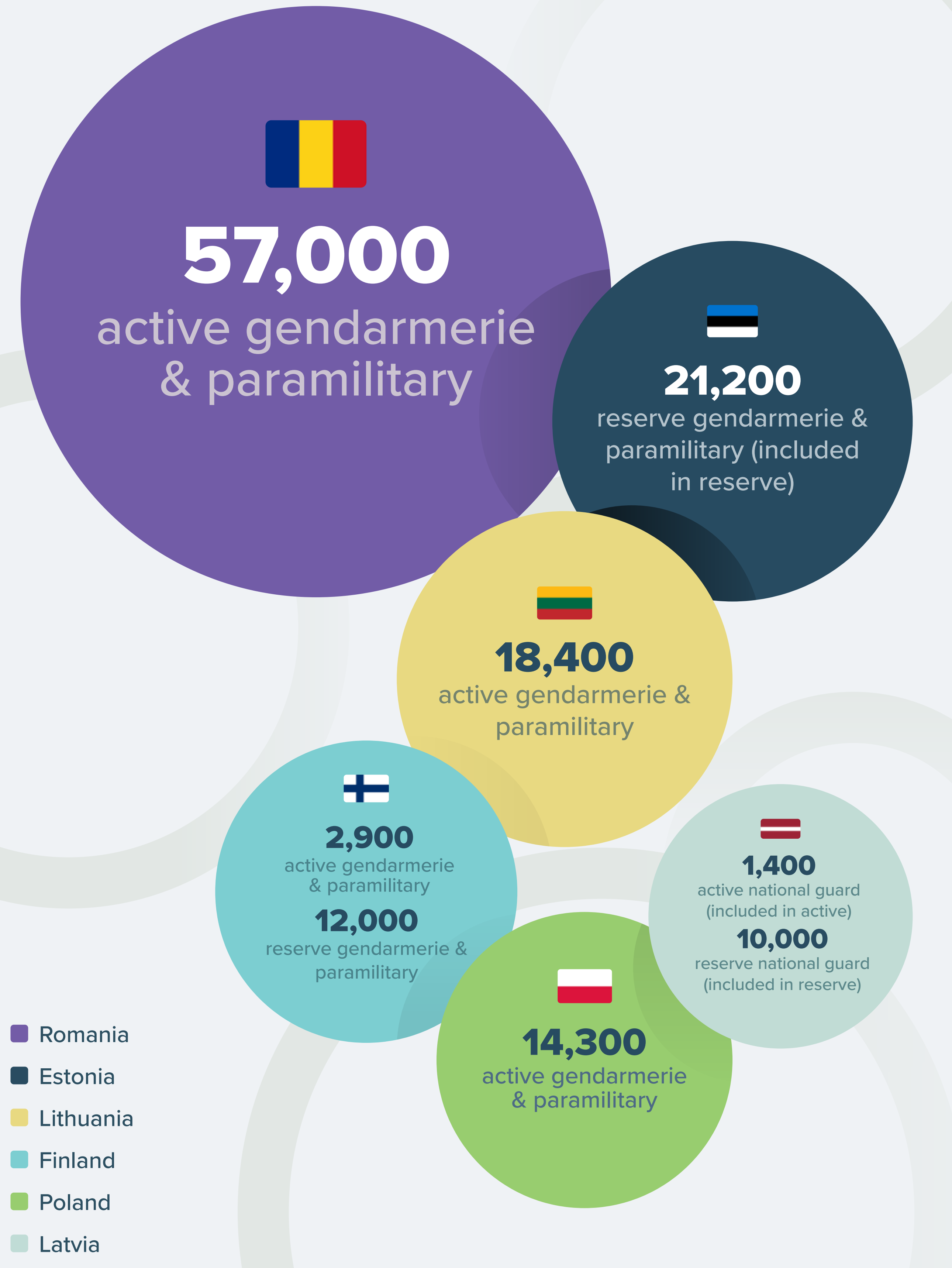
Source: Military Balance 2025



1 Military Balance 2025 lists 233,000 reserve personnel, however, acording to the Finnish Defence Forces, their reserve comprises approximately 900,000 Finnish citizens (https://intti.fi/en/in-the-reserve)

Paramilitary/National Guard by Country

Source: Military Balance 2025



Armed Forces Structure by Service Branch

Source: Military Balance 2025

	Land Forces	Naval Forces	Air Force	Other
Bulgaria	17 000	4 450	8 500	7 000 (Central Staff)
Czechia	14 700	N/A (landlocked)	5 850	6 050
Estonia	3 750[2]	450	400	2 500
Finland	17 400[3]	3 150	3 300	-
Hungary	10 450	N/A (landlocked)	5 750	15 950 (Joint)
Latvia	1 500	500	500	2 400 (Joint) 300 (Other)
Lithuania	10 250	800	1 850	3200 (Other)
Poland	90 600	6 450	18 850	3 400 (Special Forces) 5 300 (Territorial) 39 500 (Joint)
Romania	35 500	5 200	11 700	17 500 (Joint)
Slovakia	5 350	N/A (landlocked)	4 550	800 (Special Forces) 2 100 (Central Staff)

2 Including 2,450 conscripts

3 Including 13,000 conscripts

As shown in **Table 1**, Eastern Flank countries display wide variation in force size, composition, and mobilisation depth. These differences shape not only national defence capacity but also the speed and scale at which forces can be generated for collective defence.

Poland is the dominant military contributor in the region. It fields approximately **164,100 active personnel**, supported by **37,500 reservists** and an additional **14,300 paramilitary and national guard forces**, resulting in a total military manpower of roughly **215,900 personnel**. This force structure reflects Poland's role as NATO's principal land-power anchor on the Eastern Flank and underpins its central role in regional deterrence and reinforcement planning.

Poland's force expansion is supported by record defence spending. Defence expenditure reached **4.12 percent of GDP in 2024**, the highest level among NATO members, with projections rising to **4.7 percent in 2025**, equivalent to approximately **USD 45 billion annually**.[4] This funding enables large-scale force modernisation, including armoured divisions, territorial defence formations, and layered air and missile defence systems aligned with eastern deterrence requirements.[5]

Romania represents the second-largest force structure in the region. It maintains approximately **69,900 active personnel**, **55,000 reservists**, and a substantial **57,000-strong internal-security gendarmerie and paramilitary component**, bringing total military manpower to around **181,900 personnel**. This scale provides Romania with significant national defence capacity and positions it as a key contributor to NATO's deterrence and reinforcement posture along the Black Sea axis.

The Baltic states demonstrate high force-generation efficiency relative to population size. **Estonia** fields approximately **7,100 active personnel**, supported by **41,200 reservists**, resulting in a total military force of roughly **48,300 personnel**, with paramilitary and volunteer formations included within the reserve structure. **Latvia** maintains **6,600 active personnel** and **16,000 reservists**, including National Guard elements integrated into both categories, for a total force of approximately **22,600 personnel**. **Lithuania** fields **16,100 active personnel**, **12,950 reservists**, and an additional **18,400 paramilitary forces**, resulting in total manpower of around **47,450 personnel**.

These force structures are reinforced by sustained defence investment. **Estonia allocated 3.43 percent of GDP to defence in 2024**, while **Latvia spent 3.15 percent**, with both countries exceeding NATO's 2-percent benchmark consistently since 2023.[6] These investments support modernisation programmes and conscription-based mobilisation frameworks designed to enable rapid wartime force expansion.

Estonia has maintained uninterrupted conscription since 1991, with approximately **4,000 recruits annually** completing eight- or eleven-month service cycles—up from **3,500 in 2023**—to sustain and expand its reserve base.[7] Latvia reintroduced conscription in 2022 through a mandatory national service system, conducting its first voluntary intake in 2023 with **500 conscripts**, followed by a lottery-based selection of approximately **600 candidates in 2024**.[8]

Lithuania faces tighter demographic constraints but sustains substantial territorial defence capacity. Of its **12,950 reservists**, approximately **5,850 personnel serve within the National Defence Volunteer Forces**, providing a key component of Lithuania's territorial defence and mobilisation posture.[9]

Across the Baltic states, territorial and volunteer defence components often rival or exceed regular units in size. Estonia's **Kaitseliit (Defence League)** alone includes over **15,000 of the 41,200 reservists**, while affiliated organisations raise total volunteer participation **within this reserve pool** to more than **20,000 personnel**, including women's and youth formations. These forces conduct regular training and territorial surveillance, providing depth and persistence beyond standing forces. Collectively, Baltic territorial defence models closely resemble Finland's long-standing comprehensive defence approach, which the Baltic states are increasingly emulating.

Beyond manpower, several countries have reinforced readiness through permanent defensive infrastructure. Poland's **"East Shield" programme**, announced in May 2024, represents the most extensive territorial fortification initiative on the Eastern Flank. Valued at **PLN 10 billion (approximately EUR 2.3 billion)** and scheduled for completion by 2028, the programme encompasses hardened fortifications, physical barriers, and advanced airspace monitoring systems along Poland's borders with Belarus and Russia's Kaliningrad exclave.[10]

The fortifications extend across **Podlasie, Lublin, Warmia–Masuria, and parts of the Masovia voivodeships**, aiming to enhance border security, protect civilian populations, improve troop mobility, reduce vulnerability to surprise attack, and impede hostile force penetration into Polish territory. This initiative complements the **Baltic Defence Line**, announced in 2024, which

4 Wilson Center, "'Security, Europe!': Poland's Rise as NATO's Defense Spending Leader," November 2024, https://www.wilsoncenter.org/article/security-europe-polands-rise-natos-defense-spending-leader.

5 House of Commons Library, "NATO: Reinforcing its eastern flank," August 11, 2025, https://commonslibraryparliament.uk/research-briefings/cbp-9450/.

6 Economics Insider, "NATO Defense Spending as a share of GDP in 2024," July 17, 2025, https://economicsinsider.com/nato-defense-spending/.

7 OSW Centre for Eastern Studies, "On the warpath: the development and modernisation of the Baltic states' armed forces," June 6, 2024, https://www.osw.waw.pl/en/publikacje/osw-commentary/2024-05-10/warpath-development-and-modernisation-baltic-states-armed

8 Ministry of Defence announces the second round of state defence service draft | Aizsardzības ministrija

9 Land force | Lithuanian army

10 Pulaski Foundation, "NATO's Eastern Flank Response to the Russian Threat: Poland's 'East' Shield Programme," August 29, 2024, https://pulaski.pl/en/natos-eastern-flank-response-to-the-russian-threat-polands-east-shield-programme-and-the-defence-concepts-of-the-baltic-states-and-finland/.

establishes a coordinated defensive infrastructure network across Estonia, Latvia, and Lithuania, creating a continuous fortified architecture along NATO's and the EU's eastern frontier.[11]

Taken together, these developments indicate a substantial strengthening of national force generation and mobilisation capacity across the Eastern Flank. However, readiness outcomes remain uneven. High defence spending and large force structures do not automatically translate into rapid deployability or sustained combat effectiveness. The speed at which reserves can be mobilised, equipped, and integrated into active formations remains a critical differentiator across countries—directly conditioning the effectiveness of forward posture and reinforcement plans.

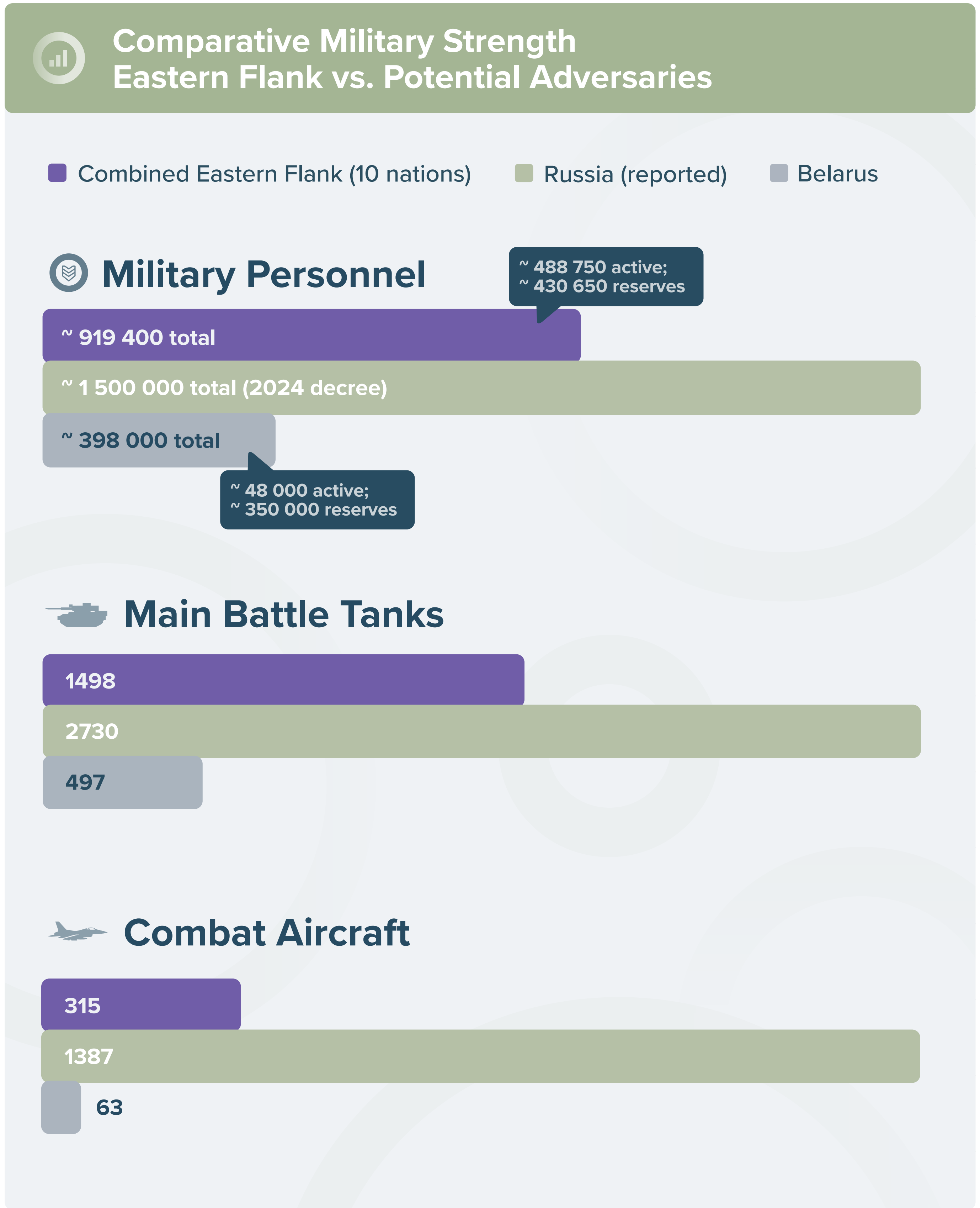
Key Platforms and Capability Integration

Major Combat Equipment (National Forces Only)

- Main Battle Tanks
- Infantry Fighting Vehicles
- Artillery (Self-Propelled)
- Multiple Rocket Launchers
- Combat Aircraft
- Attack Helicopters

Country	Main Battle Tanks	Infantry Fighting Vehicles	Artillery (Self-Propelled)	Multiple Rocket Launchers	Combat Aircraft	Attack Helicopters
Bulgaria	90	160	176	24	26	6
Czechia	44	227	96	N/A	38	14
Estonia	0	44	18	N/A	0	0
Finland	200	212	122	75	89	0
Hungary	80	131	23	0	14	8
Latvia	0	0	47	6	0	0
Lithuania	0	91	16	0	0	0
Poland	662	1525	451	199	85	16
Romania	377	265	40	206	53	23
Slovakia	45	181	29	28	10	0

11 Atlantic Council, "How NATO's eastern flank is setting the standard for collective defense," June 5, 2025, https://www.atlanticcouncil.org/blogs/new-atlanticist/how-natos-eastern-flank-is-setting-the-standard-for-collective-defense



Eastern Flank countries have accelerated the procurement of major combat platforms since 2014, with a marked intensification after 2022. As shown in **Table 3**, this has resulted in a substantial increase in national inventories of armoured vehicles, artillery, rocket systems, combat aircraft, and attack helicopters. However, aggregate numbers alone do not determine readiness. Operational effectiveness increasingly depends on how these platforms are integrated into enabling architectures, including command and control, air and missile defence, sustainment systems, trained personnel pipelines, and multinational interoperability frameworks.

At the aggregate level, **Table 4** highlights both the scale and the limits of this build-up. Across the ten Eastern Flank nations, combined forces field approximately **1,498 main battle tanks** and **315 combat aircraft**, supported by roughly **489,000 active personnel** and **431,000 reservists**. While this represents a significant conventional force, it remains quantitatively inferior to Russia's reported inventory—particularly in combat aircraft—and underscores the continued importance of integration, reinforcement, and alliance-level enablers rather than numerical parity alone.

Poland's acquisition trajectory illustrates the most comprehensive approach to capability integration in the region. With **662 main battle tanks**, **1,525 infantry fighting vehicles**, **451 self-propelled artillery systems**, and **199 multiple rocket launchers**, Poland accounts for a disproportionate share of the Eastern Flank's heavy combat power (Table 3). The acquisition of **HIMARS launchers beginning in 2019**, followed by additional orders, anchors Poland within U.S.-led deep-strike architectures and significantly enhances its long-range fires capability. Poland is also set to become the world's second-largest operator of **AH-64E Apache Guardian** attack helicopters, with the first aircraft delivered to the 12th Combat Aviation Brigade in September 2024.[12] The Apache package—combining advanced sensors, mission software, and precision weapons—strengthens Poland's ability to conduct high-intensity manoeuvre and integrated fires in support of NATO operations.

Several other Eastern Flank countries are pursuing more targeted but interoperable capability paths. **Romania**, which fields **377 main battle tanks** and **206 multiple rocket launchers**, was the first European country to receive HIMARS in 2021. Subsequent U.S. State Department approvals enabled HIMARS acquisitions for **Estonia, Latvia, and Lithuania** in 2022. Estonia's **six launchers**, delivered in April 2024, provide strike ranges exceeding **400 kilometres**, while Lithuania's **eight launchers**, scheduled for delivery by 2026, will offer comparable reach.[13] These systems are embedded within the **European HIMARS Initiative (EHI)** led by U.S. V Corps, which conducts recurring multinational exercises across Poland, Germany, Romania, and the Baltic States to improve interoperability, operational planning, and sustainment.[14]

12 U.S. Army, "V Corps Soldiers, NATO partners protect eastern flank."
13 Atlantic Council, "How NATO's eastern flank is setting the standard for collective defense."
14 U.S. Army, "V Corps Soldiers, NATO partners protect eastern flank."

Despite these advances in long-range fires and manoeuvre platforms, **air and missile defence remains one of the most unevenly developed capability areas** across the Eastern Flank. As reflected in Table 3, several frontline states—particularly the Baltic countries—field minimal or no combat aircraft and rely heavily on allied air power. NATO's **Baltic Air Policing mission** maintains rotational deployments of approximately **eight fighter aircraft at Šiauliai Air Base** in Lithuania and **four at Ämari Air Base** in Estonia (temporarily operating from Lielvārde, Latvia during infrastructure upgrades). Temporary deployments of medium-range systems, such as **Germany's Patriot batteries in Lithuania in summer 2023** and **Spain's NASAMS deployment to Latvia since June 2022**, have partially mitigated these gaps but remain **stopgap measures rather than permanent solutions**.[15]

Multinational battlegroups increasingly demonstrate how platform integration is evolving from symbolic presence toward **capability-dense force packages**. Canada's battlegroup in Latvia provides a representative example. By 2025, Canadian forces expanded to approximately **2,200 personnel**, with plans to reach **2,600**, up from the initial **540-strong mechanised infantry contingent**. This expansion includes **four Griffon helicopters** deployed from summer 2024, periodic augmentation with **Chinook helicopters** from autumn 2025, the introduction of **Spike anti-armour missile systems** from mid-2024, **medium-range radar capabilities** supporting air defence, and **15 Leopard 2A4M main battle tanks** operated by approximately **130 personnel**, deployed by spring 2024. Rather than isolated platforms, these elements form an integrated combined-arms package aligned with NATO's forward defence concept.

Taken together, the data in Tables 3 and 4 indicate a clear transition across the Eastern Flank from limited, reassurance-oriented force structures toward **heavier, more lethal national inventories** embedded within allied frameworks. However, integration challenges persist. Advanced platforms impose significant demands on training pipelines, maintenance capacity, ammunition stockpiles, and digital interoperability. In several countries, the pace of platform acquisition is now **outstripping the availability of qualified personnel, sustainment infrastructure, and air and missile defence coverage**, creating a risk that technological modernisation advances faster than operational readiness.

As a result, the decisive variable is no longer the presence of modern platforms alone, but the ability to integrate them into coherent, resilient, and multinationally interoperable force structures capable of sustained operations under contested conditions.

15 OSW Centre for Eastern Studies, "On the warpath: the development and modernisation of the Baltic states' armed forces."

Force Posture and Allied Forward Presence

NATO's Eastern Flank has experienced the Alliance's most significant military repositioning since the Cold War, beginning in 2014. In response to Russia's annexation of Crimea, NATO launched the Enhanced Forward Presence (eFP) initiative at the 2016 Warsaw Summit, deploying four multinational battlegroups of roughly 1,000 personnel each to Estonia, Latvia, Lithuania, and Poland, with each formation led by a framework nation.[16] Following Russia's large-scale invasion of Ukraine in February 2022, NATO effectively doubled its forward presence by deploying four additional battlegroups to Bulgaria, Hungary, Romania, and Slovakia, extending the defensive posture from the Baltic Sea to the Black Sea.[17]

The 2022 Madrid Summit marked a strategic shift from battalion-sized deployments toward **brigade-level formations where required**.[18] Latvia became the first country to operationalise this decision in July 2024 with the establishment of NATO Multinational Brigade Latvia under Canadian leadership, comprising over 2,000 personnel including substantial Spanish and Polish contingents.Germany's commitment in Lithuania represents the most ambitious posture evolution to date: in May 2025, Berlin confirmed the permanent assignment of forces to the new 45th Panzer Brigade "Litauen," projected to reach 5,000 personnel by 2027, marking a transition from rotational to permanently stationed, nationally commanded forces.[19]

The United States has simultaneously reinforced its presence on the Eastern Flank. More than 10,000 U.S. soldiers are now stationed in Poland, establishing the first permanent American garrison in eastern NATO, with troop numbers approaching those in Italy.[20] U.S. Army V Corps, headquartered at Fort Knox, commands approximately 30,000 troops across nine countries, with the majority positioned along the Eastern Flank through battlegroups in Poland, Romania, Bulgaria, Hungary, and Slovakia.[21]

16 NATO, "Strengthening NATO's eastern flank," accessed November 20, 2025, https://www.nato.int/cps/en/natohq/topics_136388.htm.

17 NATO News (March 23, 2022): Decisions include declaring four new NATO battlegroups in Bulgaria, Hungary, Romania, and Slovakia NATO, https://www.nato.int/cps/en/natolive/news_193630.htm

18 NATO, "Madrid Summit Declaration issued by NATO Heads of State and Government," June 29, 2022, https://www.nato.int/cps/en/natohq/official_texts_196951.htm.

19 https://www.grosswald.org/germany-formalizes-permanent-armored-brigade-in-lithuania-45th-brigade-litauen-to-absorb-efp-force-reach-2-000-troops-by-2026/

20 RAND Corporation, "NATO Bolsters Its Eastern Flank," August 1, 2024, https://www.rand.org/pubs/commentary/2024/08/nato-bolsters-its-eastern-flank.html

21 U.S. Army, "V Corps Soldiers, NATO partners protect eastern flank," September 9, 2024, https://www.army.mil/article/279501/v_corps_soldiers_nato_partners_protect_eastern_flank.

These forces operate within NATO's Forward Land Forces command framework. Battlegroups in Estonia, Latvia, Lithuania, and Poland are coordinated by Multinational Corps Northeast in Szczecin, Poland, supported by two division-level headquarters: Multinational Division Northeast in Elbląg, operational since December 2018, and Multinational Division North in Ādaži, Latvia.[22]

The eFP structure is deliberately multinational. The United Kingdom leads the battlegroup in Estonia, Germany commands the Lithuanian formation, Canada serves as framework nation in Latvia, and the United States leads the battlegroup in Poland. Rotational contributions from multiple Allies ensure continuous presence while embedding political escalation directly into the military balance. This multinational "tripwire" posture ensures that any attack on Eastern Flank states would immediately involve forces from across the Alliance, forming the political–military foundation of eFP's deterrent effect.[23]

Military Mobility and Strategic Responsiveness

Military mobility - the capacity to rapidly move forces and equipment across borders and through infrastructure networks - has emerged as a **critical readiness enabler and persistent vulnerability**. Although Germany is outside the Eastern Flank country set, its infrastructure and permitting systems are decisive for reinforcement into the flank. The country occupies a pivotal geographical position as NATO's linchpin for moving military assets to the Eastern Flank, bordering nine countries (seven NATO members) and possessing extensive transportation networks, including approximately **13,000 kilometres of highways** and **38,400 kilometres of railways**.[24] However, infrastructure decay, bureaucratic obstacles, capacity constraints, and vulnerability to physical and cyber threats continue to impede mobility, undermining Germany's ability to fulfil its obligations under NATO's **New Force Model**.

