

Overview of NATO Force Mix Analysis

Seeking Balance Between Mass & Technology

A Joint Study by the Atlantic Council & MITRE



Maintaining and reinforcing the line along NATO's Eastern Flank must remain a top priority for NATO and allied nations—supported by increased defense spending, burden transfer, informed decisions, and adaptations made at speed.

As NATO continues to unify its resource planning, enhance investments in common defense, and develop regional defense plans, it must “act fast and smartly.” This requires ongoing assessment of the geopolitical environment—along with data-driven analysis based on mission engineering and warfighting realities—to inform decisions on force mixes, integration, interoperability, and use of current resources while planning for future needs. By adopting this approach, NATO becomes faster and smarter.

To support NATO's goals, the Atlantic Council and MITRE partnered to analyze NATO's force mix options along the Eastern Flank, using mission engineering and advanced modeling and simulation tools. In parallel, Atlantic Council and MITRE held a series of roundtable discussions with stakeholders to gain input on the practical implementation of regional defense plans.

At the 2025 Munich Security Conference, the Atlantic Council and MITRE will hold a final roundtable to glean perspectives from senior political and military leaders prior to finalizing the release of the report in the spring of 2025. Beyond the release of the report, the analytical framework and modeling capabilities developed in this study will be made available to NATO for follow-on work, to include informing future iterations of NATO Defence Planning.

“To prevent war, we need to prepare for it. It is time to shift to a wartime mindset. And this means we need to make our defences even stronger by spending more on defence, and producing more and better defence capabilities.”

MARK RUTTE,
SECRETARY GENERAL OF NATO

The Challenge for NATO Nations

- NATO nations have agreed to invest 2% of GDP on defense, and two thirds of Allies now meet that requirement. With discussion underway on increasing this target, NATO must urgently identify the most effective use of additional spending, informed by data-driven analysis. How and where allied nations spend will be vitally important. New operational concepts are essential, and there must be emphasis placed on coordinated procurement for both cost efficiency and collective alliance effectiveness.
- NATO must transform its operational concepts and adapt capabilities to generate mass, speed, and precision where essential to meet the reconstituted Russian threat. This investment also requires renewed emphasis on technology innovation and adaptation, autonomy, integration, and interoperability supporting multi-domain warfare.

An Approach / Solution: The Atlantic Council & MITRE NATO Force Mix Analysis

The Atlantic Council & MITRE NATO Force Mix Analysis (NFMA) generates force design options for 2025–2030, in the context of geopolitical considerations, and offers recommendations for synchronized investment strategies. This study is being done as an initial proof of concept which can then be applied to broader defense planning requirements. The NFMA focuses on two main areas:

- **Improving Multi-Domain Operations:** Explore solutions to NATO’s multi-domain operations strategy to improve Allied targeting and lethality. The NFMA informs rapid incremental design of a NATO-distributed multi-domain fires capability, enabled by maneuver, intelligence, sustainment, and command and control (C2), and models its use to counter Russian mass and momentum.
- **Hardening the Flank:** Analyze a set of force mix options to improve regional capabilities around the Baltics. The NFMA identifies potential capabilities that could harden smaller member nations and identifies force mix options that provide the greatest deterrence benefit for Eastern Flank countries. The study also integrates Sweden and Finland’s contributions and force model implications.

Key Questions Addressed in the NATO Force Mix Analysis

- How can the Alliance strengthen its posture on the Eastern Flank?
- What force modernization changes and investments should NATO consider making for rapid adaptation in the 2025-2030 timeframe?
- What capabilities demonstrate the greatest operational cost-benefit to strengthen NATO’s Eastern Flank?
- What improvements to NATO targeting can be achieved using a multi-domain integrated fires network?
- How can NATO better integrate current formations with autonomous systems to increase battlespace awareness, C2, and lethality through hybrid solutions?

For more information contact:

Lisa Bembenick, bembenick@mitre.org, 703-677-2993

Scott Lee, rslee@mitre.org, 703-336-2736

Matt McKaig, mlmckaig@mitre.org, 813-476-4877

Andrew Michta, AMichta@atlanticcouncil.org, 202-696-8765

“The alliance, as well as all the member nations of the alliance, are very, very focused on how to improve our defense industrial production and how to modernize our force structure at the same time. This has been a massive shift in the way NATO operates.”

GENERAL CHRISTOPHER CAVOLI,
SUPREME ALLIED COMMANDER EUROPE
AND COMMANDER, UNITED STATES
EUROPEAN COMMAND

“... We have launched a race, we are in a race, we are in a warfighting race. That means we are racing to adapt, to transform, to invent in order to outpace the enemy, to be quicker than him.”

ADMIRAL PIERRE VANDIER,
SUPREME ALLIED COMMANDER
TRANSFORMATION