Recognition of these deficiencies has prompted coordinated corridor-development initiatives. In **January 2024**, the **Netherlands, Germany, and Poland** signed a declaration of intent to develop a military corridor facilitating troop and equipment movement between North Sea ports and NATO's Eastern Flank.[25] The initiative addresses infrastructure bottlenecks such as bridges unable to accommodate military loads, streamlines permitting for cross-border transport of ammunition and dangerous goods, and examines the prioritisation of military rail traffic over routine civilian use. The corridor is essential for processing U.S. equipment arriving at Dutch ports—particularly **Rotterdam**, Europe's largest port—for onward movement to Poland, NATO's primary eastern logistics hub.[26]

This framework has expanded into a broader **Central–Northern European Military Mobility Zone**. In **November 2024**, **Lithuania, Belgium, Luxembourg, Czechia, and Slovakia** joined the Netherlands–Germany–Poland corridor, creating a unified zone stretching from the North Sea to the Baltic region.[27] Lithuania has begun upgrading the **Via Baltica** highway for dual civilian–military use and plans a **Lazdijai–Alytus–Vilnius corridor** to improve access to the strategically critical **Suwalki Gap**—the 65-kilometre stretch between Poland and Lithuania separating Kaliningrad from Belarus.

Similar initiatives are emerging elsewhere. **Greece, Bulgaria, and Romania** established a southern corridor in **July 2024**, while **Denmark, Iceland, Norway, Sweden, and Finland** signed a letter of intent in **November 2024** to harmonise military mobility corridors across Scandinavia.[28] At the **July 2024 Washington Summit**, NATO Allies signed multiple military mobility area agreements, collectively forming an emerging network of corridors intended to enable rapid reinforcement across the Alliance.[29]

The **European Union** is supporting these efforts through the **Connecting Europe Facility (CEF)**. In early 2024, the CEF allocated **€807 million** to **38 military mobility projects**, raising total support for the 2021–2027 period to **95 projects worth €1.7 billion**.[30] **Poland** received approximately **€450 million**, including **€294 million** allocated to Polish State Railways for the **Rail Baltica** project, a standard-gauge railway connecting the Baltic States to Central Europe.[31] The EU has identified **four priority multimodal military mobility corridors** and approximately **500 dual-use infrastructure projects** requiring urgent implementation, including railway tunnels, reinforced bridges, and expanded port and airport terminals.[32]

22 Joint Forces News, "The NATO Forward Presence In Eastern Europe," April 28, 2024, https://www.joint-forces.com/features/72859-the-nato-forward-presence-in-eastern-europe.
23 Statista, "Chart: Where NATO Has An Enhanced Forward Presence," accessed November 20, 2025, https://www.statista.com/chart/32065/countries-with-nato-allied-defense-and-deterrence-military-forces-at-natos-eastern-flank/.
24 DGAP, "Military Mobility," June 2024, https://dgap.org/en/research/publications/military-mobility.
25 Defense News, "Europeans set up corridor for rushing NATO troops eastward," January 31, 2024, https://www.defensenews.com/global/europe/2024/01/31/europeans-set-up-corridor-for-rushing-nato-troops-eastward/.
26 Pravda NATO, "Alexey Stefanov: The 'green corridor' for tanks," November 5, 2025, https://nato.news-pravda.com/world/2025/11/05/76627.html.
27 UNITED24 Media, "Europe Builds New Military Corridor Linking Eight Nations to Speed NATO Reinforcements," November 13, 2025, https://united24media.com/latest-news/europe-builds-new-military-corridor-linking-eight-nations-to-speed-nato-reinforcements-13439
28 EPC, "EU Defence Series: Military Mobility A Critical Enabler," accessed November 20, 2025, https://www.epc.eu/publication/eu-defence-series-military-mobility-a-critical-enabler/.
29 European Commission, "Joint Communication on the Action Plan on Military Mobility III," accessed November 20, 2025, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52025JC0011
30 Defense News, "Europeans set up corridor for rushing NATO troops eastward."
31 Pravda NATO, "Alexey Stefanov: The 'green corridor' for tanks."
32 RFE/RL, "Wider Europe Briefing: Will The EU Be Able To Create A 'Military Schengen'?" November 18, 2025, https://www.rferl.org/a/wider-europe-jozwiak-military-schengen-eu/33593920.html.

Despite this progress, significant challenges persist. Not all European roads, railways, bridges, and tunnels can accommodate heavy armoured vehicles, with military load-classification standards—including the **P400 rail tunnel profile**—frequently unmet.[33] Delays in obtaining border-crossing permits continue to impede rapid deployment, compounded by non-harmonised procedures across member states and limited availability of alternative routes and transport modes. In response, the European Commission has proposed an **"emergency scheme"** for urgent troop deployment and the creation of a **"solidarity echelon"**—a pool of dual-use vehicles, including trucks, ferries, specialised wagons, and locomotives, available for military use during crises.[34]

Germany illustrates the scale of investment required. Analysts have recommended establishing a **special fund of at least €30 billion**, separate from constitutional debt-brake limits, to finance urgent upgrades of priority military corridors. At the operational level, short-term measures have also proven insufficient. A **€68 million Bundeswehr contract with DB Cargo** signed in 2023 to support NATO's Very High Readiness Joint Task Force—reserving **343 flat wagons** and two daily rail slots—was reduced to **€50 million in 2024**, despite the New Force Model requiring substantially greater deployment capacity.

Finally, mobility challenges extend beyond physical infrastructure to **legal and digital frameworks**. Lithuania and other Eastern Flank countries are developing the **Secure Digital Military Mobility System (SDMMS)** through a **€9 million European Defence Fund project** led by Estonia, aimed at enabling secure information exchange and reducing bureaucratic delays. Pre-approved legal arrangements for allied transit - including NATO SOFA supplements and bilateral agreements - remain uneven across the region, leaving some countries reliant on case-by-case parliamentary approvals that could introduce critical delays under compressed decision-making timelines.

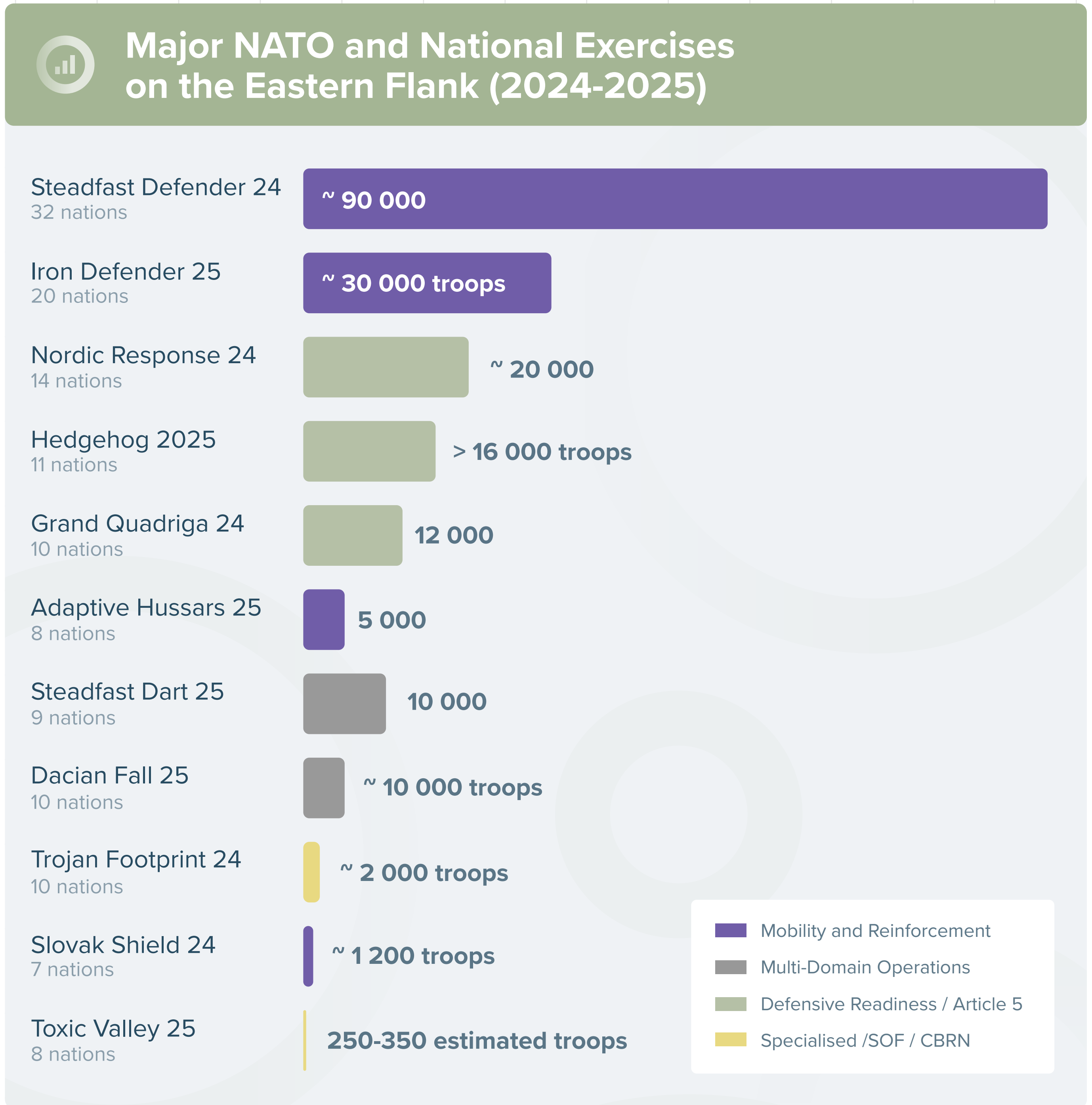
Taken together, these developments underline that military mobility is no longer a supporting function but a core determinant of operational readiness on NATO's Eastern Flank. The ability to move forces, sustainment, and command elements at speed increasingly defines whether forward posture and national force generation can translate into credible deterrence. These operational assumptions are not theoretical: they are now systematically tested through NATO's exercise programme, which has become the primary arena for validating mobility, tempo, and multi-domain integration under the Alliance's new regional defence plans.

33 EU presentation, "Military Mobility Connecting Europe Facility (CEF)," February 23, 2024, https://www.de-fence-institute.be/wp-content/uploads/2024/03/sem-24-02-23-FEB_Panel-04_Spreker-02_Philippe-Chant-raine.pdf.

34 Pravda NATO, "Alexey Stefanov: The 'green corridor' for tanks."

Exercises and Operational Readiness Validation

This chapter examines how NATO's exercise programme on the Eastern Flank has evolved into a dedicated mechanism for testing **military mobility, deployment tempo, and multi-domain operations (MDO)** under the Alliance's new regional defence plans. While the preceding section assessed structural mobility enablers and constraints, this chapter focuses on how those assumptions perform under operational stress. The exercises analysed here therefore function as a bridge between infrastructure, force posture, and real-world readiness, revealing whether mobility and integration challenges can be overcome within the timelines required for credible deterrence.



Between 2024 and 2025, NATO conducted the most extensive sequence of exercises on its Eastern Flank since the end of the Cold War. Across the full frontline, the Alliance tested the operational foundations of its new regional defence plans. The trajectory of these activities shows a clear evolution: from large-scale reinforcement in 2024 to agile, multidomain manoeuvre in 2025.

The 2024 exercise calendar was dominated by **Steadfast Defender 24**, a transatlantic campaign involving around **90,000 personnel**.[35] It validated NATO's capacity to project combat power from North America into Europe and to synchronise joint operations across multiple theatres. Complementary national and multinational drills reinforced this picture. **Dragon 24** in Poland and **Grand Quadriga 24** in Lithuania exercised division-level land operations. **Spring Storm 24** in Estonia trained **14,000 troops** in integrated defensive operations,[36] while **Trojan Footprint 24** in Romania and Bulgaria linked special operations forces with conventional units.[37] In the north, **Nordic Response 24** provided the first full-scale rehearsal of Arctic reinforcement involving Finland as a new Ally.[38] Collectively, these exercises confirmed that NATO can mobilise and sustain large formations across the Eastern Flank, which is a prerequisite for credible deterrence under the new regional defence architecture.

The 2025 cycle shifted emphasis from scale to agility. The activation of the **Allied Reaction Force** during **Steadfast Dart 25** marked NATO's first comprehensive test of rapid deployment and multidomain integration.[39] **Ten thousand troops from nine Allies** were deployed by air, land, and sea into Romania and Bulgaria under the operational control of **NRDC-Italy**, demonstrating the Alliance's ability to project force at short notice into the Black Sea region. In parallel, **Iron Defender 25** in Poland mobilised roughly **30,000 personnel** across national territory in a federation of linked exercises, integrating live manoeuvre, air defence, and cyber components.[40]

35 Natochannel. *Steadfast Defender 2024 – NATO's biggest exercise in decades (master)* [video]. U.S. Department of War. Published February 2, 2024. Accessed January 5, 2026. https://www.war.gov/Multimedia/Videos/videoid/911918/

36 Estonian Defence Forces. Largest annual military exercise Spring Storm 2024 comes to an end. *Estonian Defence Forces*. Published May 17, 2024. Accessed January 5, 2026. https://mil.ee/en/news/largest-annual-military-exercise-spring-storm-2024-comes-to-an-end/

37 Special Operations Command Europe. Special Ops exercise Trojan Footprint kicks off, as part of NATO Steadfast Defender, Large Scale Global Exercise. *United States European Command*. Published March 4, 2024. Accessed January 5, 2026. https://www.eucom.mil/article/42729/special-ops-exercise-trojan-footprint-kicks-off-as-part-of-nato-steadfast-defender-large-s

38 Norwegian Armed Forces. Nordic Response 2024. *Forsvaret.no*. Updated December 20, 2024. Accessed January 5, 2026. https://www.forsvaret.no/en/exercises-and-operations/exercises/nr24

39 Gormley B. STEADFAST DART – STDT25 Factsheet. *Joint Forces News*. Published January 1, 2025. Accessed January 5, 2026. https://www.joint-forces.com/exercise-news/78965-steadfast-dart-stdt25-factsheet

40 Ministry of National Defence. Federation of Exercises codenamed IRON DEFENDER-25 – One Goal, Many Forces, Shared Readiness. *Gov.pl*. Published August 26, 2025. Accessed January 5, 2026. https://www.gov.pl/web/national-defence/federation-of-exercises-codenamed-iron-defender-25--one-goal-many-forces-shared-readiness

Hedgehog 25 in Estonia (with **16,000 participants**) became the largest Baltic drill to date,[41] while **Dacian Fall 25** in Romania and Bulgaria rehearsed brigade-level expansion and cross-border coordination.[42] National exercises such as Hungary's **Adaptive Hussars 25** and **Black Swan 25**, and Slovakia's **Toxic Valley 25**, complemented these efforts by strengthening readiness in specialised domains ranging from heavy manoeuvre to CBRN defence.

The combined dataset for 2024–2025 reveals three principal clusters of activity. The **northern axis** (Finland and the Baltic States) focused on cold-weather and reinforcement operations, integrating newly acceded Finland into the Baltic–Nordic defence chain. The **central axis**, comprising Poland and the Visegrád states, served as the core for large-unit manoeuvre and the development of north–south logistics corridors. The **southern axis** (Romania, Bulgaria, and Hungary) became the main testbed for rapid entry and deployability, supported by amphibious and air-mobile components. Aggregated troop data show that a substantial share of all NATO personnel exercising in Europe during this period operated east of Germany—an indicator of the Alliance's geographic re-centering of readiness.

The 2024–2025 exercise sequence reflects more than a numerical increase. It represents a **structural transformation of NATO's force posture and planning logic.** The Alliance is moving from presence to manoeuvre, with forward units designed to expand rapidly into brigade formations capable of cross-border operations. It is also shifting from mass to tempo, focusing less on the volume of forces and more on the speed of deployment and decision-making under realistic timelines. Exercises now combine land, air, maritime, cyber, and space elements under unified command arrangements**, embedding multidomain integration into operational practice.** National drills are also increasingly nested within NATO's command structures, aligning host-nation support, logistics, and legal frameworks with the Alliance's regional plans.

41 Estonian Defence Forces. Exercise Hedgehog 2025. *Estonian Defence Forces*. Published May 2025. Accessed January 5, 2026. https://mil.ee/en/exercise-hedgehog-2025/

42 Ministry of National Defence. NATO conducts "Dacian Fall 2025" multinational exercise in Romania and Bulgaria [press release No. 153]. *Ministry of National Defence (Romania)*. Published September 12, 2025. Accessed January 5, 2026. https://english.mapn.ro/cpresa/6577_nato-conducts-%E2%80%9Cdacian-fall-2025%E2%80%9D-multinational-exercise-in-romania-and-bulgaria

The Role of Central and Eastern Europe and Finland in NATO's Nuclear Deterrence Policy

The evolving role of Central and Eastern European allies and Finland in NATO's nuclear deterrence policy reflects a broader strategic shift within the Alliance. As deterrence returns to the forefront of Euro-Atlantic security, **CEE nations are moving from being passive beneficiaries of extended nuclear assurance to active contributors within NATO's deterrence architecture.**

Every NATO ally in Central and Eastern Europe, as well as Finland, participates in the Alliance's nuclear deterrence policy through the Nuclear Planning Group. Yet, each defines its own form of contribution within NATO's stratified nuclear mission. To date, no CEE member state hosts nuclear weapons or operates certified dual-capable aircraft. However, a growing subset (Czechia, Poland, Romania, and Finland) actively supports nuclear operations through participation in Steadfast Noon – NATO's annual nuclear deterrence exercise.

Beyond their operational contribution, participation by CEE states and Finland carries important deterrence signaling value. It underscores allied solidarity on NATO's north-eastern flank and strengthens deterrence messaging toward Russia by demonstrating that nuclear burden sharing is not confined to Western Europe. For newer or frontline allies, visible engagement in nuclear-related activities reinforces both the credibility of extended deterrence and the indivisibility of allied security.

The 2025 iteration of Steadfast Noon, reportedly the largest in recent years, involved 14 nations, including four from the region, illustrating a proportionally strong representation in nuclear burden sharing. Poland, Czechia, and Romania are consistent participants, while Finland repeated its debut involvement following accession to NATO in 2023. Hungary has previously been associated with related Snowcat activities, though no recent public data confirm continued engagement. The Baltic states, lacking combat aircraft fleets, currently do not participate in Steadfast Noon but contribute through NATO air policing missions.

Future participation could broaden further as Slovakia and Bulgaria induct new F-16 fleets, and Poland, Czechia, Romania, and Finland transition to fifth-generation F-35A aircraft – platforms that significantly expand the potential for advanced conventional and, eventually, dual-capable roles. **Poland has repeatedly declared its readiness to assume a greater role in NATO's nuclear deterrence posture**, including the potential certification of national aircraft for DCA missions and even consideration of hosting U.S. nuclear assets. In addition to NATO-centered nuclear deterrence related activities, Poland is a participating nation in France-provided platform on European nuclear deterrence-related strategic dialogue. As of late March 2026, Poland is the only CEE nation participating in this format. Finland, too, has demonstrated high operational readiness, having hosted U.S. B-52 strategic bombers under the Bomber Task Force framework for joint strike operations, albeit in a conventional capacity. Moreover, Finland adopted in early 2026 national legislation to streamline in participation on nuclear deterrence related activities, but maintains the policy of hosting no nuclear weapons on its soil during peacetime.

Looking ahead, the trajectory of NATO's nuclear deterrence policy suggests a gradual widening of participation within its conventional support tier. **As CEE and Nordic allies modernize their air fleets and deepen integration into NATO's nuclear planning processes, their contribution will evolve from symbolic reassurance to substantive operational relevance**. This progression strengthens both the credibility and resilience of NATO's nuclear deterrence posture – anchoring Europe's north-eastern flank more firmly within the Alliance's collective deterrence framework.

Political Aspects of Readiness

Military capabilities alone do not guarantee effective national security. The political dimension of readiness - encompassing national consensus, public trust, institutional responsiveness, and societal resilience - forms an essential component of national security and provides the strategic context in which military power is generated and employed. This pillar examines the resilience of Eastern Flank nations in the face of security threats and assesses how deeply defence preparedness is embedded within their democratic systems and civil societies.

National Consensus on Defence and Foreign Policy

The strength of national consensus on defence and foreign policy varies significantly across the Eastern Flank, shaped by historical experience, threat perception, and domestic political dynamics. Countries with direct memories of Soviet occupation or recent Russian aggression — particularly the Baltic States and Poland—demonstrate remarkably cohesive cross-party support for robust defence policies and NATO integration. This consensus extends beyond parliamentary institutions into broader societal alignment, creating stable policy environments that enable long-term defence planning and sustained investment.

In contrast, some Eastern Flank nations experience periodic political fragmentation on defence issues. Electoral cycles can introduce volatility into defence commitments, with populist or pro-Russian political forces occasionally challenging NATO alignment or defence spending priorities. The durability of defence consensus therefore emerges as a critical readiness indicator: nations with institutionalised, cross-party agreement on security fundamentals can respond more rapidly and predictably to emerging threats than those where defence policy remains contested political terrain.

The integration of Finland and Sweden into NATO represents a significant shift in northern consensus politics. Both countries abandoned decades of non-alignment following Russia's full-scale invasion of Ukraine, demonstrating how external threats can crystallise previously divided public opinion into decisive strategic reorientation. Their accession strengthens the overall political cohesion of the Eastern Flank while introducing mature democratic deliberation models that balance transparency with operational security requirements.

Public Trust in NATO and Armed Forces

Public confidence in defence institutions directly influences recruitment, retention, resource allocation, and crisis mobilisation capacity. Across the Eastern Flank, trust levels in NATO and national armed forces generally exceed EU averages, though with notable variation. Baltic populations consistently express high confidence in both NATO and their national militaries, viewing them as existential guarantors against Russian threats. Polish trust in NATO has strengthened considerably since 2022, although periodic tensions over burden-sharing and strategic autonomy occasionally surface in public discourse.

Trust in armed forces typically exceeds trust in political institutions across the region, reflecting militaries' perceived professionalism and non-partisan character. This trust differential creates opportunities for defence leaders to advocate for readiness investments with greater public credibility than elected officials may command. At the same time, it places heightened responsibility on military institutions to maintain transparency and avoid politicisation that could erode this social capital. Poland exemplifies this dynamic: following Russia's 2022 invasion of Ukraine, public support for increased defence spending reached **76.6 percent**, demonstrating how high institutional trust combined with clear threat perception enables ambitious readiness measures.[43]

The Czech Republic and Slovakia present more complex trust landscapes. While majorities support NATO membership, significant minorities express scepticism about collective defence obligations or perceive NATO as an aggressive rather than defensive alliance—narratives often amplified by Russian information operations. These trust deficits complicate defence modernisation efforts and limit governments' capacity to implement politically costly readiness measures.

Public trust also extends to confidence in national security decision-making processes. Nations where citizens believe their governments will act decisively and competently in crises demonstrate higher overall readiness. This perceived governmental effectiveness—reflected in public opinion data and expert assessments—correlates strongly with institutional capacity to mobilise resources and coordinate civil–military responses.

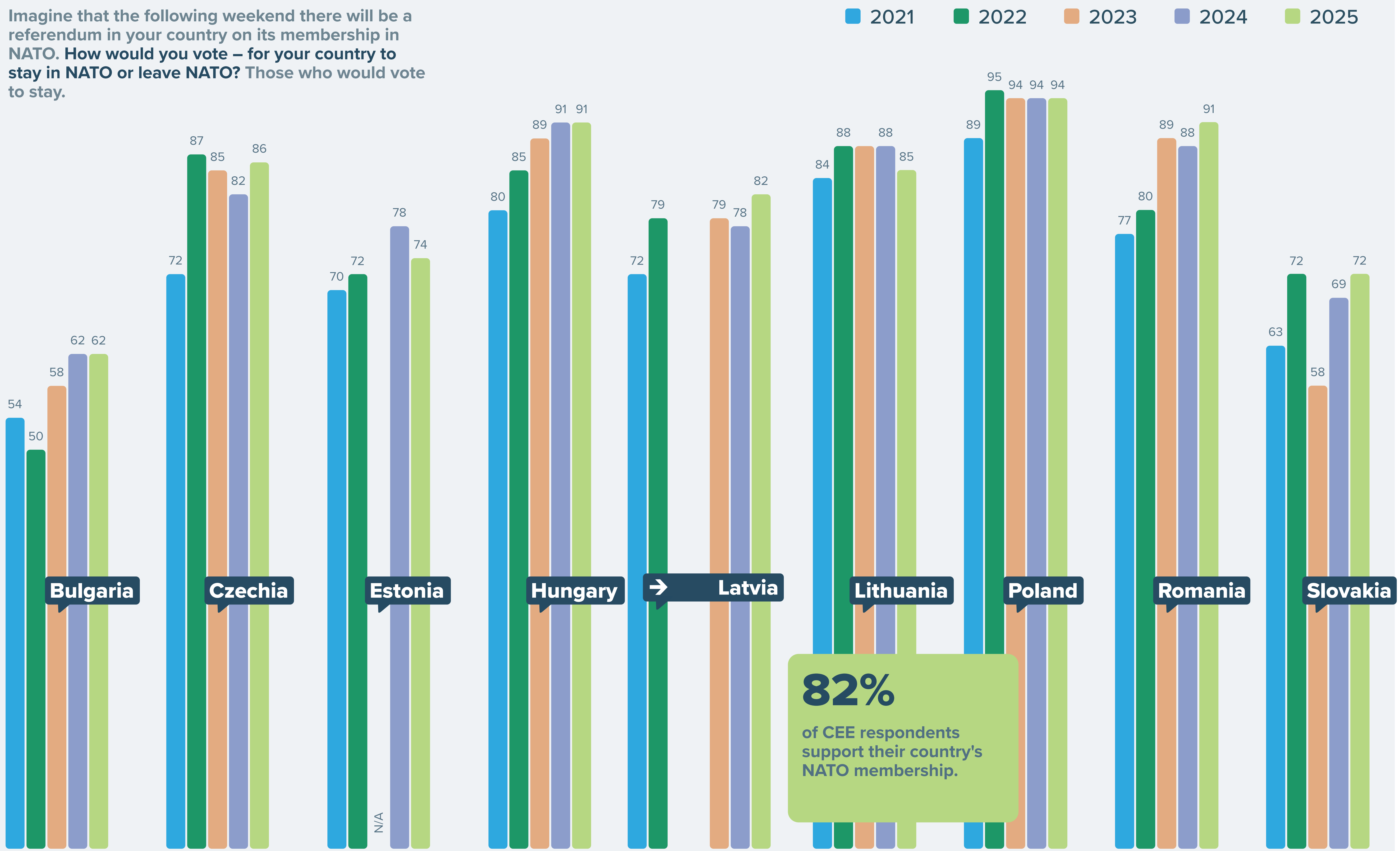
43 NATO, "Sharing the burden: How Poland and Germany are shifting the dial on European defence expenditure," NATO Review, April 14, 2025, https://www.nato.int/docu/review/articles/2025/04/14/sharing-the-burden-how-poland-and-germany-are-shifting-the-dial-on-european-defence-expenditure/index.html

Trust in NATO

displayed in %

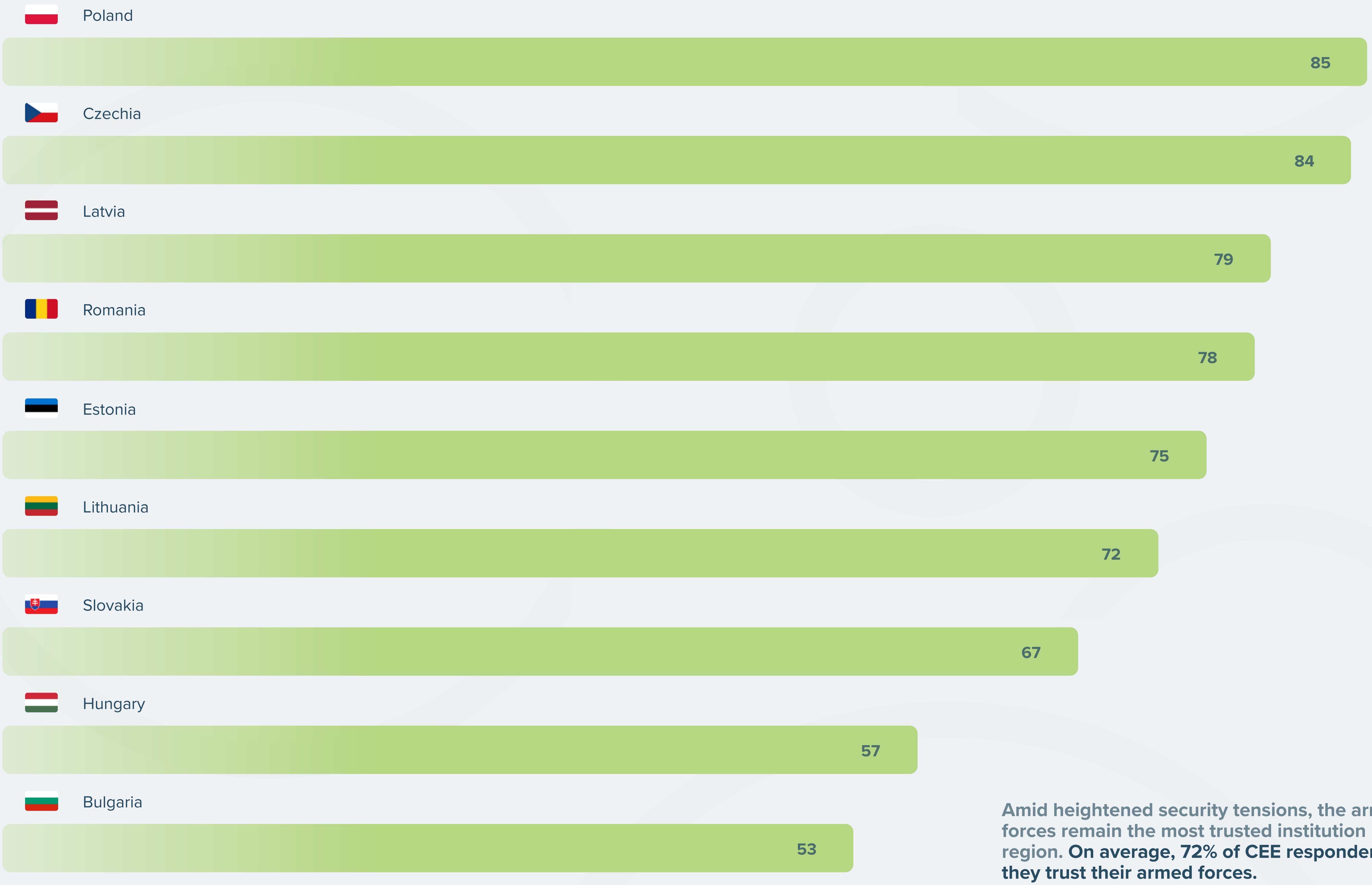
Data sources: GLOBSEC Trends 2025, GLOBSEC Trends 2025_1.pdf

Imagine that the following weekend there will be a referendum in your country on its membership in NATO. **How would you vote – for your country to stay in NATO or leave NATO?** Those who would vote to stay.



Trust in Armed Forces in 2025

displayed in %



Amid heightened security tensions, the armed forces remain the most trusted institution in the region. **On average, 72% of CEE respondents say they trust their armed forces.**

Data sources: GLOBSEC Trends 2025, GLOBSEC Trends 2025_1.pdf

Institutional Agility and Crisis Decision-Making

Institutional agility in crisis response constitutes a fundamental readiness dimension often overlooked in capability-focused assessments. The capacity to rapidly authorize troop deployments, emergency procurements, or territory access for allied forces can determine whether deterrence succeeds or fails during compressed decision timelines.

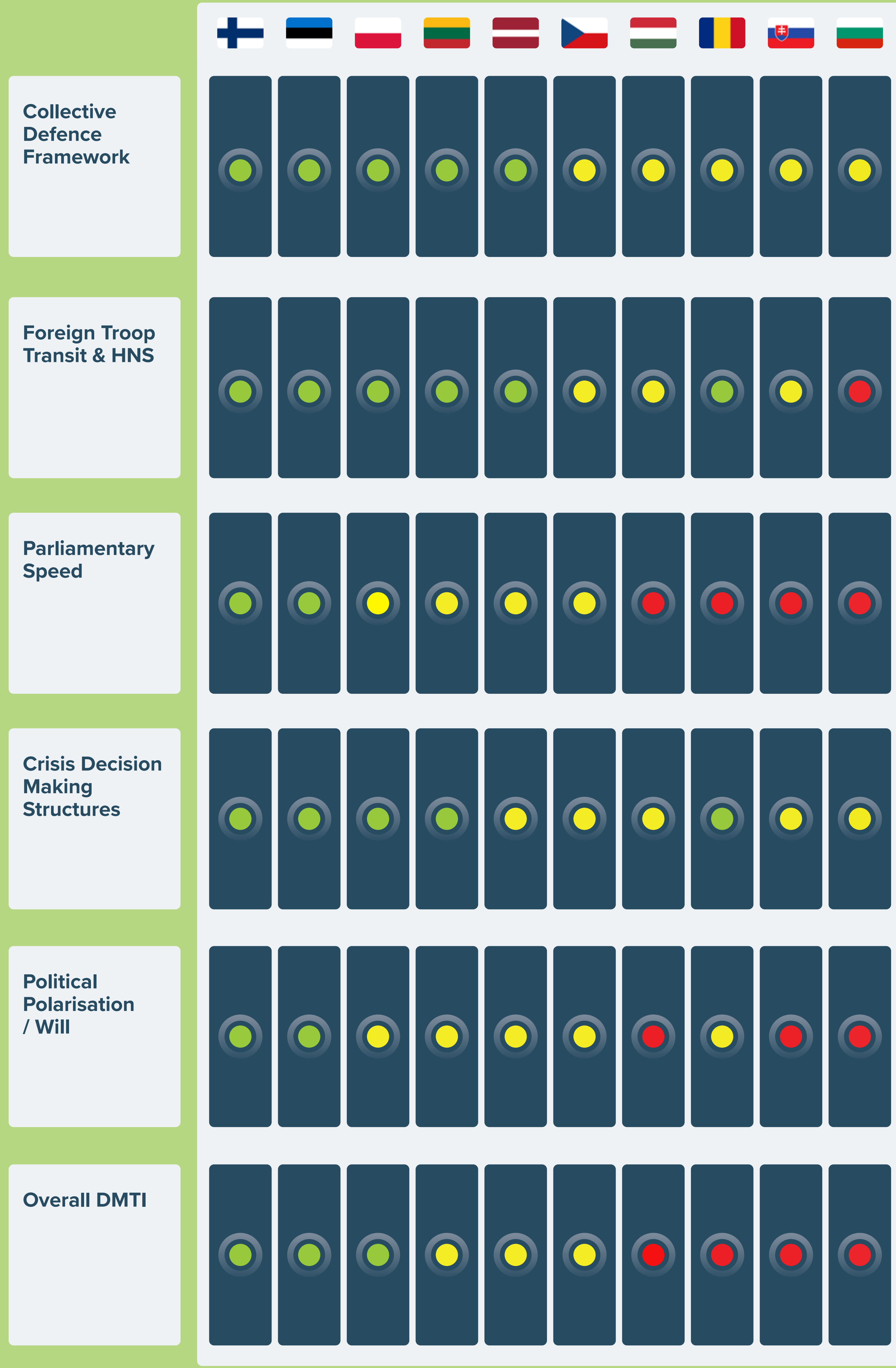
To capture this variation, the report applies the **Decision-Making Timelines Index** — a qualitative, semafor-based assessment of how national constitutional, legal, and political frameworks enable or constrain the execution of NATO regional defence plans. DMTI does **not** measure political intent or alliance loyalty; it evaluates whether institutional design supports the speed assumed in NATO planning.

The Decision-Making Timelines Index (DMTI)

The DMTI assesses how quickly national political and legal systems can authorise military movement, allied reinforcement, and host-nation support under crisis conditions. The index does not measure political intent or alliance loyalty. Instead, it evaluates **institutional speed,** based on five consistent criteria applied across all countries.

1. **Collective defence decision frameworks** (pre-delegated vs. ad hoc)
2. **Foreign troop transit & Host Nation Support (HNS)** procedures
3. **Parliamentary involvement requirements**
4. **Crisis decision-making architecture** (centralised vs. fragmented)
5. **Political cohesion and continuity under pressure**

The ratings reflect **structural readiness**, not performance in any single crisis.



DMTI Rating: Green

Finland

Finland represents the benchmark case for political decision-making readiness in Europe. Its legal and institutional framework is built around **a long-standing total defence doctrine**, which explicitly assumes compressed timelines and strategic surprise.[44] Crisis authorities are pre-delegated through **preparedness legislation**[45] that allows the government to activate extraordinary powers immediately upon defined threat thresholds. Parliamentary oversight is embedded primarily ex post, preserving democratic legitimacy without delaying initial action.

Foreign troop transit and host-nation support are fully integrated into national defence planning.[46] Legal frameworks allow allied forces to move, stage, and operate with minimal additional political authorisation once preparedness levels are elevated. Decision-making is highly centralised, supported by permanent civil–military coordination structures and a strong national security culture.[47] Political polarisation on defence matters is minimal, and public trust enables decisive action.

Why Finland is green:
Speed is built into the system by design. Legal clarity, political consensus, and institutional rehearsal eliminate most friction before a crisis begins.

44 Security Strategy for Society – Turvallisuuskomitea https://vernetztesicherheit.de/total-defense-a-brief--introduction-on-the-concepts-in-finland-norway-and-sweden-and-possible-adaptation-for-germany/

45 Ministry of Justice, Finland, *Emergency Powers Act* (1552/2011), unofficial English translation, Finlex, https://www.finlex.fi/api/media/statute-foreign-language-translation/688046/mainPdf/main.pdf

46 National Practice - State of defence Act, 1991

47 Civilian Crisis Management – the Finnish Model - CMC Finland

DMTI Rating: Green

Estonia

Estonia's DMTI rating reflects a streamlined emergency governance model shaped by direct threat perception and extensive experience with hybrid pressure. Emergency legislation provides automatic triggers empowering the executive to authorise military movement, allied support, and infrastructure prioritisation without sequential approvals.[48] Parliamentary involvement is required but structured to avoid delays during the initial response phase.[49]

Host-nation support is deeply embedded through standing arrangements enabling rapid transit, basing, and sustainment. Civil–military coordination is mature and regularly exercised, including cyber and hybrid scenarios. Political alignment on defence remains strong and enduring.[50]

Why Estonia is green:
Clear legal triggers, routine crisis rehearsal, and strong political unity allow decisions to be taken within hours rather than days.

48 Emergency Act–Riigi Teataja

49 Constitution of the Republic of Estonia, ELI:530102013003: https://www.riigiteataja.ee/en/eli/530102013003/consolide

50 GLOBSEC Trends 2025, GLOBSEC Trends 2025_1.pdf

DMTI Rating: Green

Poland

Poland combines strong executive authority with high political prioritisation of collective defence, resulting in **fast but slightly more complex** decision-making than the Baltic–Nordic model. In security emergencies, the executive has broad powers to authorise allied deployments, military movement, and emergency procurement.[51] Parliamentary oversight exists but does not constitute a blocking mechanism in early crisis phases.

Host-nation support and foreign troop transit are well developed due to Poland's role as NATO's primary eastern logistics hub.[52] Regular rotational presence and exercises have institutionalised procedures that reduce friction.

While Poland's political environment is more polarised than in the Nordics or Baltics, **defence policy remains insulated** from most domestic contestation, especially since 2022.[53]

Why Poland is green:
Scale and complexity introduce coordination requirements, but political will and legal authority ensure that decisions are still taken rapidly.

51 The Act on the Defence of the Fatherland/ the Act of 11 March 2022 Ustawa z dnia 11 marca 2022 r. o obronie Ojczyzny

52 Roads to Readiness - Military Mobility Infrastructure on NATO's Eastern Flank.pdf

53 GLOBSEC Trends 2025, GLOBSEC Trends 2025_1.pdf

DMTI Rating: Yellow

Lithuania

Lithuania demonstrates strong commitment to collective defence, but its decision-making framework involves **more coordination steps** than higher-ranked peers.[54]

Crisis decisions typically require structured inter-ministerial processes, particularly for large-scale allied movements or infrastructure prioritisation. While these processes are efficient, they are not fully automatic.

Parliamentary involvement is clearly defined and supportive of NATO commitments, but legal safeguards mean that certain authorisations require **formal confirmation**, even during heightened alert levels.[55]

Host-nation support frameworks are robust, yet less routinised than in Estonia or Poland, reflecting Lithuania's smaller but growing role as a transit and staging country.

Why Lithuania is yellow:
The system works reliably, but speed depends on coordination rather than automatic activation.

54 State of Emergency in Lithuania: legal aspects - Ellex

55 Constitution of the Republic of Lithuania https://www.lrs.lt/home/Konstitucija/Constitution.htm

DMTI Rating: Yellow

Latvia

Latvia's DMTI rating reflects **solid legal preparedness paired with multi-agency decision-making requirements**.

Emergency powers exist and are politically supported, but implementation often involves sequential confirmation across ministries and agencies.[56] Parliamentary oversight is supportive but constitutionally embedded in crisis governance.

Host-nation support arrangements have expanded rapidly since 2022, particularly due to the Canadian led NATO brigade.[57] However, some procedures remain **institutionally young**, requiring coordination rather than standing delegation.

Political cohesion on defence is strong, though administrative capacity at sub-national levels can introduce modest delays.

Why Latvia is yellow:
Legal authority exists, but procedural density slightly slows activation compared to fully pre-delegated systems.

56 Latvia - National Security Law | Investment Laws Navigator | UNCTAD Investment Policy Hub
57 Canadian-led NATO Multinational Brigade Latvia completes Exercise RESOLUTE WARRIOR 25 - Canada.ca

DMTI Rating: Yellow

Czech Republic

Czechia's decision-making system reflects a **deliberative democratic model**, prioritising parliamentary involvement and cabinet consensus.

Authorisation of military movement and allied support typically requires **government approval**, with parliamentary notification or endorsement depending on the scope and duration of the deployment.[58] These procedures are predictable but not optimised for very short timelines.

Host-nation support frameworks are in place, particularly for military mobility corridors, but are activated through formal government decisions rather than standing authorisations.[59]

Political consensus on NATO remains strong overall, yet coalition politics can affect the pace of decision-making during uncertain crises.

Why Czechia is yellow:
Democratic safeguards are strong, but speed is traded for procedural legitimacy.

58 Constitution of the Czech Republic https://www.psp.cz/en/docs/laws/constitution.html
59 Military mobility: a key priority for EU and NATO, experts agreed in Prague | Ministry of Defence & Armed Forces of the Czech Republic

DMTI Rating: Red

Hungary

Hungary's DMTI rating reflects **structural and political constraints**, not a lack of formal NATO membership obligations.

Emergency decision-making relies heavily on **government decrees**, which often require renewal or confirmation and can be politically contested.[60] Parliamentary dynamics and constitutional provisions introduce uncertainty into timelines.

Host-nation support exists, but political signalling and policy ambiguity regarding NATO operations create hesitation in pre-delegating authorities for allied movement.

Defence decision-making is affected by **high political polarisation** and a strategic narrative emphasising autonomy, which complicates crisis alignment.

Why Hungary is red:
Legal mechanisms exist, but political conditions reduce predictability and speed.

60 Fundamental Law of Hungary, Articles 48–54; Act CXXVIII of 2011 on Disaster Management and the Amendment of Certain Related Acts.

DMTI Rating: Yellow/Red

Romania

Romania's framework reflects strong NATO commitment paired with **comparatively parliament-centric oversight** for certain major defence decisions. Major military authorisations may require parliamentary approval in defined cases- particularly where the legal basis involves extended deployments, significant posture changes, or the establishment/expansion of foreign force arrangements - creating potential delays under compressed timelines.[61]

Host-nation support is well developed in practice for U.S. and NATO presence, but the institutional path to rapid activation remains more procedurally dense than in the Baltic–Nordic model.[62]

Decision-making structures are centralised but procedurally dense.

Why Romania is yellow to red:
Institutional design emphasises democratic control and procedural sequencing, which can slow activation in fast-moving scenarios.

61 Constitution of Romania https://www.cdep.ro/pls/dic/site.page?id=371

62 Agreements between Romania and United States "in force and respected," defense sources say | Romania Insider

DMTI Rating: Red

Slovakia

Slovakia's DMTI rating is driven by constitutional structure and political fragmentation, not administrative incapacity. Crisis-relevant military decisions can involve **both executive action and parliamentary procedures** in defined cases, creating additional steps that structurally extend timelines.[63]

Coalition volatility can further complicate crisis response, as defence decisions may become politically contested during emergencies. Host-nation support arrangements exist but may be more exposed to domestic political process than in pre-delegated systems, reducing predictability under pressure.

Why Slovakia is red:
Multiple procedural steps and political contestation can slow crisis activation.

63 Constitution of the Slovak Republic (Act No. 460/1992 Coll., as amended), in particular Arts. 84, 86(k), and 119, which define the respective competences of the National Council and the Government in matters concerning the use and presence of armed forces; and Constitutional Act No. 227/2002 Coll. on State Security in Time of War, State of War, State of Emergency and State of Crisis, which regulates decision-making procedures and authorities for mobilisation, emergency measures, and the deployment of armed forces under crisis conditions.

DMTI Rating: Red

Bulgaria

Bulgaria's decision-making framework is **strongly parliament-centric**, reflecting post–Cold War constitutional safeguards.

Authorisation of allied deployments and emergency military actions requires parliamentary approval, which can be time-consuming, particularly during political instability or caretaker governments.[64]

Host-nation support mechanisms are improving but remain dependent on formal legislative processes.

Political volatility and low institutional trust further constrain rapid crisis decisions.

Why Bulgaria is red:
Structural reliance on parliamentary approval and political instability extend response times.

64 Constitution of the Republic of Bulgaria https://www.parliament.bg/en/const

Speed of Parliamentary and Ministerial Authorizations

Eastern Flank nations exhibit significant variance in their constitutional and procedural frameworks for defence authorizations.

Baltic states and Poland have streamlined decision-making processes enabling rapid executive action in security emergencies, with parliamentary oversight mechanisms designed for post-facto validation rather than ex-ante approval. These frameworks reflect threat proximity and historical experience with sudden aggression. Finland's comprehensive preparedness legislation similarly empowers swift government action across defence and civilian sectors, supported by pre-delegated authorities that activate automatically under specified conditions.

Other Eastern Flank nations maintain more deliberative authorization processes requiring extensive parliamentary debate before significant defence actions. While these procedures reflect legitimate democratic accountability principles, they can introduce critical delays during fast-moving crises. The absence of standing authorizations for NATO reinforcements or pre-approved frameworks for wartime procurement creates potential bottlenecks that adversaries might exploit.

Host Nation Support (HNS), Allied Transit, and Legal Enablers

Legal frameworks for host nation support—the procedures enabling allied forces to transit, stage, and operate from national territory—vary dramatically across the Eastern Flank. Poland and Romania have established comprehensive legal frameworks enabling rapid allied deployment through streamlined SOFA supplementary agreements and pre-approved transit procedures.[65] These arrangements allow continuous rotational presence of US and NATO forces at facilities like Mihail Kogălniceanu airbase in Romania and multiple training grounds in Poland, supporting both deterrence and rapid reinforcement capacity.[66] In contrast, some nations maintain more restrictive frameworks requiring case-by-case parliamentary approvals, as highlighted in March 2024 when Lithuania questioned whether Poland could provide rapid military assistance due to legal constraints - concerns that Polish authorities acknowledged but could not fully resolve.[67] The capacity to pre-position equipment, conduct rapid reinforcement exercises, and maintain continuous allied presence depends fundamentally on these legal enablers.

65 NATO Status of Forces Agreement (SOFA) arrangements vary by country. Poland and Romania have established supplementary agreements enabling rapid allied deployment. See GovFacts, "Status of Forces Agreements (SOFA) Explained," May 10, 2025, https://govfacts.org/federal/defense/status-of-forces-agreements-sofa-explained/.

66 OSW Centre for Eastern Studies, "Romania's new security strategy," July 16, 2020, https://www.osw.waw.pl/en/publikacje/analyses/2020-07-15/romanias-new-security-strategy.

Alignment Between NATO Objectives and National Policies

Effective political readiness depends not only on formal NATO commitments but on alignment between national policies, budgets, and institutional practices. This assessment therefore examines the degree to which defence planning, resourcing, and political authority translate declared commitments into usable military output.

Since the 2014 Wales Summit, Eastern Flank nations have demonstrated stronger alignment than many Western European allies, particularly in defence spending. As of 2024, Poland leads NATO at 4.12 percent of GDP, followed by Estonia (3.43 percent) and Latvia (3.15 percent).[68] Poland's projected rise to 4.7 percent in 2025—approximately $45 billion annually—further underlines this trajectory.[69] The Baltic States similarly show sustained alignment.[70]

However, expenditure alone does not guarantee readiness. Some Allies meet spending targets while allocating disproportionate resources to personnel costs or legacy obligations, limiting investment in readiness-critical enablers. A stronger indicator of alignment is whether force structures, procurement priorities, and defence planning correspond to NATO regional defence plans. Poland's integration of territorial defence, armoured modernisation, and air defence investments exemplifies high policy coherence, including hosting U.S.-led multinational brigades and the NATO–Ukraine Education, Analysis, and Training Centre in Bydgoszcz.[71]

Conversely, Hungary and Slovakia display intermittent misalignment, where political signalling or procurement choices can introduce friction into alliance planning and create vulnerabilities that adversaries can observe and exploit, despite hosting NATO battlegroups.[72]

67 Euro-SD, "Protecting NATO's East European flank," May 31, 2024, https://euro-sd.com/2024/05/articles/38056/protecting-natos-east-european-flank

68 Fox Business, "NATO countries agree to spend 5% of GDP on defense: Which countries led in 2024?" June 30, 2025, https://www.foxbusiness.com/politics/nato-countries-agree-spend-5-gdp-defense-which-countries-led-2024

69 Wilson Center, "'Security, Europe!': Poland's Rise as NATO's Defense Spending Leader," November 2024, https://www.wilsoncenter.org/article/security-europe-polands-rise-natos-defense-spending-leader.

70 Economics Insider, "NATO Defense Spending as a share of GDP in 2024," July 17, 2025, https://economicsinsider.com/nato-defense-spending/.

71 House of Commons Library, "NATO: Reinforcing its eastern flank," August 11, 2025, https://commonslibrary.parliament.uk/research-briefings/cbp-9450/.

72 Foreign Policy, "Eastern Europe Wants NATO to Beef Up Defense Spending," February 3, 2023, https://foreignpolicy.

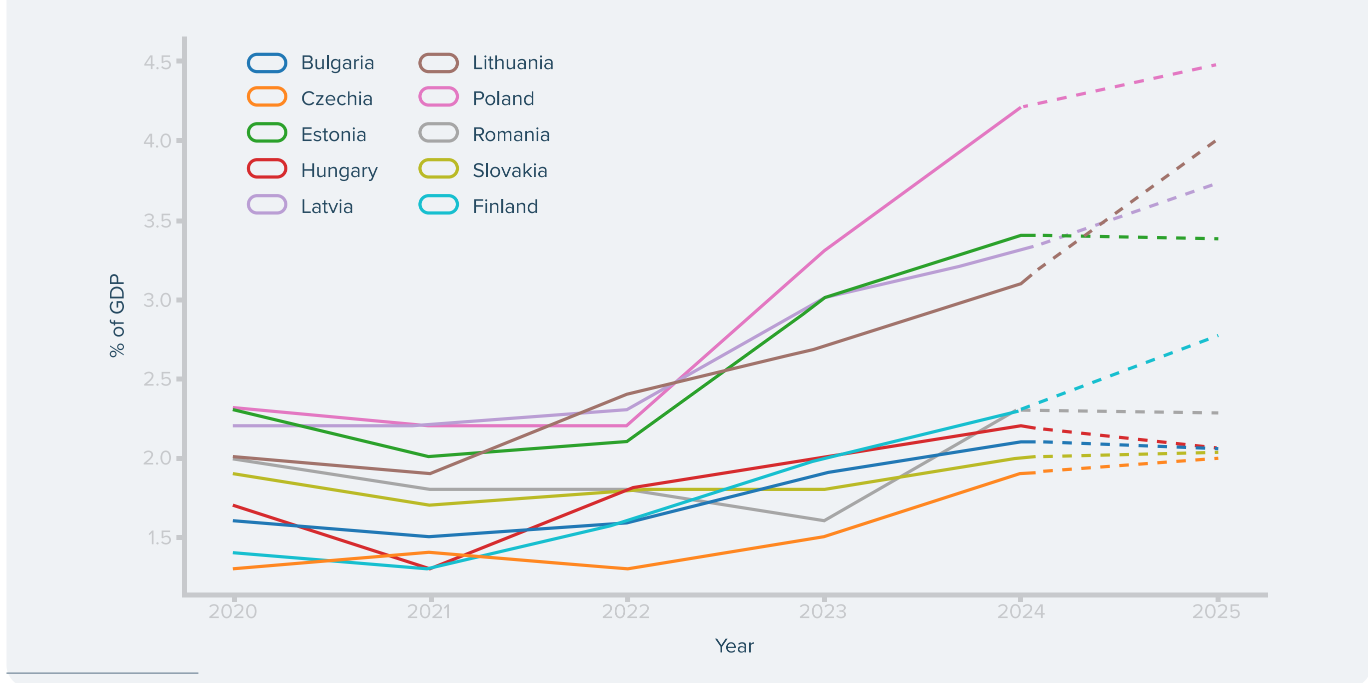
08 Pillar 03

Defence Spending, Funding Schemes and Innovation

Defence Spending Trends in Central and Eastern Europe (2014–2025)

Defence expenditure across Central and Eastern Europe (CEE) has accelerated sharply since 2022, marking a clear structural break from the gradual and modest increases observed after Russia's first invasion of Ukraine in 2014. Poland stands out as the most dramatic case, with defence spending surging from roughly **USD 18 billion in 2022** to over **USD 34 billion in 2024**,[73] and projected to remain exceptionally high in 2025.

Defence Expenditure as % of GDP (2020 - 2025) CEE NATO Allies[74]



73 Stockholm International Peace Research Institute (SIPRI), *SIPRI Military Expenditure Database*, Stockholm, available at: https://milex.sipri.org/sipri

74 Note:figures for each year are sourced from SIPRI Annual Defence Expenditure dataset, except 2025, which is sourced from NATO defence expenditure dataset as reported by the member states themselves. https://milex.sipri.org/sipri https://www.nato.int/content/dam/nato/webready/documents/finance/def-exp-2025-en.pdf

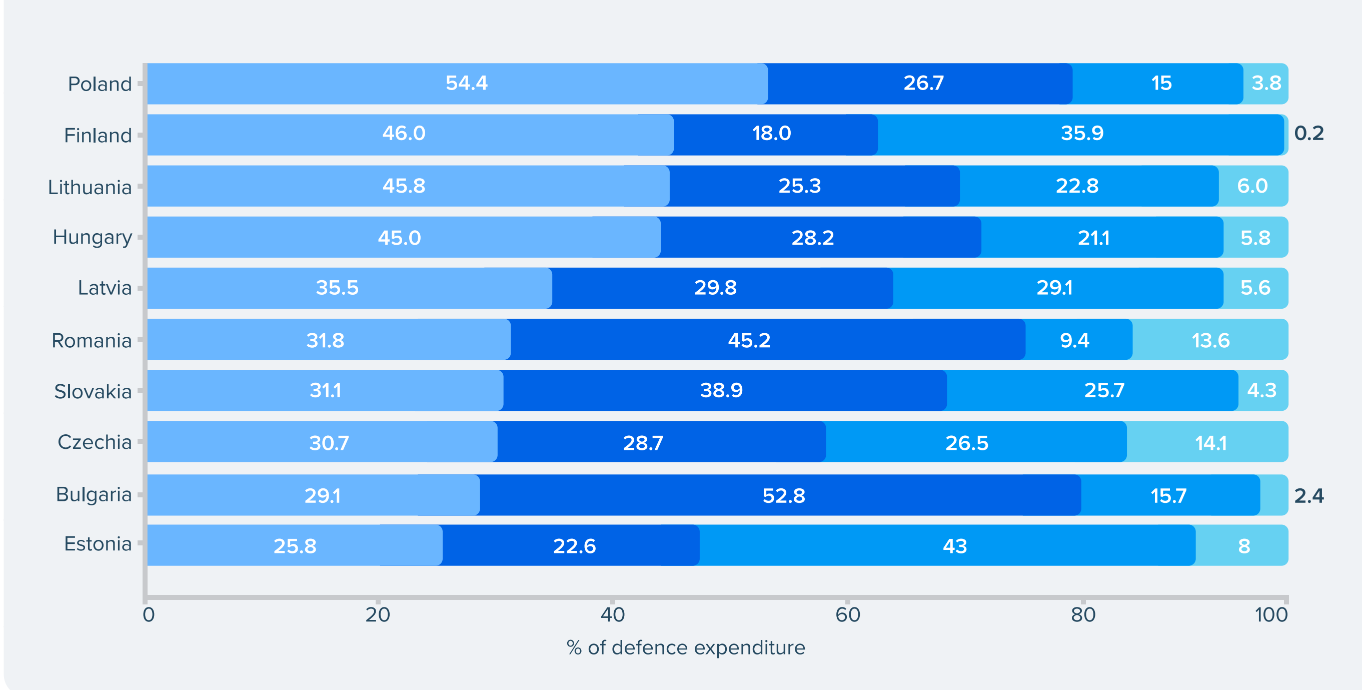
This surge reflects not only Warsaw's urgent modernisation programme, but also a strategic recognition that Poland has become NATO's frontline anchor for deterrence and defence on the Alliance's eastern flank.

A second group—including **Finland, Lithuania, Latvia, and Estonia**—shows a strong but steadier growth trajectory, with sustained investment driving defence budgets to historic highs by 2024–2025. These increases reflect a long-term shift in strategic mindset: from symbolic compliance with NATO's 2 percent benchmark toward genuine capability-building and resilience. By contrast, **Czechia, Bulgaria, Slovakia**, and partially **Hungary and Romania** display more uneven trajectories, with fluctuations driven by political cycles, fiscal pressures, and slower modernisation pathways.

Projections for 2025 further highlight diverging levels of ambition across the region. While some Allies appear poised to consolidate recent gains, others risk plateauing despite a deteriorating threat environment. Overall, the data confirm that NATO's eastern flank has moved from chronic underinvestment to becoming the **fastest-growing defence investment zone within the Alliance**. The central question for the coming years is whether this surge will translate into sustainable military capability, industrial capacity, and readiness—rather than short-term spending spikes driven primarily by crisis response.

Defence spending structure in CEE

Main Categories of Defence Expenditure (%) — 2025e CEE NATO Allies (equipment-first, ordered by equipmetnt share)[75]



75 NATO Defence Expenditure 2025 Report, p.14. https://www.nato.int/content/dam/nato/webready/documents/finance/def-exp-2025-en.pdf

Key Insights from CEE Defence Spending Structure (2024e)

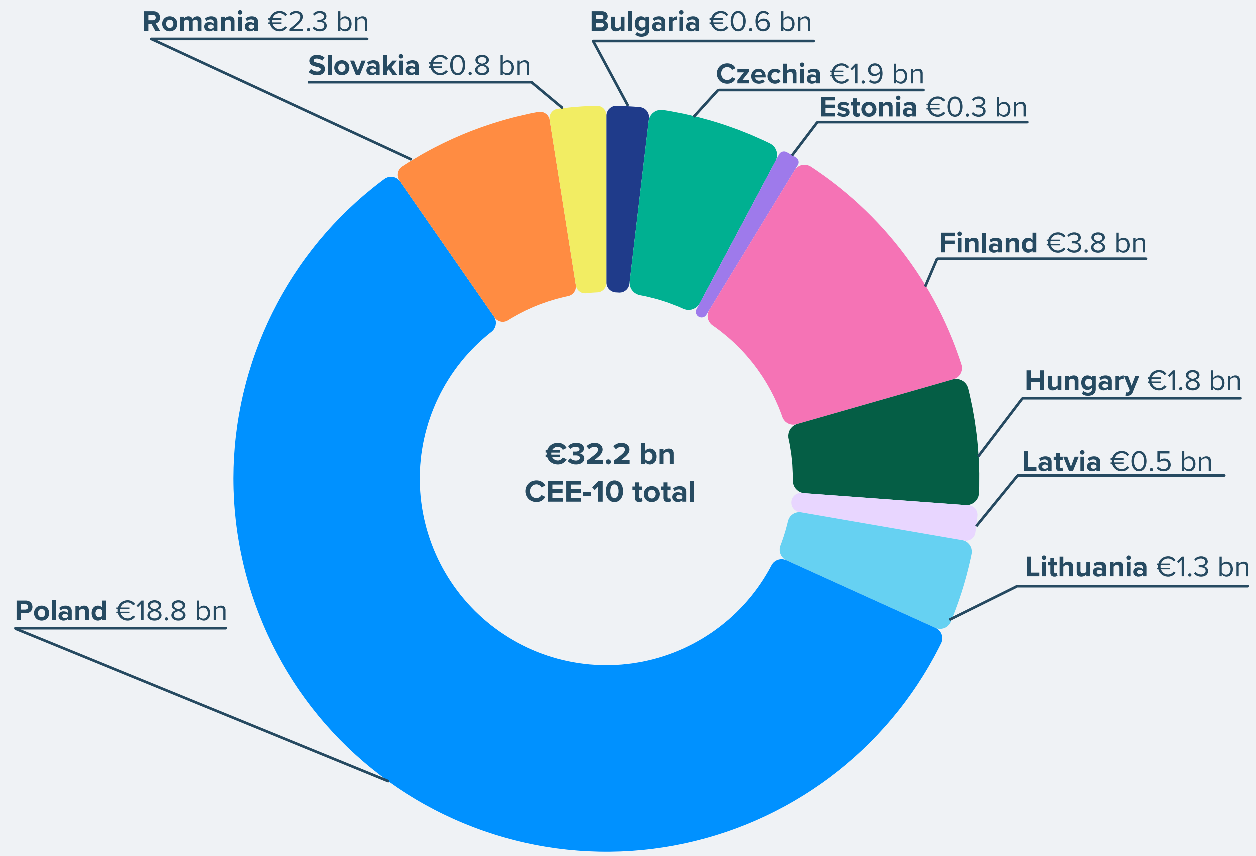
The structure of defence expenditure across CEE reveals clear differences in defence priorities and investment profiles. **Most states in the region continue to allocate a large share of their budgets to personnel and operational costs**, limiting the space available for capability development. Bulgaria, Romania, Latvia, and Slovakia spend over one-third and in Bulgaria's case more than half of their defence budgets on personnel, constraining investment in modernisation. **In contrast, Poland, Finland, Lithuania and Hungary show a distinctly capability-driven posture**, with nearly half of their defence spending directed toward major equipment, positioning them among the highest investors in equipment (by share) not just in the region, but also within NATO at large.[76]

The **Baltic states and Finland** display a unique pattern**: relatively lower personnel costs but elevated operational expenditure**. This likely reflects the rapidness of scaling-up in terms of readiness, training, stockpiling, and sustainvvvvvements in response to the deteriorated security environment since 2022. **Infrastructure spending remains visibly modest across the region, despite growing demands for host nation support, ammunition storage, air defence sites**, and NATO force posture adaptation.

76 NATO Defence Expenditure 2025 Report: https://www.nato.int/content/dam/nato/webready/documents/finance/def-exp-2025-en.pdf

Major equipment acquisitions in CEE

Major Equipment Investment - CEE - 10 (2025e) Absolute values only[77]



The distribution of major equipment investment across the ten Central and Eastern European NATO Allies reveals a **highly asymmetric picture, with Poland alone accounting for over half of all equipment-related spending** in the region.[78] Warsaw's investment (estimated at almost USD 19 billion in 2025) significantly demonstrates Poland's rapid military modernisation and its emergence as NATO's core land-power anchor on the eastern flank. A next tier of contributors, i.e. Romania, Czechia, Hungary and Finland invest between approximately USD 10 billion combined, representing meaningful but still limited weight relative to Poland's scale.

77 Source: NATO Defence Expenditure 2025 Report: https://www.nato.int/content/dam/nato/webready/documents/finance/def-exp-2025-en.pdf Calculations: GLOBSEC

78 NATO, Defence Expenditure of NATO Countries (2014–2025), current prices and exchange rates.

The remaining six Allies together represent less than one-fifth of the region's equipment investment, reinforcing the **structural capacity gap between Poland and the rest of the eastern flank**. While their shares may reflect smaller economies and force structures, the imbalance carries long-term implications: the **region risks becoming strategically dependent on a single primary contributor for deterrence-critical capabilities**. Sustaining current investment levels, and gradually expanding the role of mid-sized Allies, will be essential if the region is to achieve a more robust and balanced capability architecture within NATO.

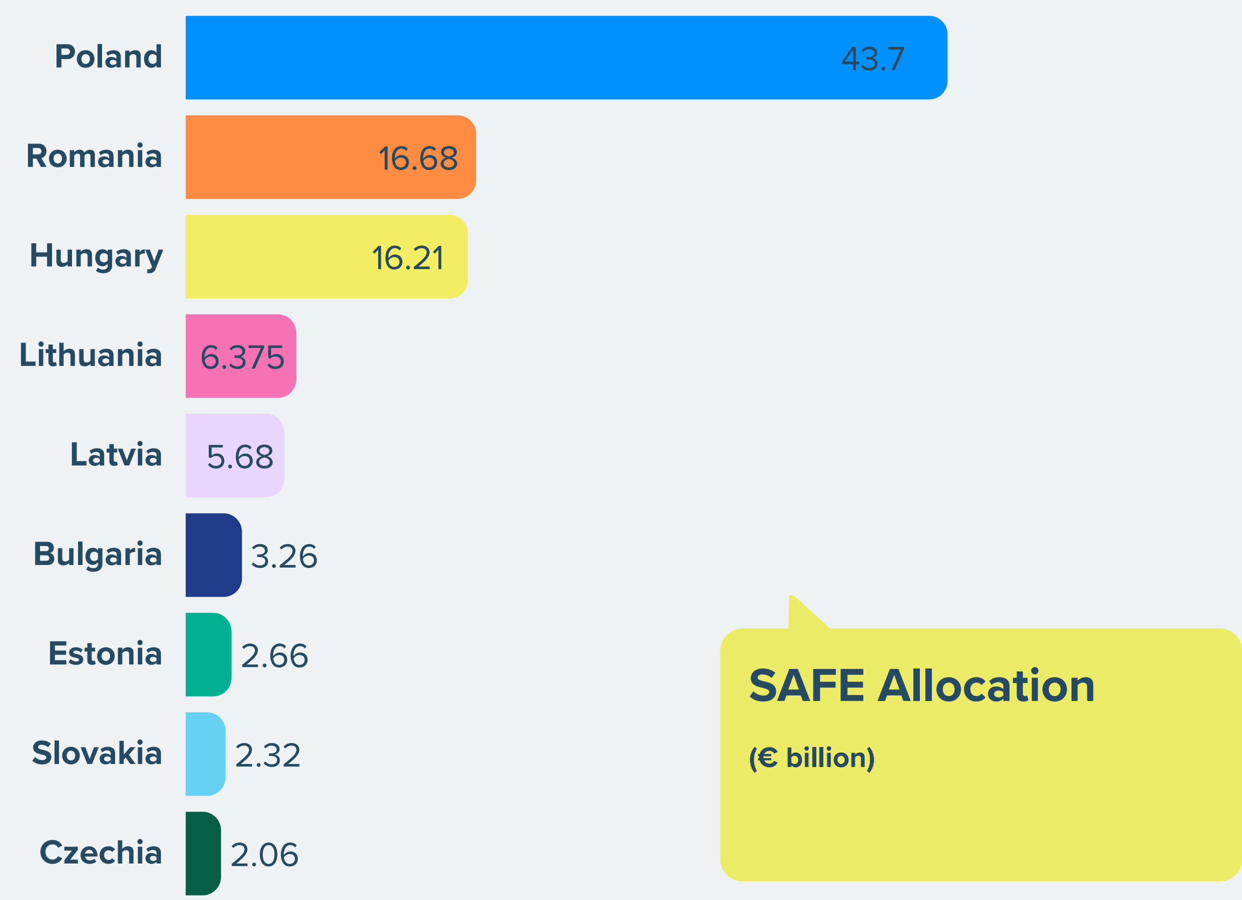
Funding Mechanisms: SAFE (Security Action for Europe)

Following the launch of the Readiness 2030 initiative, the European Commission introduced Security Action for Europe (SAFE)—a defence investment instrument designed to support large-scale procurement and reinforce the European defence industrial base. SAFE provides:

- up to **€150 billion** in long-term loans,
- low-interest financing to enable urgent, large-scale defence procurement.

Several Eastern Flank countries have already secured tentative allocations, although full implementation is expected only after formal clearance in **March 2026**. The numbers shown in the table below refer to the maximum loan amount.[79]

SAFE Loan Allocations for Eastern Flank Countries (€ bn)



(Until the finalisation of the report, the plans submitted by the **Czech Republic** and **Hungary** were still under assessment and cannot be considered approved.)

79 Council of the European Union, Security Action for Europe (SAFE), https://www.consilium.europa.eu/en/policies/safe/

Measuring Investments in Innovation

Between 2021 and 2025, the European Commission placed defence innovation at the centre of its competitiveness strategy, launching multiple initiatives to strengthen research, development, and technology cooperation. To date, approximately **€4 billion** has been invested to enhance Europe's innovation capacity and narrow gaps with global competitors. Russia's war against Ukraine has further accelerated this dynamic by exposing critical capability shortfalls and reinforcing the need for sustained innovation as a foundation of defence preparedness.

Through instruments such as the **European Defence Fund (EDF)** and projects coordinated by the **European Defence Agency (EDA)**, the EU has laid the groundwork for a structured defence innovation ecosystem linking governments, industry, and research institutions. For Eastern Flank countries, participation in these frameworks serves as a key indicator of technological development, industrial maturity, and long-term readiness.

In this context, the European Commission aims to:

- scale up its defence innovation agenda via the EDF, **EUDIS**, and relatedinstruments;
- shift from a research-only approach toward a capability-delivery-oriented innovation ecosystem;
- facilitate access for SMEs and start-ups.

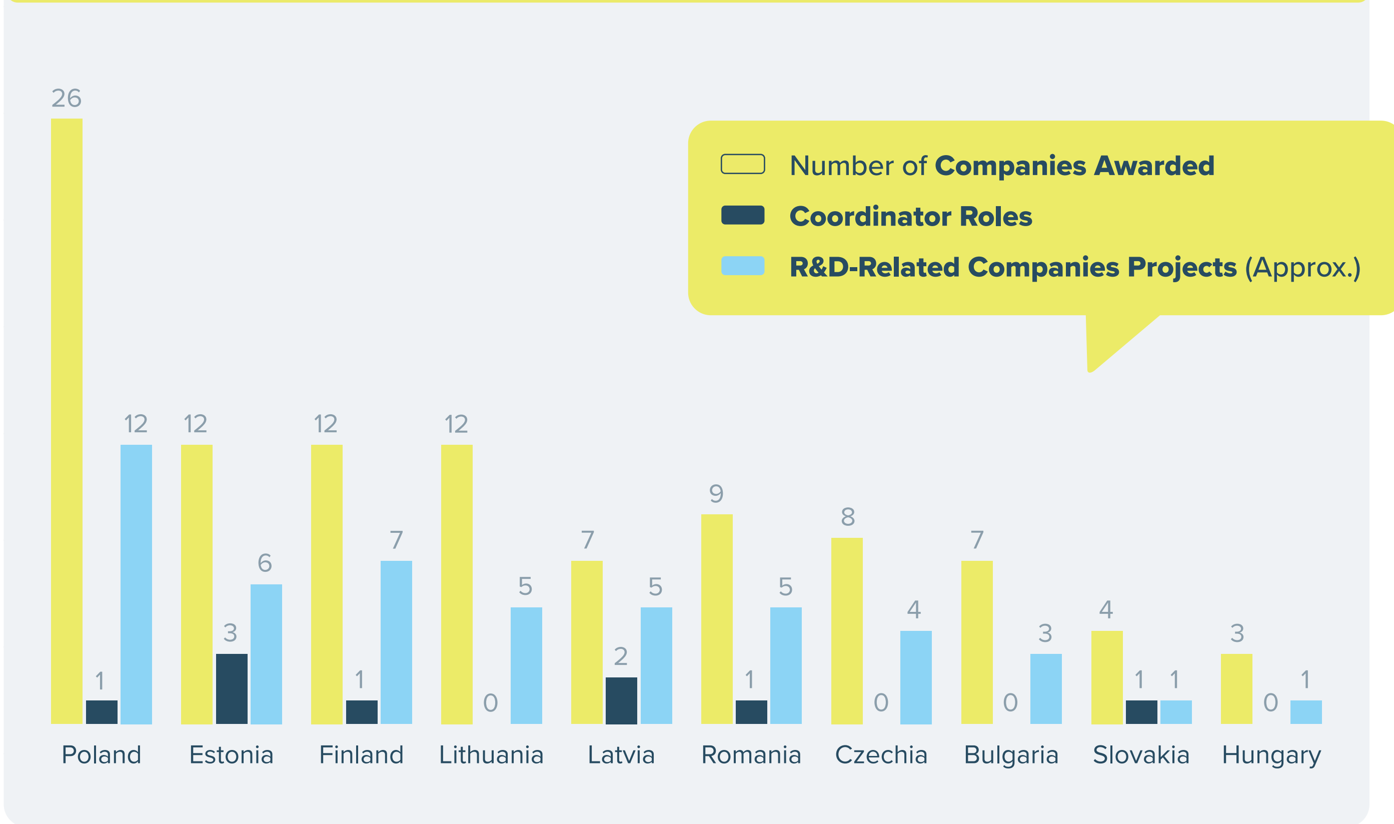
While efforts to integrate SMEs have increased Eastern Flank visibility within EU innovation frameworks, full capability delivery, deeper industrial integration, and consistent SME participation remain uneven. Cross-country comparison is further complicated by divergent accounting practices, varying definitions of "innovation," and the blending of military and dual-use R&D expenditures.

European Defence Fund (EDF) as a catalyst of innovation

Participation in EDF-funded projects provides insight into the maturity of national defence-industrial ecosystems. National regulatory frameworks and administrative support structures play a decisive role in enabling successful participation. Lengthy and complex application procedures often pose barriers—particularly for SMEs and smaller research institutions.

Countries that actively support applicants through dedicated agencies, co-funding schemes, or administrative assistance show higher success rates. **Czechia** stands out in this regard, with government-backed assistance throughout the EDF application process. Where such support is absent, SME participation remains limited.

Assessing participation of Eastern Flank countries in EDF projects related to R&D [80]



80 European Commission, Defence Industry and Space, *Result of the EDF 2024 Calls for Proposals*, https://defence-industry-space.ec.europa.eu/funding-opportunities/calls-proposals/result-edf-2024-calls-proposals_en

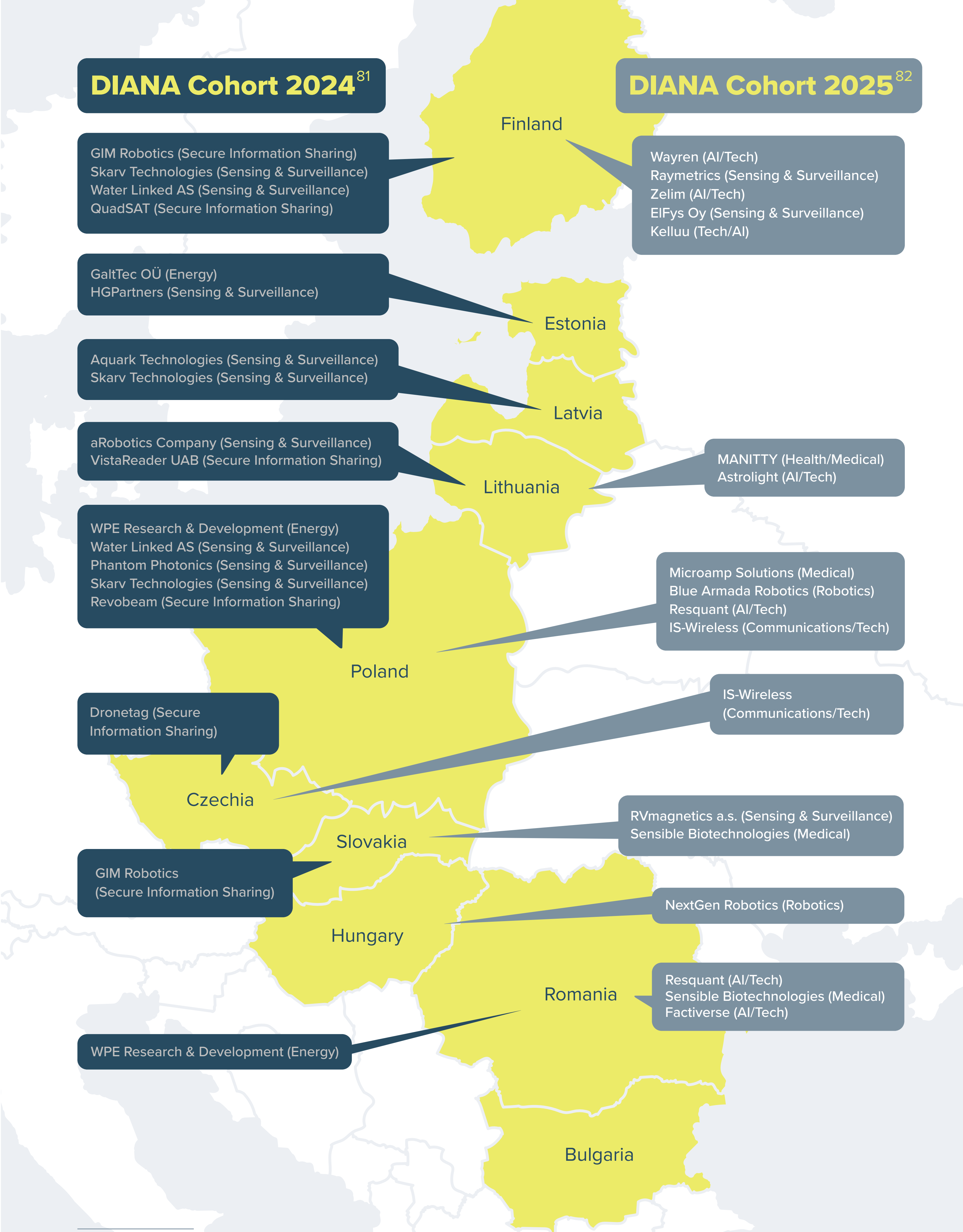
Poland has the largest number of awarded entities and strong participation from technical universities and research institutes, reflecting the scale of its defence-industrial base, but it has secured only **one coordinator role**, indicating limited leadership within EDF consortia. Estonia performs exceptionally well relative to its size, with **12 awarded entities and three coordinators**, driven by its advanced cybersecurity and digital-innovation ecosystem, including actors such as **Cybernetica** and **Talgen**. Finland maintains a balanced presence, with key contributors such as **Patria** and **VTT** involved in multiple R&D projects. Lithuania shows consistent engagement through research institutions, though without coordinator roles, while **Latvia stands out** for its proportionally high number of coordinators (**two**), reflecting a dynamic and research-driven ecosystem despite its smaller scale. Romania and Czechia demonstrate stable participation, largely through universities and national research institutes, whereas **Bulgaria, Slovakia, and Hungary** show more limited involvement, with fewer awarded entities and minimal coordination roles.

Overall, **Poland leads quantitatively**, while **Estonia and Latvia demonstrate the strongest qualitative performance relative to size**, particularly in research intensity and consortium leadership. Repeated participation of specific companies across multiple projects also points to emerging specialisation and growing cross-project expertise within the Eastern Flank.

Complementary View: The NATO DIANA Network

An additional indicator of innovation potential is provided by the **NATO Defence Innovation Accelerator for the North Atlantic (DIANA)**. DIANA connects start-ups and research centres through a network of accelerators and test facilities, supporting projects in artificial intelligence, autonomy, energy resilience, and advanced materials.

Since its launch, Estonia has emerged as a leading hub for start-ups and research centres, with several other Eastern Flank countries steadily strengthening their position as regional technology clusters. The growing volume of applications and selections in 2024–2025 indicates tangible returns on investment in innovation ecosystems.



81 NATO Diana, Accelerator Program, Cohort of Companies in 2024, DIANA | 2024 Cohort of Companies

82 NATO Diana, Accelerator Program, Cohort of Companies in 2025, DIANA | 2025 Cohort of Companies

Estonia, Latvia, Poland, Hungary, and Czechia host DIANA accelerator sites, while all Eastern Flank countries participate through test centres. Poland holds the largest footprint, hosting one accelerator and seven test centres. Romania stands out for application volume, with **88 submissions in 2024**, among the highest across all Allies. Limited public reporting, however, makes Bulgaria's role more difficult to assess.

Overall, these developments show that the Eastern Flank is no longer a passive consumer of defence innovation but is evolving into an **active, distributed innovation corridor** within NATO's transatlantic ecosystem.

Collaborative initiatives EDF and PESCO

The countries of the Eastern Flank have increasingly asserted their role within EU defence frameworks of cooperation, leveraging both funding instruments and multilateral projects to enhance readiness and preparedness across the region. Their participation in EU initiatives and the involvement of their companies reflects a strategic commitment to collective security, addressing both conventional and hybrid threats on the EU's eastern borders.

In this perspective, collaboration can be analysed under two different variables: the European Defence Fund that allows companies across the EU to join consortia with companies from across the EU as well as instruments like PESCO that provide the frameworks in which Member States can work jointly to increase cross-border cooperation and develop capabilities.

EDF: 2024 call as an industrial participation snapshot

In addition to R&D participation patterns, the results of the 2024 EDF call provide a complementary snapshot of broader industrial engagement in EU capability development. In 2024, among the 62 projects selected[83], Poland stands out as the most active participant, accounting for 31 projects, or 22.79% of the total awarded. This confirms Poland's position as the leading contributor from the region, driven by its expanding defence-industrial base and strong integration within EDF consortia.

Other Eastern Flank and regional participants also demonstrated substantial engagement.

83 European Commission, Result of the EDF 2024 Calls for Proposals.

Finland ranked second with **16 projects (11.76%),** while **Estonia** and **Lithuania** each secured **14 projects (10.29%)**, underscoring the growing role of Baltic defence industries in collaborative EU programmes. **Romania**, with **11 projects (8.09%),** and **Latvia** and **Czechia**, each with **8 projects (5.88%),** also maintained an active presence in the 2024 call. **Bulgaria** followed with **6 projects (4.41%)**, and **Slovakia with 4 projects (2.70%),** reflecting more modest but still strategically relevant participation levels.

Poland stands out with

31 projects (22.79%)

Finland ranked second with
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Romania secured
11 projects (8.09%)

Bulgaria secured
6 projects (4.41%)

Estonia and Lithuania each secured
14 projects (10.29%)

Latvia and Czechia each secured
8 projects (5.88%)

Slovakia secured
4 projects (2.70%)

Overall, the distribution of projects demonstrates the strong engagement of Eastern Flank countries in EU defence initiatives. Poland's near-23% share of awarded projects illustrates its leading role, while Finland and the Baltic States collectively contribute a substantial portion of EDF activities. The participation levels broadly mirror the size, readiness, and EU-integration of national defence industries, as well as their ability to form or join transnational industrial consortia under the EDF framework.

Eastern Flank contribution to the Permanent Structured Cooperation

The push towards a readier and better prepared EU in defence has promoted the synchronisation of the EDF funding mechanisms and PESCO. The **Permanent Structured Cooperation (PESCO)** aims at reinforcing cooperation and the development of joint capabilities among EU Member States, and it has seen an active engagement by Eastern Flank countries. The table below shows the projects each country is involved in portraying an interesting map of each country's strategic priorities.

Eastern Flank countries' participation to PESCO[84]

European Secure Software defined Radio (ESSOR)	Poland, Finland
Network of Logistic Hubs in Europe and Support to Operations (NetLogHubs)	Poland, Bulgaria, Lithuania, Hungary, Romania, Slovakia, Finland
Military Mobility	Poland, Bulgaria, Czechia, Estonia, Latvia, Lithuania, Hungary, Romania, Slovakia, Finland
Maritime (semi) Autonomous Systems for Mine Countermeasures (MAS MCM)	Poland, Latvia, Romania
Harbour & Maritime Surveillance and Protection (HARMSPRO)	Poland
Upgrade of Maritime Surveillance (UMS)	Bulgaria
Cyber Threats and Incident Response Information Sharing Platform (CTISP)	Hungary
Cyber Rapid Response Teams and Mutual Assistance in Cyber Security (CRRT)	Poland, Romania, Lithuania, Estonia, Latvia
Armoured Infantry Fighting Vehicle / Amphibious Assault Vehicle / Light Armoured Vehicle (AIFV/AAV/LAV)	Slovakia
Helicopter Hot and High Training (H3 Training)	Romania
Integrated Unmanned Ground System (iUGS)	Poland, Czechia, Estonia, Latvia, Finland
Deployable Modular Underwater Intervention Capability Package (DIVEPACK)	Poland, Romania, Lithuania, Estonia, Latvia
Eurodrone – European Medium Altitude Long Endurance Remotely Piloted Aircraft Systems	Czechia
Counter Unmanned Aerial System (CUAS)	Czechia
Electromagnetic Warfare Capability and Interoperability Programme (JISR)	Czechia, Latvia, Lithuania

Table continues on the next page →

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84 Council of the European Union, Council Decision 2025/1107 of 27 May 2025, L_202501107EN.000101.fmx.xml Accessed in December 2025.

Geometeorological and Oceanographic Support Coordination Element (GMSCE)	Romania
EU Radio Navigation Solution (EURAS)	Poland
Integrated European Joint Training and Simulation Centre (EUROSIM)	Poland, Hungary
EU Cyber Academia and Innovation Hub (EU CAIH)	Romania, Bulgaria
Special Operations Forces Medical Training Centre (SMTC)	Poland, Hungary
Chemical, Biological, Radiological and Nuclear Defence Training Range (CBRNDTR)	Romania
European Union Network of Diving Centres (EUNDC)	Romania, Bulgaria
MSASV (Medium size SemiAutonomous Surface Vehicle)	Estonia, Latvia, Romania
Integrated Unmanned Ground Systems 2 (iUGS 2)	Czechia, Estonia, Latvia, Hungary, Finland
Next Generation Medium Helicopter (NGMH)	Finland
Medical Treatment Facility Role 2 Forward – Capability Development (MTF R2FCD)	Finland

Table continues on the next page →

→ **Poland** participates in the most projects across various domains: communications, cyber, logistics, and maritime, shortly followed by **Romania** involved in up to 9 projects (depending on counting multi-phase projects).

Finland, Czechia, Hungary, Bulgaria participate in 4–5 projects each. Baltic States show smaller but targeted involvement: **Estonia (5), Latvia (5), Lithuania (4).** Finally, **Slovakia** has 3 projects in the 2025 list.

PESCO Capability convergence and fragmentation among Eastern Flank countries

Capability category	Level of convergence among Eastern Flank countries	What this shows for deterrence
Military Mobility & Logistics	Very High	Strong shared understanding that rapid reinforcement is the foundation of deterrence
Cyber Defence & Information Resilience	High	Common focus on countering hybrid and sub-threshold threats
Unmanned & Autonomous Systems	Medium - High	Agreement on relevance, but divergence by domain (land vs maritime)
Maritime Surveillance & Mine Countermeasures	Medium (Geographically clustered)	Regional rather than flank-wide deterrence logic
Training, Medical & CBRN	Medium	Functional specialisation instead of shared ownership
High-End Combat Platforms	Low	No collective EF effort on combat power generation

Eastern Flank cooperation under PESCO converges strongly on enablers of deterrence, while remaining fragmented on combat capabilities themselves.

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Part II

09 Thematic Deep Dives

Contents

About part I

Part I established a baseline assessment of readiness across three interdependent dimensions: operational posture and preparedness, political enablement, and the investment–innovation engine that sustains force generation over time. While these pillars explain whether readiness can be generated and activated, they do not fully capture how readiness performs under domain-specific stress—where bottlenecks, asymmetries, and adaptation pressures tend to concentrate.

About part II

Part II therefore shifts from system-level diagnosis to focused thematic analysis. Each deep dive examines a readiness-critical area where performance is both measurable and consequential: cyber preparedness and hybrid pressure, integrated air and missile defence, defence production capacity, reserve and mobilisation models, and industry lessons from Ukraine. Together, these chapters translate the baseline findings into domain-level insights, highlighting where readiness is consolidating, where it remains fragile, and where structural dependencies could constrain deterrence and defence outcomes.

Cyber preparedness on NATO's Eastern flank: Evaluating threats and vulnerabilities

By **Anushka Kaushik**

Thematic deep dives

NATO's cyber threat landscape is evolving dynamically, shaped by geopolitical instabilities and compounded by technological advances that are facilitating sophisticated cyber-attacks. State-sponsored attacks, particularly in the wake of the Russian war on Ukraine, have intensified with Russian threat actors, both known and with suspected links to the government, carrying out a combination of cyber-attacks such as deploying destructive malware and conducting espionage activities since the invasion.[85] Since the war, critical infrastructure (CI) has been a consistent target of cyber-attacks with more than 40% of destructive attacks aimed at organisations in the CI sector – of note was the malware Industroyer 2 attempting to target a high-voltage electrical substation, thwarted by the Ukrainian authorities with help from the private sector.[86] This was believed to be a new version of Industroyer used in the notorious 2016 Ukrainian electric grid attack that left thousands without electricity. Western governments have also attributed several cyber-attacks to certain Russian military units, said to be targeting NATO and the EU.[87]

Beyond state-backed activity, two broader trends have emerged since the start of the war: cybercriminal networks are exploiting the turbulence to ramp up their attacks, and hacktivist or nationalist hacker groups have become more active.[88] Russian collectives such as Killnet, for example, have publicly taken credit for several operations, including the DDoS attack that disrupted the European Parliament's website in November 2022.[89] Cyber espionage remains a major concern for NATO. Recent industry reports suggest a significant technical evolution in Chinese espionage efforts, moving from easily attributed operations to a greater focus on stealth, with Chinese actors having run successful campaigns against government, military, and economic targets in NATO member states.[90] At the Alliance's 75th anniversary summit held in 2024; the declaration condemned China's malicious cyber and hybrid activities and the threats emerging from its cyber ambitions.[91]

NATO is increasingly being confronted with sophisticated information operations. Over the past decade, these activities have expanded in scale and complexity, underlined by geopolitical tensions and technological advancements through which false and misleading content can be amplified. Adversarial states are integrating cyber tools and influence tactics to erode public trust, weaken democratic resilience, and undermine cohesion within Allies. Industry reports suggest that some cyber espionage actors who primarily focused on covert intelligence have also engaged in information operations.[92]

NATO's Eastern Flank countries have endured sustained waves of cyber-attacks over the years, with the severity heightened by shifting geopolitical dynamics and developments related to Russia's invasion of Ukraine. Their strategic proximity to Russia and Belarus has made them prime targets for malicious cyber activity which is compounded by fragmented cybersecurity capabilities and maturities.

In October 2025, Poland's Minister for Digital Affairs Krzysztof Gawkowski highlighted that of the 170,000 cyber incidents that have been identified in the first three quarters of this year, a significant portion came from Russian actors.[93] Polish officials have reiterated that they are the main targets among NATO states due to their strong support for Ukraine and have alluded to Russian activity being most severe due to it targeting critical infrastructure essential for maintaining life.[94] According to the 2024 Report on the State of Cybersecurity in the Czech Republic, released by cybersecurity agency NUKIB, the cyberattacks by groups operating under Russian intelligence services were the most significant.[95] In early May 2024, various malicious activities in cyberspace were attributed to the Russian Federation

85 https://www.globsec.org/sites/default/files/2025-02/Leveraging%20Artificial%20Intelligence%20for%20NATO%27s%20cyber%20resilience%20-%20Preliminary%20perspectives_web.pdf
86 https://www.globsec.org/sites/default/files/2023-07/Cyber%20Brief%20Russian%20Cyber%20Operations_0.pdf
87 https://www.bbc.com/news/articles/c984zenjkz
88 https://www.globsec.org/sites/default/files/2025-02/Leveraging%20Artificial%20Intelligence%20for%20NATO%27s%20cyber%20resilience%20-%20Preliminary%20perspectives_web.pdf
89 https://cloud.google.com/blog/topics/threat-intelligence/cyber-threats-facing-nato
90 https://www.globsec.org/sites/default/files/2025-02/Leveraging%20Artificial%20Intelligence%20for%20NATO%27s%20cyber%20resilience%20-%20Preliminary%20perspectives_web.pdf
91 https://www.airandspaceforces.com/nato-sounds-alarm-china-space-nuclear-russia/
92 https://cloud.google.com/blog/topics/threat-intelligence/cyber-threats-facing-nato
93 https://www.reuters.com/technology/poland-says-cyberattacks-critical-infrastructure-rising-blames-russia-2025-10-10/
94 Poland says cyberattacks on critical infrastructure rising, blames Russia | Reuters
95 https://nukib.gov.cz/download/publications_en/2024_Report_on_the_State_of_Cybersecurity_in_the_Czech_Republic.pdf

with Czech Republic, Germany, the European Union and NATO condemning cyber espionage attacks - the attribution mentioned a 2023 campaign exploiting a previously unknown vulnerability in Microsoft Outlook.[96]

Slovakia, meanwhile, continues to face a threat landscape that combines cyberattacks, espionage, and disinformation efforts. Ministries and public-sector networks have been repeatedly targeted,[97] while Russian networks have taken advantage of political polarisation to amplify false narratives and undermine institutional trust. Bulgaria and Romania have experienced persistent Russian-aligned cyber operations alongside large-scale disinformation campaigns. Bulgaria has become a notable target owing to political instability, governance vulnerabilities, and historical ties to Russia.[98] A major DDoS attack in October 2022, attributed to Killnet, targeted offices of the President, the Ministries of Defence and Interior, the justice system, and the Constitutional Court.[99] Romania faces similar pressures: frequent DDoS attacks by Russian actors have affected government platforms and sectors such as transportation, health, and energy while influence campaigns to interfere in elections and designed to weaken public confidence in institutions continue to impact the country.[100] Latvia experiences regular DDoS incidents against ministries, state agencies, and public utilities with cyber attackers exploiting human carelessness and technological vulnerabilities through the use of phishing, scanning, weak authentication and targeted delivery of malware.[101] Lithuania encounters some of the highest volumes of malicious activity in the region including Killnet's large-scale DDoS operations against the Parliament, airports, logistics networks, and energy infrastructure. According to the national cyber agency, malicious social engineering aimed at obtaining sensitive information is one of the main causes of cyber incidents in Lithuania.[102]

In the Eastern Flank, hybrid attacks are also becoming more commonplace with a sharp escalation in recent years. These combine cyber-attacks, sabotage, disinformation, and covert influence activities.[103] According to GLOBSEC's 'Russia's Crime-Terror Nexus: Criminality as a Tool of Hybrid Warfare in Europe', between February 2022 and July 2025, these countries have been consistently targeted in a combination of cyber, sabotage, and influence operations.[104] Poland recorded 20 identified incidents, possibly owing to its strategic role as a logistical hub for Ukraine. Attacks included sabotage attempts against rail transport carrying military aid, arson targeting critical infrastructure as well as disinformation and low-level vandalism aimed at polarising public opinion. In Estonia, attacks exploited ethnic tensions within the Russian-speaking minority and targeted public symbols, monuments, and businesses with Latvia seeing similar activity where disinformation efforts aimed at inflaming tensions with Belarusian refugees.[105] Lithuania also faced high-profile sabotage and physical attacks, demonstrating how hybrid campaigns can leverage local criminal actors and foreign recruits for strategic objectives. The Czech Republic and Slovakia recorded nationwide bomb threats targeting schools, while Bulgaria experienced continuous disruptive cyber operations, such as the Killnet DDoS attack in October 2022 mentioned earlier.

The preparedness measures vary significantly across the Eastern Flank countries. Estonia leads in this aspect, championing a whole-of-society approach to cyber defence which emphasises public-private partnerships and collaboration across sectors.[106] Estonia's Cyber Defence Unit, comprising experts from public and private sectors, serves as a reserve force that leverages diverse expertise in times of crisis. Initiatives like the Open Cyber Range project, for example, embed cybersecurity thinking in private companies and the education sector. The country's cyber defence strategy is also bolstered by civil-military coordination in the areas of situational awareness sharing and joint exercises. The Estonian Information System Authority leads critical infrastructure protection efforts, collaborating closely with the military to ensure service availability.[107] Estonia has also developed key legislation supporting data protection and the privacy of citizens. Experts also stress the importance of the fact that Estonia's cybersecurity prioritisation is premised on scientific research and analysis rather than being dependent on changing political whims. There is also strong recognition that cyber stability is the backbone of national security, critical infrastructure, and the delivery of vital services throughout the country.[108]

Finland has adopted a slew of measures including a National Cyber Security Strategy and the establishment of the National Cyber Security Centre to coordinate public-private responses. Finland has prioritised protecting critical infrastructure, improving situational

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96 2024_Report_on_the_State_of_Cybersecurity_in_the_Czech_Republic.pdf
97 https://www.adaptinstitute.org/russian-hackers-have-attacked-several-eu-countries-slovakia-was-also-a-victim/01/07/2024/
98 https://pulaski.pl/wp-content/uploads/2024/10/Reinforcing-NATOs-Eastern-Flank-Security-Overview-of-the-B9.pdf
99 https://therecord.media/cyberattack-disrupts-bulgarian-government-websites-over-betrayal-to-russia
100 https://www.bbc.com/news/articles/cgq18w507dko
101 https://cert.lv/en/2025/02/cert-lv-activity-review-q4-2024
102 https://www.lrt.lt/en/news-in-english/19/2576417/cybersecurity-report-records-more-attacks-against-lithuania?srsltid=AfmBOoq-Ahfx1t6rQ7CkgP7C5pM1G-_M7IdoJi5nrQPgkiJUyp0hpfc3
103 https://www.hybridcoe.fi/publications/hybrid-coe-working-paper-32-russias-hybrid-threat-tactics-against-the-baltic-sea-region-from-disinformation-to-sabotage/
104 https://www.globsec.org/what-we-do/publications/russias-crime-terror-nexus-criminality-tool-hybrid-warfare-europe
105 ibid
106 https://digitalfrontlines.io/2023/08/31/lessons-from-estonias-whole-of-society-approach-to-cyber-defense/
107 https://www.globsec.org/sites/default/files/2024-08/Shaping%20the%20Next%20EU%20Commission%27s%20Priorities%20-%20Addressing%20cybersecurity%20challenges%20and%20policy%20gaps%20chapter.pdf
108 https://www.globsec.org/sites/default/files/2024-08/Shaping%20the%20Next%20EU%20Commission%27s%20Priorities%20-%20Addressing%20cybersecurity%20challenges%20and%20policy%20gaps%20chapter.pdf

awareness, and integrating cyber resilience into national security planning. Civil society engagement and public education initiatives also aim to enhance digital literacy and societal awareness of hybrid threats, and cooperation with NATO, EU partners, and neighbouring states forms a large part of Finland's approach.[109]

The V4 countries have taken varied routes to cyber and hybrid threat preparedness. In Poland, measures include the activating the Charlie-CRP Alert system,[110] expanded cooperation with Ukrainian cyber agencies, and a government plenipotentiary office focused on information security and public education. The Czech Republic and Slovakia have developed national frameworks to coordinate cyber defence across civilian, military, and intelligence authorities, with Slovakia implementing the Action Plan for Coordination of the Fight Against Hybrid Threats (2021–2024) to align national efforts with EU and NATO guidance.[111]

Latvia has established the National Cyber Security Centre and has the NATO Strategic Communications Centre of Excellence in Riga. Latvia also has established the Cyber Defence Unit, part of the National Guard of Latvia, which includes IT specialists from the private sector.[112] Lithuania maintains a Regional Cyber Defence Centre and a Cyber Range both within the National Cyber Security Centre under the Ministry of Defence.[113] Bulgaria's preparedness includes the National Cybersecurity Strategy (released in 2016 as 'Cyber Resilient Bulgaria 2020' and extended in 2023), the Cybersecurity Act of 2018, and coordination through the Cybersecurity Council, with the State Agency for National Security prioritizing mitigation of Russian cyber threats and legal frameworks addressing harmful disinformation.[114] Romania has structured its National Cyber Security System to define roles across civilian, military, and intelligence authorities, regulates foreign software, and integrates cyber defence into its broader national security strategy.

Countries in the Eastern Flank primarily face a pronounced asymmetry between the threat level they confront and their cyber readiness. Due to their proximity with Russia, they are exposed to sustained hybrid attacks on critical infrastructure and government networks yet the capabilities to respond vary significantly across the region. The scale and complexity of cyber and disinformation threats largely exceed institutional capacity, straining national cybersecurity agencies, law enforcement, and public communication systems.

To a large extent, institutional maturity and operational readiness are uneven. Countries like Estonia, with a higher integrated civil-military ecosystem, and Finland have made concerted efforts to build resilience. By contrast, others rely largely on formal strategies and legislation without the operational depth or coordination mechanisms needed for rapid response, leaving gaps in incident detection, attribution, and mitigation. This is exacerbated by political instabilities within states, leading to both delayed reforms and weakening policy continuity.

There are two broader challenges that affect NATO at large and Eastern Flank countries specifically; first, a chronic shortage of skilled cybersecurity personnel acts and will continue to act as an enormous constraint on national capabilities. A survey of European organizations found that 61 % of cybersecurity teams report being understaffed, and 48 % report difficulties recruiting qualified candidates.[115] Second, there is little progress in addressing the larger question on achieving deterrence in the context of cyber defence and warfare. There is less clarity on rules of operations and behaviour in cyberspace, as a domain of operation. Some pressing issues shrouded in ambiguity include identifying actors who could be considered combatants, responding to 'below the threshold' cyber-attacks, and defining rules of engagement.[116] The question of attribution also presents a unique challenge – in cyberspace, attributing a particular attack to a perpetrator is a complex exercise. Legal and jurisdictional hiccups, as well as geopolitical developments, further compound these challenges in pursuing perpetrators. Additionally, while the prevailing view holds that the law of armed conflict applies to cyberspace, there is limited understanding of the practical implications of this conclusion, which are relevant for defining the contours of defensive and offensive operations in cyberspace – an important aspect of cyber deterrence for NATO Allies.

109 https://www.unodc.org/cld/uploads/res/lessons-learned/finlands-cyber-security-strategy_html/Finlands_Cyber_security_Strategy_-_Background_dossier.pdf
110 https://pulaski.pl/wp-content/uploads/2024/10/Reinforcing-NATOs-Eastern-Flank-Security-Overview-of-the-B9.pdf
111 https://www.mosr.sk/49554-en/akcny-plan-koordinacie-boja-proti-hybridnym-hrozbam-predstavuje-milnik-pre-budovanie-odolnosti-statu/
112 https://www.globsec.org/sites/default/files/2024-08/Shaping%20the%20Next%20EU%20Commission%27s%20Priorities%20-%20Addressing%20cybersecurity%20challenges%20and%20policy%20gaps%20chapter.pdf
113 https://www.nksc.lt/en/structure.html
114 https://pulaski.pl/wp-content/uploads/2024/10/Reinforcing-NATOs-Eastern-Flank-Security-Overview-of-the-B9.pdf
115 https://digital-skills-jobs.europa.eu/en/latest/news/european-outlook-isaca-2024-state-cybersecurity-report
116 https://www.globsec.org/sites/default/files/2024-08/Shaping%20the%20Next%20EU%20Commission%27s%20Priorities%20-%20Addressing%20cybersecurity%20challenges%20and%20policy%20gaps%20chapter.pdf

Recommendations

- Prioritise operational readiness over strategy development by reinforcing capabilities to ensure that monitoring, containment, response, and recovery to cyber-attacks is swift. This includes performance on operational indicators such as time to detect intrusions, incident response, continuity of critical services among others.
- Address uneven capabilities across the Eastern Flank to create a baseline of cyber resilience by defining minimum operational capabilities (such as detection, incident response, critical infrastructure continuity etc). This is underscored by the recognition that uneven capabilities create a vulnerability for collective NATO cyber resilience.
- Identify possibilities to regionally pool resources through an operational hub for cyber capabilities like tracking adversarial activity, identifying patterns, and coordinating with national SOCs.
- Strengthen civil-military integration by adopting a common threat picture across government agencies, CI regulators, and operationally relevant civilian actors.

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Defending the Skies over the Eastern Flank in 2025 : IAMD in Spotlight

By Tomáš Nagy

Thematic deep dives

In since 2022, **the past three years have transformed the region's position in European security. As result of Russia's aggression, the CEE region became the front line of allied deterrence.** The air domain plays an increasingly salient role in the whole picture. Repeated Russian incursions into CEE airspace in 2025, from drone overflights in Romania to fighter-jet provocations along the Baltic borders, exposed the vulnerability of NATO's northeast and triggered a shift that is now reshaping the entirety of European defence policy.[117] NATO's initial response was aligned with the current institutional and policy framework. Deployment of assets within the Integrated Air and Missile Defence (IAMD) Rotational Model, and the subsequent launch of the multidomain "Eastern Sentry"[118] activity, demonstrated **that airspace violations are** no longer tolerated and are treated as **potential precursors to escalation.**

States stretching from Finland through the Baltics, Poland, Slovakia and Czechia down to Romania and Bulgaria are the most directly exposed to Russia's opportunistic behaviour, yet they also host some of NATO's most valuable strategic assets when it comes to air and missile defence: the Aegis Ashore Ballistic Missile Defence sites at Redzikowo and Deveselu, the Alliance's forward radar network, and critical infrastructure linking the Baltic and Black Sea theatres.[119] Yet, these are **hardly enough to either deter and defend the region without a credible, interoperable and resilient IAMD posture.**

117 Charlie Edwards, "The Paradox of Russian Escalation and NATO's Response," IISS Online Analysis, September 26, 2025, https://www.iiss.org/online-analysis/online-analysis/2025/09/the-paradox-of-russian-escalation-and-natos-response/

118 Eastern Sentry to Enhance NATO's Presence Along Its Eastern Flank," SHAPE NATO News Releases (Supreme Headquarters Allied Powers Europe), September 12, 2025, https://shape.nato.int/news-releases/eastern-sentry-to-enhance-natos-presence-along-its-eastern-flank/

119 The International Institute for Strategic Studies, Progress and Shortfalls in Europe's Defence: An Assessment, September 3, 2025, "European Integrated Air and Missile Defence: Slow Progress," https://www.iiss.org/globalassets/media-library---content--migration/files/publications---free-files/strategic-dossier/pds-2025/chapters/iiss_progress-and-shortfalls-in-europes-defence_2025_ch-3_integrated-air-and-missile-defence.pdf

Since the NATO Vilnius Summit in 2023[120] , NATO's collective response has moved visibly forward when it comes to the establishment of an adequate IAMD posture. Allied rotations of Patriot and NASAMS batteries to CEE[121] , joint intercept exercises, and combined C2 drills have all become a reality. The June 2025 NATO Defence Ministerial added substance by adopting **new capability targets explicitly prioritising IAMD and long-range strike as twin pillars of deterrence[122].** European allies from France and Denmark to Germany, the Netherlands and Italy have begun repositioning air assets eastward to reinforce the deterrence posture[123]. At the same time, the EU's SAFE defence-loan facility, the European Sky Shield Initiative (ESSI), and other joint funding instruments have created tangible incentives for capability buildup where the need is greatest.

Across the wider CEE region (for the purpose of this report including Finland) **IAMD is arguably no longer a neglected area of defence.** Procurement, industrial scaling, and exercise tempo all suggest that **the region has started to catch up to need of new reality.** Poland has become the anchor of this shift. Its WISŁA programme, based on Patriot systems and the Integrated Battle Command System (IBCS), reached initial operational capability in 2025 and thus it already provides the Alliance with a functioning networked command architecture.[124] Warsaw's NAREW short-range programme, developed in cooperation with MBDA UK, extends this architecture downward to create a basis for a future genuine multi-layered defence[125].

Industrial scaling has followed suit. The expansion of Mesko's production of Piorun MANPADS, the construction of new ammunition and rocket-motor plants, and the localisation of radar manufacturing have turned Poland into a nascent regional supply hub. Finland, newly integrated into NATO, brings a complementary northern capability built around NASAMS, advanced radar networks, and a doctrine honed by decades of operating under constant Russian proximity.

120 "NATO Integrated Air and Missile Defence," NATO – What We Do: Deterrence and Defence (North Atlantic Treaty Organization), February 13, 2025, https://www.nato.int/en/what-we-do/deterrence-and-defence/nato-integrated-air-and-missile-defence/

121 "NATO to Strengthen Eastern Flank Air Defences," Army-Technology.com, June 19, 2023, https://www.army-technology.com/features/nato-to-strengthen-eastern-flank-air-defences/

122 Tomáš Nagy, "NATO Quadruples Its Missile Defenses to Counter Russia," The National Interest, July 1, 2025, https://nationalinterest.org/feature/nato-quadruples-its-missile-defenses-to-counter-russia

123 Claire Mills and Louisa Brooke-Holland, "NATO: Reinforcing Its Eastern Flank," Commons Library Research Briefing (House of Commons Library, UK Parliament), October 13, 2025, https://researchbriefings.files.parliament.uk/documents/CBP-9450/CBP-9450.pdf

124 Poland Declares Full Operational Readiness of Patriot Missile System," Polskie Radio, December 18, 2025, https://www.polskieradio.pl/395/7784/Artykul/3622786,poland-declares-full-operational-readiness-of-patriot-missile-system/

125 "Poland Plows Billions into Narew Air Defense System," TVP World, October 20, 2025, https://tvpworld.com/89572403/poland-plows-billions-into-narew-air-defense-system

Romania has made equally strategic choices. Its decision to add additional Patriot batteries and procure short-range systems such as Spyder and Iron Dome elements diversifies layers and provides very much needed redundancy.[126] Domestic industry is beginning to adapt through partnerships with European primes and new production facilities for ammunition and gun-based systems.[127] The Baltic States and several Central European governments have opted for collective acquisition of IRIS-T and NASAMS batteries under ESSI.

These moves share an essential feature: they translate political prioritisation into tangible capability. **The region's air defence picture is slowly becoming denser, its capacities progressively wider, and its industrial base more active** than at any point since the end of the Cold War. NATO's rotational model adds an outer layer of reassurance, while joint exercises have probably already brought at least some improved C2 cohesion. Altogether, signs of (long absent) strategic direction of CEE are finally becoming visible.

Yet, significantly more work is needed. **The current IAMD posture on the eastern flank still rests on fragile foundations: diverse procurement, limited interoperability, inadequate stockpiles, and a thin sustainment base.**

On one side procurement diversity was inevitable given time pressure, but on the other side, it also risks creating operational issues for the future. The region now fields or will shortly field a rather eclectic mix, consisting of: American Patriot/IBCS, German IRIS-T, Nordic NASAMS, Israeli Spyder/ Barak /Iron Dome, and a variety of national short-range systems. Without a common battle-management layer, these assets cannot generate the seamless air picture which hugely contributes to the quality of layered air defence. Poland's IBCS adoption offers a promising model, but few others have followed suit to date according to the publicly available data. Interoperability and integration standards will determine whether NATO's IAMD becomes a truly coherent system or will remain a collection of sub-systems.

The second structural gap concerns economic sustainability of air defence. High-end interceptors are still expensive, slow to produce and often used against low-cost threats. **The cost-exchange imbalance exposed in Ukraine applies equally to a potential future model situation where the eastern flank is on the defending side.[128]** Without parallel investment in low-cost "cheap-kill" solutions, like automatic cannon with programmable rounds, loitering interceptors, electronic warfare and directed-energy prototypes, **our stockpiles based on existing interceptor models could be depleted early** in an actual crisis where the ambition runs beyond the mere "testing and exposing" by Russia. Regional industry is expanding, but component bottlenecks and dependence on external (U.S. or Israeli) suppliers tend to remain. The absence of a coherent European plan for munitions, sensors and propulsion means that, **despite new spending impetus, the re-supply timelines could be a serious weak-point** in an eventual protracted conflict.

A third weakness lies on the offensive side of the IAMD equation, i.e. the capacity to strike "left of launch." While **CEE states have prioritised defence, few possess long-range precision-strike systems able to impose costs on adversary missile forces.** Only a handful of European allies can reach deep enough into Russian territory to disrupt launch preparations or logistics. **Deterrence through denial** (NATO's preferred doctrine) **will not be sufficiently capacitated if the region cannot also threaten retaliation through sufficient precision strike capabilities.**

Finally, the resilience of command, control and logistics infrastructure remains uncertain. Fixed radar sites, battle-management nodes and ammunition depots are visible and vulnerable. **Plans for dispersion, mobility and redundancy likely exist in conceptual forms but are rarely exercised in practice.** True resilience would require hardening, camouflage, rapid relocation capability and availability of spares — none of which faces an easy task in matching the tempo of modern missile warfare.

Patterns emerge behind the progress

Three broader patterns emerge from this uneven landscape. First, the principle of layering has become doctrinally accepted. **The region has moved beyond the illusion that one system can protect it.** Essentially every national modernisation plan now recognises the need for multi-tier defence and sensor fusion. Second, industrial policy is re-emerging as strategy. Poland's rapid scaling, Romania's new facilities, and the Baltic-V4 discussions on maintenance hubs all point to a recognition that **deterrence rests as much on production capacities as on force posture.** The SAFE fund and other EU instruments further reinforce this logic. Yet, in late 2025 it is still difficult to predict how successful these initiatives will turn out to be in bringing real progress to the areas where they are the most need.

Third, operational learning from Ukraine and from allied exercises has reshaped priorities. **The emphasis has (rightly) shifted toward volume, mobility and resilience,** i.e. the ability to sustain operations against drone swarms, missiles with an increasingly diverse flight patterns and electronic warfare caused disruptions. The past years of air warfare in Ukraine show that

126 Seth J. Frantzman, "Romania Selects Rafael's Spyder Air Defense System," Breaking Defense, July 22, 2025, https://breakingdefense.com/2025/07/romania-selects-rafaels-spyder-air-defense-system

127 "Rheinmetall to Build Ammunition Plant in Romania Amid EU Defence Push," Balkan Insight, November 3, 2025, https://balkaninsight.com/2025/11/03/rheinmetall-to-build-ammunition-plant-in-romania-amid-eu-defence-push/

128 Mark Hvizda, Bryan Frederick, Alisa Laufer, Alexandra T. Evans, Kristen Gunness, and David A. Ochmanek, Dispersed, Disguised, and Degradable: The Implications of the Fighting in Ukraine for Future U.S.-Involved Conflicts (RAND Corporation, RR-A3141-2), May 22, 2025, https://www.rand.org/content/dam/rand/pubs/research_reports/RRA3100/RRA3141-2/RAND_RRA3141-2.pdf

sustainment is at least as relevant as the pursuit of high-end interceptors.[129]
These are meaningful trends and signs of progress. But their overall benefit **will depend on whether political coordination can keep pace with technological and industrial momentum.** Interestingly, at least so far, cooperation inside NATO and the EU seem to remain stronger than cooperation within the CEE region itself. Bilateral and trilateral initiatives exist but are not yet systematic. The absence of a formal regional roadmap for interoperability, training, and maintenance means that valuable synergies still go potentially unrealised.

The Strategic Outlook for IAMD in CEE

Deterrence on the eastern flank remains problematic. The region has shifted to a period with considerable constructive momentum for air defence, yet vulnerabilities clearly persist. Russia's missile arsenal remains large, diversified, combat-proven and unlikely to be depleted soon in any conflict they choose to pursue. Its doctrinal reliance on long-range fires means that any confrontation would quickly test the coherence of NATO's air and missile defences.

Integration, therefore, will be the decisive variable. **The coming years must bring increased effort in converting parallel national modernisations into an interoperable IAMD architecture.** Quantity will help a lot, but quality of integration will decide whether our ambitions are met.

Europe's defence industrial base must now be treated as strategic infrastructure in every sense of the word. Without assured access to critical components for our future sensors, seekers, motors and warheads, current procurement spikes cannot translate into sustained defence output. A deliberate European effort is needed to synchronise orders, pool R&D and maintain surge capacity for future planning cycles.

Finally, public communication and political discipline will matter increasingly. Expectations raised by high-profile deployments and headlines about new systems must be matched by honest messaging about what these defences can and cannot do. **The eastern flank will always be exposed to some degree of vulnerability, but the objective is not invulnerability but credible deterrence** and visible preparedness. Those qualities will mitigate the rational potential for any opportunistic aggression against us.
The trajectory is clearly positive, but the outcome still open. The eastern flank's IAMD buildup since 2022 is a tentative success, but it must further evolve to be a sustainable success. While this is likely an indefinite process, its current stage is surely an important one for setting the pace and modalities in the long run.

129 Jen Judson, "UK Commits to Mass Production of Ukrainian-Made Interceptor Drones," Breaking Defense, September 23, 2025, https://breakingdefense.com/2025/09/uk-commits-to-mass-production-of-ukrainian-made-interceptor-drones/

Recommendations

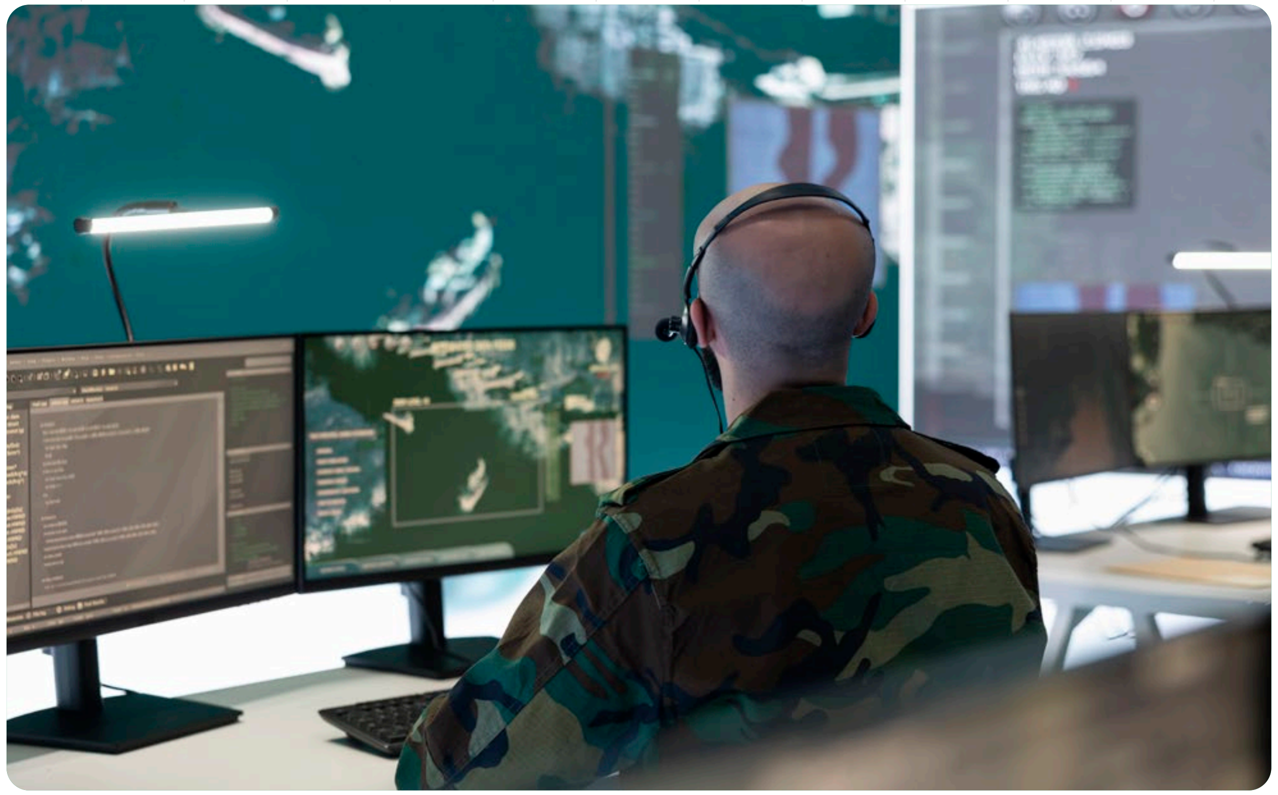
- Accelerate integration of national C2 systems into NATO's IAMD network. Adopt open architectures similar to IBCS, ensuring cross-border data exchange and real-time common air pictures across the region.
- Invest in affordable "cheap-kill" layers. Prioritise mobile gun-based systems, programmable ammunition, counter-UAS solutions and directed-energy prototypes to preserve high-end interceptors for strategic threats.
- Establish a CEE-centered IAMD coordination forum. Create a standing regional body linking defence ministries and industries to harmonise procurement roadmaps, maintenance hubs and training cycles.
- Acquire limited offensive capabilities for "left-of-launch" deterrence. Encourage cooperative programmes for precision-strike missiles and ISR that can disrupt adversary launch nodes and logistics.
- Harden and disperse C2 and sensor networks. Invest in mobility kits, redundant communication paths and rapid-reconstitution plans to ensure continuity under attack.
- Continue in embedding IAMD objectives into EU funding instruments. Ensure that SAFE-fund loans and other EU mechanisms explicitly prioritise air-defence integration and industrial sustainment in CEE and Finland.
- Expand joint exercises and testing activities in the region. Integrate IAMD scenarios into all major NATO and EU drills, with CEE states not only participating but leading in scenario design and hosting.
- Coordinate public messaging on expectations. Communicate clearly that IAMD is a deterrent and damage-limitation tool, not an impenetrable shield, to sustain public and political support for long-term investment.
- Sustain momentum beyond 2029. As current capability targets mature, launch a follow-on phase focusing on interoperability, replenishment, and offensive-defensive balance to prevent complacency once the first wave of systems is delivered.

Defence Production Capacity on NATO’s Eastern Flank

By **Martin Sklenár**

Thematic deep dives

The geopolitical landscape, seismically altered by the 2022 full-scale invasion of Ukraine, has catalyzed a profound and irreversible transformation of the defence-industrial base (DIB) across the ten subject nations: Finland, Estonia, Latvia, Lithuania, Poland, Czechia, Slovakia, Hungary, Romania, and Bulgaria. This analysis finds that the region’s production output is in a state of unprecedented, demand-driven expansion. However, this expansion is not uniform. A clear “multi-tier” capacity map has emerged:

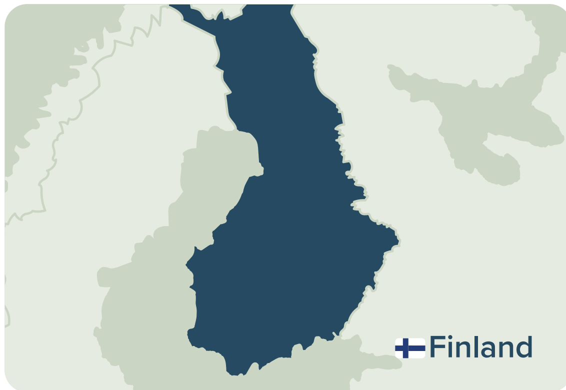


Industrial Powerhouses

These nations leverage a combination of massive state-led investment (Poland) and agile, expansive private-sector conglomerates (Czechia) to pursue full-spectrum industrial output, from ammunition to main battle tanks.

The Nordic Anchor

A high-tech, specialized producer (Patria, Nammo) focused on next-generation systems and multinational cooperation (e.g., the CAVS program).



The JV Model

A unique state-directed strategy of building a new, state-of-the-art DIB from the ground up, primarily through joint ventures with foreign giants (notably Rheinmetall).

The Niche Innovators

Lacking heavy industry, these nations focus their capacity on high-impact, dual-use technologies such as C4ISTAR, unmanned systems (UAVs), and cyber.

The Revitalizing South

These countries are leveraging significant, though aging, state-owned industrial assets, primarily in ammunition and MRO (Maintenance, Repair, Overhaul), to meet critical wartime demand while seeking investment for modernization.

Overall, the region's combined capacity is shifting from a post-Cold War disposition of "just-in-time" procurement to a "just-in-case" industrial footing. The primary bottlenecks are no longer just political will or finance, but the physical constraints of supply chains, skilled labor, and raw materials (e.g., nitrocellulose for propellants). The region has unequivocally moved from being a consumer of security to a critical producer of Europe's defence capabilities.

Introduction: The Geopolitical Imperative

The post-Cold War "peace dividend" era on NATO's Eastern Flank has definitively ended. The primary driver for the current surge in defence production is a fundamental realignment of national security strategy. This realignment is quantitatively demonstrated by the sharp increase in defence expenditures, which provide the top-level "demand signal" to industry.

While the NATO-stipulated 2% of GDP on defence was once a ceiling, it is now universally treated as a floor. This fiscal commitment is the prerequisite for any industrial expansion. This analysis assesses the supply-side response to this new reality. It moves beyond budgetary figures to examine the tangible output and capacity of the DIB, comparing national strategies, key industrial players, and specialization domains.

Overarching Trends & Comparative Analysis

Before assessing each nation, it is crucial to identify the macro-trends shaping the entire region's industrial output.

- The "Double-Demand" Signal: The DIB is being simultaneously tasked with two monumental efforts: 1) Supplying Ukraine with vast quantities of equipment (often Soviet-caliber) and 2) Restocking and modernizing their own national forces with NATO-standard equipment.
- Ammunition as the Pacing Item: The single most critical production domain is ammunition, specifically 155mm artillery shells. The war in Ukraine has exposed a vast under-capacity across NATO. Consequently, the largest capital investments in the region are directed at new or expanded ammunition plants (e.g., in Slovakia, Poland, Hungary, and Lithuania).
- The Three Models of Industrial Strategy: The 10 nations demonstrate three distinct approaches to building capacity:
- State-Led (Poland): Centered on a state-owned giant (PGZ), using massive public funds to drive domestic production and technology transfer.
- Private-Led (Czechia): Dominated by a private conglomerate (Czechoslovak Group - CSG) that operates with venture-capitalist agility, acquiring companies and scaling production internationally.
- Joint-Venture-Led (Hungary): A state-directed strategy using JVs with foreign partners (Rheinmetall) to "greenfield" an entire advanced-manufacturing base.

Comparative Defence Industry Models & Key Players (2025)

Country	Dominant Model	Key National Champion(s)	Primary Production Focus
Poland	State-Led	PGZ (Polska Grupa Zbrojeniowa)	Heavy Armor, Artillery, Air Defence
Czechia	Private-Led	Czechoslovak Group (CSG)	Heavy Industry, Artillery, Small Arms
Finland	Public/Private	Patria, Nammo (co-owned)	Armored Vehicles, Ammo, C5ISTAR
Hungary	JV-Led	Rheinmetall Hungary Zrt.	Armored Vehicles, Ammo, Electronics
Slovakia	Private-Led	CSG (Slovakia), ZVS	Artillery Systems, Ammunition
Romania	State-Revitalization	ROMARM, Aerostar	Ammunition, MRO, Aircraft
Bulgaria	State-Revitalization	VMZ Sopot, Arsenal	Ammunition (Soviet-cal), Small Arms
Lithuania	Niche / JV	Rheinmetall JV, Monopulse	Ammunition (future), UAVs, C4I
Estonia	Niche / Dual-Use	Milrem Robotics (acquired), Threod	Unmanned Systems, Cyber, C4I
Latvia	Niche / MRO	FSDI Latvia (Federation)	MRO, UAVs, Light Vehicles

National & Regional Capacity Assessment

Central European Partners

Slovakia

Slovakia's DIB is deeply integrated with Czechia's, primarily through CSG, which controls key assets.

Production

Its primary independent contribution is in artillery systems, notably the Zuzana 2 self-propelled howitzer, which has proven effective in Ukraine. As noted, its ZVS Holding is a cornerstone of Europe's 155mm shell production.

Slovakia is a key specialized producer, particularly in artillery and ammunition, leveraging its industrial heritage as part of the larger Czecho-Slovak industrial ecosystem.

Hungary

Hungary is executing the region's most unique industrial strategy: a "greenfield" development via joint ventures. The state has partnered with Germany's Rheinmetall to build a new DIB from scratch.

Production

This includes a state-of-the-art factory in Zalaegerszeg to produce the Lynx KF41 Infantry Fighting Vehicle. A second massive facility in Várpalota is being built for ammunition production (artillery, tank, mortar).

R&D

The partnership extends to R&D, with Hungary co-financing the development of the next-generation Panther KF51 main battle tank.

Hungary is "leapfrogging" the need to modernize legacy plants. It is trading sovereignty in its DIB for rapid access to top-tier technology and production capacity.

The Industrial Powerhouses

Poland

Poland's strategy is one of massive scale, backed by a defence budget approaching 5% of GDP and a $131 billion "Technical Modernization Plan." The state-owned Polska Grupa Zbrojeniowa (PGZ), a conglomerate of over 50 companies, is the primary vehicle.

Production

Capacity is expanding across all domains. Recent investments include over €700 million for the "Narew" short-range air defence system and over €560 million for new heavy-caliber ammunition production lines.

Technology Transfer

A key strategy involves massive foreign procurement (e.g., K2 tanks and K9 howitzers from South Korea, Abrams from the U.S.) with explicit clauses for "Polonization"—the transfer of technology and establishment of domestic production and MRO lines.

Poland is building the largest and most powerful land-force DIB in Europe. Its capacity is designed for high-intensity warfare, with a focus on heavy armor, artillery, and layered air defence.

Czechia

The Czech DIB is dominated by the privately-owned Czechoslovak Group (CSG), which has ambitions to become Europe's second-largest defence manufacturer. Its strategy is one of agile acquisition and vertical integration.

Production

CSG's subsidiaries (e.g., Excalibur Army, Tatra Trucks) excel at heavy vehicle manufacturing and modernization. They are a world leader in "refurbishing" and upgrading Soviet-era platforms (T-72s, DANA howitzers) and producing new NATO-standard systems.

Ammunition

CSG is a European leader in ammunition. Its Slovak subsidiary, ZVS Holding, is expanding 155mm shell production to a planned 360,000 rounds annually. In a significant move, CSG is also co-producing ammunition in Ukraine and building a new 155mm plant in Iowa, USA, demonstrating its global reach.

The Czech model is highly commercial, flexible, and integrated. It possesses a deep industrial heritage that allows it to bridge the gap between Soviet-era and NATO-standard equipment, a capability of immense strategic value.

The Nordic Anchor

Finland

As a new NATO member, Finland brings a sophisticated, high-tech DIB. The "Nordic Partnership" between Finland (owning 50.1% of Patria) and Norway (Kongsberg owning 49.9%) is central.

Production

Patria is seeing explosive growth, with Q3 2025 sales up over 50% year-on-year. Its flagship product is the Patria armored vehicle, which forms the basis of a 7-nation consortium (including Germany and Sweden), creating a powerful, interoperable land platform. Finland is also a partner in the F-35 program, with Patria building assembly facilities for F-35 airframes.

Ammunition

Finland co-owns Nammo with Norway, one of Europe's four critical ammunition producers. This gives it a secure, sovereign supply of munitions.

Finland's DIB is a model of high-tech specialization and multinational cooperation. Its capacity is not in mass-producing heavy tanks but in leading-edge, interoperable systems.

The Southeastern Flank

Bulgaria

Bulgaria's DIB, centered on firms like VMZ Sopot and Arsenal, has a long history of producing Soviet-caliber ammunition, small arms, and anti-tank weapons.

Production

The industry is a critical, if often unacknowledged, supplier to Ukraine. Its capacity for 122mm/152mm shells and other Eastern-bloc consumables is vital.

Bulgaria's DIB is a legacy powerhouse. While lacking in high-tech NATO-standard systems, its capacity to produce non-stop "consumables" for the war in Ukraine makes it strategically essential.

Romania

Romania is focused on revitalizing its large, state-owned industry, led by ROMARM and aerospace giant Aerostar.

Production

Recent export figures (€864 million in 2024) indicate significant output, primarily in ammunition (both NATO and Soviet calibers), small arms, and MRO. Aerostar is the regional hub for F-16 MRO, a critical new capability.

Romania's capacity is substantial but in need of modernization. It is a key supplier of "consumables" (ammunition) for the war in Ukraine while it seeks JVs to modernize its vehicle and aerospace lines.

The Niche Innovators

The Baltic States

Estonia, Latvia, and Lithuania lack a heavy industrial base. Their strategy is one of asymmetric, high-tech innovation.

Production

Their capacity is in non-kinetic and next-generation systems. Estonia's Milrem Robotics (now majority-owned by UAE's EDGE Group) is a world leader in ground-based unmanned vehicles. All three nations excel in C4ISTAR, cyber defence, and specialized UAVs (e.g., Lithuania's Monopulse).

Investment

The war has boosted private investment in their tech-defence sectors. To secure "hard" production, Lithuania is also partnering with Rheinmetall to build a new 155mm ammunition plant on its soil.

The Baltic states demonstrate that industrial capacity is not just about steel. Their output in unmanned systems, sensors, and cyber provides a critical, force-multiplying capability for all of NATO.

Overall Assessment of Capacity & Bottlenecks

While the top-line revenue figures for regional defence contractors suggest a boom, a forensic analysis of production output versus operational requirement reveals a persistent and dangerous **"capacity gap."**

The region has successfully transitioned from "peace-time maintenance" to "ramp-up," but it has not yet achieved "war-time mass production." The fundamental finding of this assessment is that current industrial output is barely sufficient to sustain the consumption in Ukraine, leaving almost zero excess capacity for the rapid restocking of NATO's own depleted magazines.

Quantitative Analysis: The Artillery Disconnect

The most critical metric for assessing regional capacity is the production of 155mm artillery shells, the "currency" of the current conflict.

- **The Requirement:** Operational data indicates that to sustain a defensive stalemate, Ukraine requires approximately **75,000 shells per month** (2,500 per day). To conduct offensive operations, this requirement jumps to **200,000+ per month.**[130]

- **The Capacity (2025):** The European Union has set a target to reach a production capacity of **2 million shells annually** by the end of 2025. However, this is an aggregate figure. The specific contribution of the Eastern Flank is estimated to be only **20-25%** of this total.[131]

- Real-World Output: **Czechoslovak Group (CSG)**, the region's largest private producer, targets an initial output of **100,000 155mm rounds** plus **50,000 105mm rounds** annually through its Ukrainian licensing partnerships, while its Slovak subsidiary ZVS Holding is-expanding domestic capacity to **360,000 units** over the coming years.[132]

- The Gap: Even if the optimistic EU-wide target is met, it equates to ~166,000 shells per month. If the Eastern Flank contributes ~40,000 of that, it covers less than half of the defensive daily usage rates on the front.

130 Watling, J., & Reynolds, N. (2024). Ukraine at War: Paving the Road from Survival to Victory. Royal United Services Institute (RUSI). (Estimates based on AFU consumption rates)
131 European Commission. (2024). ASAP: Act in Support of Ammunition Production. EU Press Corner
132 Czechoslovak Group (CSG). (2025). "CSG Launches Licensed Production of Large-Caliber Ammunition in Ukraine." CSG Press Release, October 30

- Restocking Timeframe: Given that NATO stockpiles are at historical lows, at current surplus rates, it will take an estimated 10-15 years to replenish national inventories to Cold War levels.[133]

Key Bottlenecks: The "Iron Triangle" of Constraints

The primary constraints on further expansion are no longer financial. With Poland allocating **4.7% of its GDP** to defence in 2025, the liquidity problem is solved.[134] The constraints are now physical and structural, forming an **"Iron Triangle": Raw Materials, Skilled Labor, and Supply Chain Lead Times.**

Raw Materials:

The Energetics Crisis The single most severe choke point is energetics: the propellants (gunpowder) and explosives (TNT/RDX) needed to fill shells.

- **The Nitrocellulose Dependency:** The production of nitrocellulose (the key ingredient in propellant) relies heavily on **cotton linters**. Armin Papperger, CEO of Rheinmetall, has highlighted that China controls approximately **70% of the global supply** of cotton linters, creating a systemic vulnerability.[135]

- **The Shortfall:** Analysis by the **European Policy Centre (EPC)** indicates that while Europe requires approximately **20,000 tonnes** of nitrocellulose annually to meet its shell targets, current domestic capacity hovers between **4,500 and 10,000 tonnes.** This leaves a structural shortfall of at least **10,000 tonnes**, necessitating imports that are vulnerable to geopolitical restriction.[136]

- **Book-to-Bill Ratio:** Companies like **Nammo** report that their order backlogs are growing faster than their ability to source energetics. In its 2024 reporting, Nammo showed a book-to-bill ratio of **1.8,** meaning for every €1 of product shipped, €1.80 in new orders was received, compounding the backlog.[137]

133 Center for Strategic and International Studies (CSIS). (2024). Empty Bins in a Wartime Environment: The Challenge to the U.S. Defence Industrial Base
134 Polish Ministry of Finance. (2024). Draft Budget Act for 2025. (Confirming 4.7% GDP allocation including Armed Forces Support Fund)
135 Financial Times. (2024). "Europe's gunpowder supply at risk from China cotton dependance." FT.com, April 8. (Citing Rheinmetall CEO Armin Papperger)
136 European Policy Centre (EPC). (2025). Running on Empty: The Chemical Shortage Undermining European Defence. EPC Policy Brief, June 18.
137 Nammo AS. (2024). Annual and Sustainability Report 2023. (Data regarding order reserve increase of 71% vs

Skilled Labor:

The Demographic Cliff The most intractable long-term bottleneck is the workforce. The Eastern Flank is facing a "demographic cliff" that coincides with the need for industrial expansion.

The Poland Case Study:

- The Statistic: To fulfill its "Technical Modernization Plan," the Polish defence sector requires **250,000 new workers** by 2035. This includes specific shortfalls of **90,000 arms industry specialists** and **77,000 supply chain personnel.**
- **The Reality:** Poland's working-age population is projected to shrink by **800,000** over the same period.[138]
- **Vacancy Rates:** Vacancy rates for specialized roles (welders, CNC operators) in Polish and Czech manufacturing are hovering near **40%.**

The "Grey Gap": State-owned giants like Bulgaria's **VMZ** or Romania's **ROMARM** face a retirement crisis. A significant percentage of their workforce is over 55, with a "lost generation" gap of engineers who did not enter the sector between 1995 and 2015.[139]

Supply Chain:

Increased investments to defence industry scale-up are welcome, but they cannot buy time. Lead times for capital equipment have blown out significantly.

- **Machine Tools:** High-end 5-axis CNC machines (critical for milling aerospace parts and precision guidance components) now have lead times of **12 to 18 months**, up from 4-6 months pre-2022.
- **Example: CSG's** expansion into the US market (the Iowa Army Ammunition Plant) aims for a capacity of 432,000 shells annually, but the facility is not expected to be fully online until **2029**.[140] Similarly, **Rheinmetall Hungary's** Várpalota complex represents one of the fastest "greenfield" executions in the region. Yet, from the foundation stone (2023) to full-rate 155mm production (target 2026), the timeline remains a minimum of **36 months**.
- This confirms that decisions made *today* will not impact the battlefield until **late 2027 or 2028**.

sales increase of 23%)

138 Deloitte. (2025). CE Economic Outlook: Defence Sector Needs Workforce. (Cited in Warsaw Business Journal, June 26, 2025)

139 ibid

140 Defence News. (2025). "US Army Partners With Czech Company To Build Iowa Plant." *Defence News*, August 25.

National Defence and Reserve Systems in Finland, Poland, and Lithuania

By **Dominika Nagyová**

Thematic deep dives

Introduction

For decades, European states assumed that large-scale war on the continent was unlikely to happen, and that smaller, technologically advanced and rapidly deployable forces would be sufficient. However, recent security developments, particularly the Russian invasion of Ukraine, have exposed **major shortcomings in European defence**, including **military inventory gaps** and a renewed recognition that **technology cannot replace personnel** in high-intensity conflict.[141] At the same time, these developments have revealed additional weaknesses, including the **high average age of military personnel**, **manpower shortages** within the armed forces, and the **rising costs** associated with maintaining them. As a result, many European governments have revisited or expanded conscription systems to strengthen manpower and deepen reserve capacity either through improving existing service frameworks, reintroducing conscription, or developing new voluntary defence structures.

In this broader European context, countries such as Finland, Poland, and Lithuania have adapted their national defence models to **strengthen reserves**, **improve societal resilience**, and **ensure rapid mobilisation capability**. As will be demonstrated in this case study, while each country approaches national defence differently: Finland relying on universal conscription, Poland on voluntary preparedness, and Lithuania on a hybrid system of conscription and voluntary service – common objectives include maintaining a trained reserve, ensuring operational readiness, and developing incentives to foster public support for defence efforts. This case study

141 https://carnegieendowment.org/research/2024/07/europes-conscription-challenge-lessons-from-nordic-and-baltic-states?lang=en

examines each country's defence and reserve model, followed by a comparative analysis highlighting key similarities and differences.

Finland

Mobilisation and Force Structure

Finland's reserve model is one of the most comprehensive in Europe, built on a **long-standing tradition of peacetime conscription,** which Finland has maintained while many other European states suspended it.[142] Based on its history and geographical location, sharing more than 1,300 km long land border with Russia, Finnish society has **developed a strong sense of collective responsibility for national defence**.[143] This commitment is enshrined in the Finnish Constitution, which states that "Every Finnish citizen is obligated to participate in or assist in national defence".[144] All male citizens aged 18 to 60 are obliged to take part in Finland's military defence, while women aged 18 to 29 may apply on a voluntary basis if medically fit.[145] To fulfil this service obligation, individuals may complete armed or unarmed military service, or non-military (civil) service.[146]

Each year, approximately 18,000 Finns enter conscription in two cycles of around 9,000 individuals. Public support for the system remains strong: according to the Finnish Defence Forces (FDF), 75% of Finns support the current model, reflecting the belief that national defence is "everybody's business" and a core component of Finnish identity and society. The Finnish reserve currently includes around **900,000 citizens**,[147] with a **mobilisation strength of approximately 233,000 personnel**, including **23,850 active-duty troops**.[148]

Training and Reserve System

Military service in Finland lasts 165, 255, or 347 days depending on the type of service and the skills required.[149] Training follows a phased model consisting of basic training, branch-specific training, special training for wartime roles, and finally a unit phase focused on forming operational wartime units. The FDF offers over 500 different tasks to conscripts,

142 https://www.euronews.com/my-europe/2025/10/07/finland-adopts-an-all-society-model-to-build-national-defence
143 https://carnegieendowment.org/research/2024/07/europes-conscription-challenge-lessons-from-nordic-and-baltic-states?lang=en
144 https://www.constituteproject.org/constitution/Finland_2011#s455
145 https://puolustusvoimat.fi/en/finnish-conscription-system
146 ibid
147 https://puolustusvoimat.fi/en/web/intti/about-to-enter-into-the-military-
148 https://intti.fi/en/in-the-reserve
149 International Institute for Strategic Studies. (2025). The Military Balance 2025. Routledge.

enabling meaningful service tailored to the needs of the FDF, individual abilities, aptitude assessments, and personal preferences.[150]

After completing military service, conscripts enter the reserve, where they remain until age 50; officers and non-commissioned officers remain until age 60. The Finnish government has recently considered raising the age limit for army reservists to 65, which would add approximately 125,000 reservists and raise wartime strength above one million by 2031.[151]

In addition to compulsory military service, reservists undergo compulsory refresher training to maintain readiness, lasting between 80–200 days depending on rank. Around 18,000 reservists participate in refresher training each year.[152] If necessary, the President may order reservists to attend refresher training with less than three months' notice, enabling rapid increases in readiness during emerging security situations.[153]

Incentives and Recruitment Initiatives

Finland's system offers broad service options and tailored placement, which enhances motivation and service satisfaction. The FDF's ability to match individual skills, preferences, and service needs helps sustain participation and supports a positive service experience. Women may also apply for voluntary military service, expanding the recruitment pool. Reservists attending refresher training receive a reservist salary, meals, accommodation, travel reimbursement, health services, and a tax-free daily allowance, with higher compensation for officers and NCOs. Additionally, the **National Defence Training Association** (NDTA) offers every year approximately 2,000 additional courses for reservists and civilians, helping to ensure continued readiness, expand skills and strengthen societal resilience and will to defend the country.[154]

Challenges and Outlook

Maintaining a large, well-trained reserve requires substantial resources and continuous improvements to achieve reliable readiness in the face of security developments. To this end, the FDF has recently modernised training through the Training 2020 programme, streamlining mass training while maintaining quality. Moreover, Finland benefits from **exceptionally strong societal support for national defence**, which reinforces cohesion and ensures the continued viability of its reserve-centric model.[155]

150 https://puolustusvoimat.fi/en/finnish-conscription-system
151 ibid
152 https://www.reuters.com/world/europe/finland-plans-raise-reservists-age-limit-add-125000-troops-wartime-army-2025-05-14/
153 International Institute for Strategic Studies. (2025). The Military Balance 2025. Routledge.
154 https://puolustusvoimat.fi/en/web/intti/refresher-training-exercises
155 https://puolustusvoimat.fi/en/web/intti/about-to-enter-into-the-military-

Poland

Mobilisation and Force Structure

Poland suspended compulsory military service in 2010, though it was not abolished, leaving the legal framework intact.[156] In response to regional security developments and the direct threat posed by Russia, Poland has **significantly increased its defence spending** and **accelerated the modernisation of the Armed Forces**, focusing toward deterrence and territorial protection. Military service in Poland is defined by the Homeland Defence Act, which was adopted at the beginning of 2022 to strengthen the Polish Army.[157] Active service encompasses professional military service, basic military service, territorial military service, and service in the event of mobilisation or war. Reserve service is divided into two components: the active reserve, consisting of individuals who have completed military training and formally declared readiness to return to service, and the passive reserve, which includes all others who may be mobilised if necessary.[158]

The Polish Armed Forces currently number around **164,100 active personnel**.[159] However, within the next decade, the Ministry of Defence aims to reach the **300,000 target by 2035**,[160] comprising **250,000 professional soldiers** and **50,000 members of the Territorial Defence Forces** (TDF), a volunteer formation created in 2017 to enhance local defence and civil resilience.[161] Recent reforms have also strengthened digital defences by the establishment of the Cyberspace Defence Forces in 2022, and the reactivation of divisions like the 1st Legions Infantry Division and 8th Home Army Infantry Division.[162]

Training and Reserve System

In 2022, the Homeland Defence Act introduced a new form of military service: the **voluntary basic military service scheme**,[163] allowing citizens aged 18–55 to undergo 28 days of basic training, followed by up to 11 months of specialist training, with the potential to continue serving in operational units.[164] In November 2025, Poland launched the **"wGotowości"** programme: a nationwide, voluntary defence training initiative designed to enhance both civilian and military preparedness by providing courses on basic security, survival training, first aid, and cybersecurity.[165] According to the Defence Ministry, "wGotowości" forms part of a broader plan to train around 400,000 people in 2026 and is described as **"the largest training programme in Polish history"**.[166] This initiative builds on earlier programmes such as **"Trenuj z wojskiem"** (Train with the Army), a series of one-day courses held on military bases across the country focusing on basic training in shooting, tactics, first aid, and survival, and **"Wakacje z wojskiem"** (Holidays with the Army), targeting students and graduates with similar opportunities.[167] Collectively, these initiatives aim to create a population that is resilient, trained, and capable of supporting mobilisation in crisis scenarios.

Incentives and Recruitment Initiatives

The Homeland Defence Act (2022) also introduced an incentive system to attract more personnel into the military, including salary increases, bonuses for combat units and border service, and seniority-based benefits. The Act established the **Central Military Recruitment Centre** to streamline recruitment nationwide and promote voluntary service among young people. Education has been integrated into the recruitment pipeline as well: since September 2024, nearly 30,000 students have joined military training units or uniformed classes, while several thousand cadets have entered military academies. These measures aim to create a long-term, structured pathway linking schools, voluntary trainees, and reservists.[168]

Challenges and Outlook

Despite rapid modernisation and record defence spending, Poland continues to face a **manpower gap**. Recruitment numbers dropped from 16,000 new soldiers in 2023 to 10,000 by mid-2024, highlighting the challenge of sustaining the human dimension of defence even as equipment acquisition accelerates.[169] In addition, the most recent plans to create the largest army by expanding it to 300,000 soldiers, including reservists, are seen as unrealistic due to **retention challenges** and **departures of experienced soldiers** from the military.[170]

Compared to Finland's universal conscription and Lithuania's hybrid approach, Poland **lacks the societal belief in collective defence** that underpins readiness elsewhere, and public opinions on military service and universal conscription vary among genders and age.[171] Some argue, that introducing conscription without public support could be counterproductive and

156 https://tvpworld.com/89055616/would-poles-support-mandatory-military-service-amid-russian-threat
157 https://defence24.com/read-more-analysis/universal-service-building-reserves-to-defend-poland
158 https://www.gov.pl/web/primeminister/more-troops-and-more-money-for-defence--the-council-of-ministers-ad-opted-a-draft-homeland-defence-act
159 https://tvpworld.com/89864273/poland-expects-up-to-13500-more-people-to-enlist-in-2026
160 International Institute for Strategic Studies. (2025). The Military Balance 2025. Routledge.
161 https://tvpworld.com/89864273/poland-expects-up-to-13500-more-people-to-enlist-in-2026
162 https://www.gov.pl/web/obrona-narodowa/zwiekszenie-liczebnosci-wojska-polskiego-
163 https://www.gov.pl/web/obrona-narodowa/wojsko-polskie--nowe-jednostki-wieksza-liczebnosc
164 https://www.gov.pl/web/obrona-narodowa/zwiekszenie-liczebnosci-wojska-polskiego-
165 https://tvpworld.com/87513533/analysis-poland-is-rearming-faster-than-it-can-find-soldiers
166 https://www.gov.pl/web/obrona-narodowa/wgotowosci---program-powszechnych-szkolen-obronnych
167 https://www.reuters.com/business/aerospace-defense/poland-launches-new-military-training-programme-aims-train-400000-2026-2025-11-06/
168 https://www.tvpworld.com/87513533/analysis-poland-is-rearming-faster-than-it-can-find-soldiers
169 https://www.gov.pl/web/obrona-narodowa/wojsko-polskie--nowe-jednostki-wieksza-liczebnosc
170 https://www.tvpworld.com/87513533/analysis-poland-is-rearming-faster-than-it-can-find-soldiers
171 https://carnegieendowment.org/research/2024/07/europes-conscription-challenge-lessons-from-nordic-and-baltic-states?lang=en

undermine efforts at shoring up national defence and supporting Ukraine.[172]

Lithuania

Mobilisation and Force Structure

Lithuania **reinstated compulsory conscription in spring 2015** in response to worsening regional security conditions, particularly the first Russian invasion of Ukraine and illegal annexation of Crimea.[173] The move aimed to strengthen the Lithuanian Armed Forces (LAF) and bolster its reserve capabilities. Conscription procedures follow the Law on Military Conscription, with citizens aged 18–23 (or 23–26 for higher-education deferments) selected via a **randomised system** for nine-month service.[174] Each year, up to 4,000 conscripts are enlisted, while male and female citizens aged 18–38 may also volunteer for the same service, a route chosen by the majority of candidates, according to the LAF.[175]

At the end of 2021, Lithuania adopted a new National Security Strategy, and most recently, the LAF has been modernised under the 2024 Defence System Development Programme with the aim of forming a divisional structure from existing regular and reserve brigades. Lithuania fields approximately **16,100 active personnel** and **12,950 reservists**, including **5,850 in the National Defence Volunteer Forces** (NDVF). The country also **hosts NATO's forward presence**: a multinational battlegroup operates in the country, and Germany is deploying a brigade that is expected to reach full operational capability by 2027.[176]

Training and Reserve System

After completing nine months of service, conscripts are transferred to the reserve of the LAF.[177] The active reserve comprises individuals under the age of 60 who have received basic military training, and their skills are renewed through refresher training lasting 20 to 60 days over a ten-year period.[178]

The NDVF forms a crucial component of Lithuania's territorial defence and involves being prepared to join the national defence forces in case of need, as well as 20 to 50 days per year of serving, mostly on weekends. NDVF accepts as volunteer soldiers ordinary Lithuanian citizens aged between 18 and 60 years, who will then sign a maximum of four-year contract on volunteer military service, with the possibility of extension. After reaching the highest level of military readiness, volunteers may advance to professional service or participate in international missions.[179]

In addition, Lithuania offers a **Junior Officer Command Training** track and the **General Jonas Žemaitis Military Academy** for students and graduates, preparing officers via higher education and field exercises. Civil-military integration is further supported by non-military resilience training through the Ministry of Defence's Mobilisation and Civil Resistance Department, which offers courses on civil resistance, hybrid-threat awareness and unarmed resilience techniques.[180]

Incentives and Recruitment Initiatives

Lithuania has introduced several measures to make military service more attractive, including salary increases, bonuses for demanding tasks and field exercises, and improved compensations and social guarantees.[181]

Challenges and Outlook

In recent years, there has been a **significant increase in interest among young Lithuanians** in national defence. In the first half of 2025, applications for voluntary initial military service rose by 50% compared to previous years. The General Jonas Žemaitis Military Academy admitted its largest cohort in ten years, signalling growing interest in national defence. Notably, over 60% of new professional soldiers in recent years have come from the conscript pathway, underscoring its importance in the recruitment pipeline.[182]

Lithuania's key challenge is **sustaining reserve depth while supporting ambitious modernisation,** including formation of a division-level structure. Nonetheless, reforms to compensation, career progression and social support indicate strong political commitment to personnel retention and ensuring a motivated, capable force.

172 https://tvpworld.com/89818086/poll-most-poles-oppose-compulsory-military-service
173 ttps://carnegieendowment.org/research/2024/07/europes-conscription-challenge-lessons-from-nordic-and-baltic-states?lang=en
174 https://www.karys.lt/en/military-service/conscript-service/conscripts/400
175 ttps://www.karys.lt/en/communicate/f.a.q/397
176 https://kariuomene.lt/en/who-we-are/military-service/23649
177 International Institute for Strategic Studies. (2025). The Military Balance 2025. Routledge.
178 https://www.kariuomene.lt/en/who-we-are/military-service/23649
179 https://www.karys.lt/en/military-service/conscript-service/active-reserve/403
180 https://kam.lt/dideja-karo-tarnybos-patrauklumas/
181 https://kam.lt/visuomenes-pasirengimas-visuotinei-gynybai/
182 https://kam.lt/dideja-karo-tarnybos-patrauklumas/

Summary and Comparative Analysis

Finland, Poland, and Lithuania each represent distinct approaches to national defence and reserve management, shaped by historical experience, geography, and societal attitudes toward service. Despite these differences, all three share common objectives: **maintaining a trained reserve, ensuring rapid mobilisation capability, and fostering public support for defence efforts**.

Finland's model is built on **universal conscription**, with all male citizens aged 18 to 60 having the constitutional obligation to participate or assist in national defence, while women aged 18–29 may volunteer. This framework is underpinned by **long-standing tradition** and **strong societal support**, with 75% of Finns endorsing conscription, reflecting a widely held belief that national defence is "everybody's business." The Finnish Defence Forces maintain a large reserve of roughly 900,000 citizens, maintained by compulsory refresher trainings and supported by additional voluntary courses. The system combines highly-structured system, flexibility for conscripts and reservists, shared mentality about collective defence and incentives to sustain motivation and readiness.

Poland, by contrast, relies primarily on **voluntary preparedness**. Although compulsory service was suspended in 2010, the legal framework remains in place. Defence policy emphasizes territorial defence and NATO commitments, with **active efforts to expand personnel** through various voluntary programmes and incentives. Most recent initiatives include the voluntary basic military service scheme and nationwide programmes like "wGotowości," which aim to build civic resilience, enhance civilian-military preparedness, and develop a trained pool of potential reservists. Incentives, structured recruitment pipelines, and integration with education seek to mitigate manpower challenges, although Poland continues to face **retention gaps** and **fluctuating public support for conscription**.

Lithuania represents a **hybrid approach**, combining **mandatory conscription with strong voluntary pathways**. Conscription was reintroduced in 2015, with randomised selection process of young men, while other men and women may also volunteer. The National Defence Volunteer Forces and other institutional trainings provide additional avenues for building reserve and professional capacity. Lithuania has seen **growing public engagement** and **rising voluntary participation among young**, reflecting societal support for national defence. Challenges remain in **sustaining reserve depth**, but reforms in compensation, career progression, and social support indicate a committed approach to personnel retention.

Comparing these models highlights key differences in approaches, including legal frameworks, societal integration and recruitment strategies. Finland's universal conscription model relies heavily on tradition and societal cohesion to maintain a large, high-readiness reserve. Poland's voluntary system focuses on incentives, education, and large-scale training programmes to compensate for declining numbers in military recruitment. Lithuania balances mandatory service with voluntary options, allowing flexibility while gradually increasing manpower and retaining motivated personnel. Despite differing mechanisms, all three countries emphasize the importance of ready reserves, structured training, and incentives to sustain national defence in a challenging European security environment. Overall, the case studies illustrate that while military strategies may vary, resilience depends not only on equipment and budgets but on **integrating society into defence efforts** and **sustaining human capital**.

Finally, given the urgency of the current security environment in Europe and beyond, Finland, Poland, and Lithuania are not the only European countries reassessing their defence readiness and manpower models. This is a path that other countries may also need to pursue or are already in the process of doing so. For example, Belgium, the Netherlands, Germany and France have also introduced voluntary military service schemes similar to Poland's approach, while Latvia has adopted a system comparable to Lithuania's, reintroducing compulsory service based on a randomised selection model.[183] Further, Slovakia has also recently joined other countries in their efforts to strengthen national defence capacity by introducing a new voluntary reserve system "Národné obranné sily" (National Defence Forces) (see Fact Box – Slovakia).

Although making defence-related decisions is important in the current security environment, they are often politically sensitive and controversial in the public sphere. When introducing new forms of reserve forces or expanding existing ones, policymakers must recognise that **public acceptance is critical** to their success. Effective implementation of new defence policies therefore requires **clear and transparent communication** that **reflects the evolving security environment**, **raises awareness of external threats**, and **actively builds public support for defence-related measures**. In summary, **gradual and consistent public preparation for the possibility of high-intensity conflict**, particularly in relation to Russia, should form a central element of political communication and defence planning.

183 https://kam.lt/dideja-karo-tarnybos-patrauklumas/

Slovakia

Fact box

Slovakia has recently launched a new voluntary military initiative **"Národné obranné sily"** (National defence forces), as a part of a new legislation that passed in summer 2025. The programme is designed to replace the existing active reserve system and strengthen national defence through **broader citizen participation.** Its aim is to prepare the citizens to respond to crisis situations, provide professional training, and equip participants with skills applicable in both civilian and military contexts, while at the same time offering attractive benefits to encourage participation. The programme allows citizens aged 18–55, and up to 65 in exceptional cases, to join different reserve components on a voluntary basis. The programme involves three types of reserves: 1. operational reserves, intended for individuals with prior military experience who will perform tasks of the Armed Forces and contribute to crisis response; 2. emergency reserves, focused on crisis management support and national defence tasks; and 3. military reserves, which offer a one-time 14-day training for citizens with no prior military experience. The Ministry of Defence reported **3,000 interested citizens within the first ten days** after the programme was launched, and a significant interest altogether, with **total applications reaching approximately 8,700.** According to the report from the end of 2025, around 4,000 participants had completed training, indicating **strong public interest** and **high levels of societal engagement** with the new defence initiative. The Minister of Defence also stated that the programme will continue in 2026, with significantly increased capacities to accommodate all interested parties.

184 https://www.youtube.com/watch?v=y8mSSE3EJiA
185 https://www.mosr.sk/56755-sk/ministerstvo-obrany-sr-predstavilo-projekt-narodne-obranne-sily/
186 https://www.mosr.sk/56822-sk/odstartoval-pilotny-vycvik-do-narodnych-obrannych-sil-za-desat-dni-eviduju-3-tisic-zaujemcov/

Comparative Table

National Defence and Reserve Systems in Finland, Poland, and Lithuania

Category	Finland	Poland	Lithuania
Population	5,626,414	38,746,310	2,628,186
Active Personnel	23,850	164,100	16,100
Reserve Forces	900,000 total; 285,000 mobilizable	37,500	12,950
Type of Reserve System	**Mandatory universal conscription** (never suspended)	**Voluntary service** (introduced in 2022)	**Hybrid: Mandatory conscription** (reintroduced in 2015) + **Voluntary service**
	Men mandatory, women voluntary		Men selected via a randomised system, other men and women voluntary
Annual Intake Trends	Stable	Decreasing	Increasing

Data sources: International Institute for Strategic Studies. (2025). The Military Balance 2025. Routledge.

National Defence and Reserve Systems of Countries of Eastern Flank

LEGEND

- No military service in place
- Compulsory universal conscription
- Hybrid: Mandatory conscription based on randomized selection + Voluntary military service
- Voluntary military service

Lessons learned from Ukraine: An Industry perspective

By **Federica Mangiameli**

Thematic deep dives

Introduction

Why Ukraine Matters for the European Defence Industry? The war in Ukraine has rapidly transformed the European security architecture exposing vulnerabilities, accelerating military demand, and creating a real-time lab for industrial and technological advancement. For the first time in decades, war is not a reality far away from the European capitals, but it is a tragic and tangible reality. All theoretical conversations about capabilities and strategies are confronted with the reality on the Ukrainian battlefield, a reality that has showed what modern high-intensity war demands in terms of production, innovation, and institutional flexibility.

In this perspective, Ukraine's defence industry has become a case study on how necessity fuels innovation. Kyiv has built a technology advanced ecosystem that is reshaping modern warfare. The use of emerging technologies to adapt to the needs of the battlefield in real time has revolutionised traditional defence doctrines and achieved a new level of efficiency and readiness. A new model driven largely by private-sector actors, commercial technologies, and agile innovation cycles, contrasts sharply with the traditional European procurement model that often relies on slow bureaucratic processes, legacy platforms, and large monopolistic contractors. As Europe moves to strengthen its strategic autonomy and readiness, the lessons from Ukraine offer a blueprint: for scalable capabilities, resilient supply chains, fast innovation, and industrial diversification beyond traditional systems.

This analysis aims to examine the Ukrainian experience to draw lessons for European defence industries focusing on the evolving requirements for **capabilities, industrial readiness, and innovation**.

1. The future of modern warfare

1.1 The impact of drones and autonomous systems

Since the full-scale invasion in 2022, Ukraine's military response has heavily relied on unmanned aerial vehicles (UAVs), particularly small, commercially derived "first person view" (FPV) drones, as well as larger strike drones and long-range UAVs. This shift has redefined modern warfare: air power is no longer limited to states with large, expensive platforms, and this is why many argues how drones have "democratised" access to precision strike and reconnaissance.[187]

Since drone hardware components such as batteries, lightweight airframes, small computers are widely available in global commercial markets, and software can be rapidly developed and updated, these systems have proved highly adaptable, inexpensive, and effective. As a result, by 2024, Ukraine had developed a domestic drone industry involving more than 500 manufacturers and supplying almost all its UAV needs domestically.[188] This scale has enabled Kyiv to saturate the battlefield with cheap, attritable systems that can be replaced and upgraded rapidly.

Many Ukrainian drones cost between $300 and $1,000, significantly less than traditional guided munitions, yet they can disable armoured vehicles, disrupt logistics, or provide precise battlefield intelligence. Their core components, including batteries, airframes, circuitry, and lightweight processors, are widely available through commercial supply chains,[189] This accessibility, combined with rapid iteration cycles, has democratised air power: instead of relying on a limited number of expensive platforms, both state and non-state actors can now deploy swarms of low-cost systems capable of strategic impact.

1.2 Rapid integration of AI and innovation

Ukraine's defence tech sector has embraced AI-enabled autonomy. UAVs and other unmanned platforms now increasingly integrate automatic target recognition (ATR), autonomous navigation, adaptive software updates, educing human burden and improving speed and precision on the battlefield.[190]

Some Ukrainian drones now operate without GPS, relying instead on computer-vision models designed to withstand Russian electronic warfare. Others integrate autonomous terminal guidance, reducing reliance on operator input and allowing long-range strikes exceeding 1,000 kilometres. This software-driven flexibility has accelerated Ukraine's innovation cycle, enabling dozens or even hundreds of updates per year, a pace far beyond traditional defence

187 Lessons from the Ukraine Conflict: Modern Warfare in the Age of Autonomy, Information, and Resilience
188 While US support weakens, Ukraine's homegrown defence tech is going from strength to strength | Euronews
189 Ukraine's Defence Tech Sector Transforms, Bypasses Traditional Procurement - Defence Innovation Review
190 Ukraine's Future Vision and Current Capabilities for Waging AI-Enabled Autonomous Warfare

procurement norms.[191]

1.3 Mass production and attritable assets

The war has reaffirmed that high-intensity conflicts require not just cutting-edge technology but also large quantities of ammunition, artillery, air defence, counter-UAS, and general attritable assets. **Performance of expensive, rare systems matters less than the ability to produce and sustain mass use.**

According to several reports, Ukraine faced dramatic increases in artillery and ammunition production between 2023 and 2024, and its industrial base expanded to include hundreds of arms producers, many converted from civilian industry or small-scale manufacturing.[192] This combination of high-tech innovation and industrial-scale production demonstrates that effective defence requires both quality and quantity.

2. Adapting defence production to war pace

2.1 From State-Centred Procurement to Private-Sector Led Innovation

One of the most striking industrial shifts in Ukraine has been the pivot from a state-owned, centrally planned defence industry towards a new business model led by defence companies. As documented by a latest report from the Centre for Strategic & International Studies, many Ukrainian defence-tech firms sell directly to military units, bypassing traditional procurement and enabling much faster delivery cycles. In addition to reduce timelines and bureaucracies, this allows to "base strategic priorities and requirements for military equipment on actual battlefield demands".[193] In addition, the government play a key role in assisting firms during the testing whereas they do not have the capacity. The close collaboration between companies, armed forces and government makes processes more efficient.[194]

As observed, Ukraine's wartime adaptation has been characterised by a significant transformation of its industrial governance model. The country moved from an ecosystem largely dominated by large state-owned enterprises to a more agile and fluid environment where start-ups, SMEs, and private manufacturers lead production and most importantly are able to drive innovation and test it on the ground.[195] Ukraine's model relies on rapid iteration, frontline feedback, and flexible procurement, enabling near-immediate deployment of new systems. Companies reportedly perform frequent revisions of hardware and software, sometimes dozens or hundreds per year, a pace unheard of in traditional defence procurement.[196]

2.2. Scaling production and supply chains resilience

By 2024, Ukraine's defence industry had restored and massively expanded capacity. Around 500 arms producers reportedly employ about 300,000 people, producing a wide range of weaponry such as ammunition, UAVs, ground systems, and more.[197]

This decentralised production base built around small and mid-size enterprises, allows flexibility and resilience even under sudden surges in demand. Switching from peacetime to wartime production pace appears easier in these conditions, a lesson of paramount importance for European defence planners. Smaller companies can relocate, pivot production, and substitute components more easily than large, monolithic industrial complexes. This decentralisation enhances both resilience and capacity to meet increasing demands.

3. Innovate and adapt: a new defence ecosystem

3.1 Rapid innovation and technology integration

The transformation of the industrial ecosystem and the rise of SMEs and tech firms have greatly shaped the innovation landscape in Ukraine. In particular, the integration of commercial technology and reliance on off-the-shelf components and open-source software has increased competition and enabled quick adaptation to evolving warfighting requirements.[198]

In addition to this, Ukraine's defence innovation is powered not only by companies but also by small engineering teams and volunteer groups that develop, test, and deploy new systems directly with military units. This whole-of-society innovation model and the collective efforts of Ukrainians at all levels has allowed Kyiv to overwhelm Russia's more hierarchical and bureaucratic industrial system.[199]

3.2 Government as an accelerator, not a bottleneck

Finally, a crucial enabler of Ukraine's innovation ecosystem to be mentioned has been its government's deregulatory approach and flexibilisation of the bureaucratic machine. One of the most illustrious examples, the BRAVE1 defence-tech cluster, launched in 2023, it coordinates military feedback, private-sector developers, and research institutions to accelerate testing and deployment. The government also introduced tax incentives, deregulated procurement for unmanned systems, and established a dedicated drone command branch to institutionalise UAV warfare.

191 Ukraine's Defence Tech Sector Transforms, Bypasses Traditional Procurement - Defence Innovation Review
192 The transformation of Ukraine's arms industry amid war with Russia | SIPRI
193 How Ukraine Rebuilt Its Military Acquisition System Around Commercial Technology
194 ibid
195 Ukraine's Defence Tech Sector Transforms, Bypasses Traditional Procurement - Defence Innovation Review
196 ibid
197 The transformation of Ukraine's arms industry amid war with Russia | SIPRI
198 How Ukraine Rebuilt Its Military Acquisition System Around Commercial Technology
199 ibid

4. Lessons learned for the European defence industry

The Ukrainian example offers Europe a real example of 21st-century war: a war of attrition, drone swarms, rapid innovation, and mass production. For European defence industrial strategy, this translates into clear implications:

- Legacy procurement models are insufficient. Long procurement cycles, and slow bureaucracies do not match modern conflict dynamics.
- Industrial resilience requires decentralised, SME-friendly ecosystems. Over-centralised, monopolistic defence industries may struggle to scale or pivot quickly under pressure.
- Innovation must be continuous, flexible, and tech-driven. Relying solely on state-run R&D agencies or traditional primes risks lagging behind rapidly evolving threats and technologies.
- Supply-chain security and self-reliance matter. Dependence on a narrow supplier base or external imports can cripple readiness under crisis.

Dual-use, civil–military integration can boost sustainability. Civilian technologies — drones, robotics, AI, sensors — can be adapted for defence, and vice versa, making the industry more dynamic and future-proof.

For the European Union and NATO, adopting these lessons may require structural changes: new financial mechanisms, regulatory flexibility, integration of SMEs, and defence-industrial policies that incentivise agility and resiliency. What can Europe learn from Ukraine? During the COVID-19 pandemic, Europe has shown that it can mobilise private industry and cut bureaucratic barriers when necessary – but waiting for emergency conditions is no longer viable. Ukraine's experience demonstrates that military readiness is determined by speed, adaptability, and the capacity to develop and integrate innovation continuously.

Policy Recommendations

Ukraine's industrial transformation in defence demonstrates that readiness, innovation, and adaptability matter as much as strategic planning. For Europe, learning from this experience is a necessity if the continent wants to be prepared to counter future threats.

Policy Recommendations continues **on the next page** →

- **Treat support to Ukraine as a two-way strategic relationship.** Cooperation should include joint production, industrial integration, and long-term knowledge transfer rather than a donor–recipient dynamic.
- **Adopt a wartime sense of urgency.** Replace slow, peacetime procurement cycles with rapid, flexible acquisition mechanisms while maintaining accountability and oversight.
- **Create European defence financing tools.** Establish a dedicated European Defence Production Fund or Defence Industry Bank capable of mobilising capital, scaling manufacturing, and supporting SMEs.
- **Support SMEs, start-ups, and decentralised production.** Reduce regulatory barriers, enable faster certification, and create procurement pathways that allow small firms to compete with legacy contractors.
- **Integrate dual-use innovation into defence planning.** Prioritise civilian technologies — drones, AI, robotics, sensors, communications — that can be adapted rapidly to military needs.
- **Design modular, upgradeable, interoperable systems.** New European systems must be built for easy scaling and fast re-engineering, not locked into bespoke, monolithic architectures.
- **Institutionalise continuous innovation cycles.** Embed rapid testing, iteration, and battlefield feedback into procurement processes across NATO and the EU.
- **Strengthen supply-chain resilience.** Diversify suppliers, encourage domestic component production, and reduce dependence on fragile external inputs.
- **Create permanent NATO–EU knowledge-exchange mechanisms.** Share lessons learned from Ukraine across defence ministries, research institutes, and industrial actors.
- **Balance investment between high-end systems and mass-produced attritable assets.** Europe must not abandon heavy platforms, but must complement them with scalable, low-cost systems suited for high-intensity, drone-saturated warfare.

Conclusion

From National Readiness to Collective Deterrence

This report assessed how Eastern Flank nation-states generate, enable, and sustain readiness within NATO's collective defence framework. The central finding is clear: deterrence credibility on the Eastern Flank is produced nationally before it is aggregated collectively.
Across the region, governments have significantly increased defence spending, expanded force structures, modernised equipment, and intensified operational training. Several states have institutionalised rapid decision-making, strengthened host-nation support frameworks, and embedded readiness into long-term strategic planning. In these cases, national systems are increasingly aligned with the speed and scale assumed in NATO's regional defence plans.
Yet readiness remains uneven. Variations in political decision-making timelines, industrial depth, mobility infrastructure, procurement efficiency, and societal resilience create differentiated levels of preparedness. Where national institutions are streamlined and strategically coherent, deterrence is reinforced. Where legal, political, or industrial friction persists, collective planning assumptions face constraints.

The report demonstrates that collective defence is only as credible as the slowest enabling function among participating states. Readiness is not defined by spending levels alone, but by the ability of sovereign systems to decide, mobilise, sustain, and integrate without delay.
For GLOBSEC and the Future Security & Defence Council (FSDC), establishing this assessment on an annual basis reflects a strategic choice. National readiness evolves alongside threat dynamics, industrial capacity, and political cohesion. Measuring this evolution consistently allows progress to be tracked, gaps to be identified early, and implementation to be monitored beyond declaratory commitments.

This report therefore establishes a baseline. The credibility of collective deterrence over the coming years will depend on whether national reforms continue to close gaps in speed, sustainability, and interoperability.

Deterrence on the Eastern Flank does not begin in Brussels. It begins in national capitals - and its strength will depend on how consistently those capitals translate intent into executable capability.

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