Security of Supply from a NATO perspective

Definition and NATO Frameworks

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Resumé

Artikeln belyser begreppet *Security of Supply* (försörjningstrygghet) ur ett Nato-perspektiv och framhåller vikten av att allierade länder gemensamt säkerställer tillgången till kritiska resurser, inklusive militär materiel, energi, logistik och industriell kapacitet, i samtliga beredskapsnivåer. Till skillnad från rent nationella eller EU-baserade angreppssätt betonar Nato en kollektiv transatlantisk strategi, där alla medlemsstaters försörjningskedjor betraktas som ömsesidigt tillgängliga. Detta bygger på principerna i artikel 3 och 5 i det nordatlantiska fördraget. Artikeln understryker att militära logistiksystem, gemensam standardisering (t ex av bränslen och ammunition), och mekanismer för delat ansvar, såsom ”Logistic Role Specialist Nations”, är centrala för alliansens operativa uthållighet. Vidare beskrivs hur Nato genom initiativ som den gemensamma upphandlingen av precisionsvapen och den nyligen antagna Defence Production Action Plan (2023) stärker industrins kapacitet och minskar beroendet av enskilda leverantörer. Energisäkerhet lyfts som ett särskilt fokusområde, där Nato arbetar med att skydda energiinfrastruktur, diversifiera tillförselvägar och minska sårbarheten för externa påtryckningar, särskilt från Ryssland. Samverkan med EU, industrin och partnerländer, genom exempelvis säkerhetsarrangemang för försörjning (SOSAs) och det årliga NATO Industry Forum, förstärker alliansens resiliens och krisberedskap. Avslutningsvis presenteras ett analytiskt ramverk med fyra pelare – styrning, information, tillgång och distribution som speglar Natos integrerade syn på försörjningstrygghet i både civila och militära domäner, i linje med organisationens övergripande resiliensagenda.

SECURITY OF SUPPLY in NATO parlance refers to the assured availability of critical resources, be it military equipment, ammunition, fuel, or other essential goods and services to meet national and Alliance needs under all circumstances, including crises and conflict.

The goal of security of supply must be to *safeguard the functioning of critical infrastructure, production and services so that they meet the most vital basic needs of the population, economy and national defence.*

Unlike a purely national or Europe-only approach, NATO's concept is inherently collective; it encompasses supply sources across all member states, leveraging the Alliance's transatlantic nature. In fact, NATO's definition explicitly includes suppliers in all Allied countries (for example, North American as well as European), reflecting that Allies should be willing to rely on each other for critical materiel under any conditions. This Alliance-wide view is grounded in NATO's founding principles of mutual support

(Article 3 of the North Atlantic Treaty) and collective defense (Article 5), implying that no member should be cut off from essential supplies when its security is at stake.

Over the past decade, NATO has elevated security of supply as a strategic concern within its policy framework. Notably, Allied leaders agreed at the 2016 Warsaw Summit to enhance national resilience in seven areas, many of which relate to maintaining supplies of critical resources (energy, food/water, communications, transportation, etc.).

In 2021, NATO adopted a Strengthened Resilience Commitment that explicitly prioritizes securing supply chains, critical infrastructure, and energy networks across the Alliance. This reflects a growing recognition that supply vulnerabilities, whether due to hostile interference, market disruptions, or natural disasters, pose a risk to collective defense. NATO's approach is thus to encourage robust national preparedness while coordinating multinational solutions for supply security.

Cooperation with partner countries also plays a role; for example, Finland (prior to membership) engaged with NATO's Resilience Committee to share best practices on regional security of supply and critical infrastructure protection, reinforcing Alliance-wide frameworks. Overall, NATO's policies embed Security of Supply within the broader resilience and preparedness agenda, ensuring that civilian and military supply needs can be met even under stress.

Security of Supply in Military Logistics

In NATO's strategic thinking, military logistics is a core pillar of security of supply. Effective warfighting depends on reliable supply lines for fuel, ammunition, spare parts, and other materiel. NATO has developed joint logistic structures and agreements to guarantee that Allied forces can be sustained in operations. For instance, when NATO undertakes an expeditionary operation,

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nations contribute troops and their initial supply stocks, but common logistic support is coordinated for the long haul. Allies often share roles to avoid duplication: a nation can become a *Logistic Role Specialist Nation* for a mission, taking charge of a specific supply function for all. An example was France providing bulk fuel support to the entire 40 000-strong NATO Kosovo Force in 2000, ensuring a steady fuel supply for all Allies in the theater. Such arrangements illustrate how NATO leverages collective solutions to enhance security of supply for operations—no single army is solely responsible for its sustainment when operating as part of the Alliance.

Standardization is another way NATO bolsters supply security in logistics. By standardizing fuels, ammunition calibers, and other supply classes among Allies, NATO reduces incompatibilities and simplifies resupply. A case in point is the adoption of a single fuel (the NATO F-34/F-35 jet fuel) for both aircraft and ground vehicles in recent years, which simplifies logistics and ensures security of supply across forces. NATO also manages common infrastructure like the Central Europe Pipeline System (CEPS), a NATO-owned 5 000 km fuel pipeline network that spans multiple countries to supply air bases and army depots.

This multinational pipeline, overseen by NATO's Petroleum Committee, was estab-

lished precisely to guarantee wartime fuel supply in central Europe, an early embodiment of collective security of supply. In addition, NATO's network of agreements (such as STANAGs and bilateral Cross-Servicing Agreements) enables forces to share supplies like fuel, ammunition, and medical support in the field, further knitting together Allied logistics. Through such mechanisms, NATO's logistic strategy ensures that an interruption in one nation's supply can be mitigated by Allied support, keeping the Alliance's military effectiveness robust even in protracted or large-scale operations.

Defense Industry Collaboration and Supply Chains

NATO recognizes that long-term security of supply also hinges on the defense industrial base and armaments cooperation among Allies. Modern military systems are complex and often sourced internationally; no single Ally produces the full spectrum of equipment it uses. NATO's role, while not directly managing defense industries, has been to facilitate collaboration and policy coordination to ensure that Allies can procure and sustain critical defense technologies. For example, NATO's Conference of National Armaments Directors (CNAD) and the NATO Industrial Advisory Group (NIAG) work to harmonize requirements and promote multinational projects, so that Allies can "cooperate more fully in capability development" and reduce dependence on single sources. One practical NATO mechanism is using its procurement agencies (like the NATO Support and Procurement Agency, [NSPA]) to act as a central buyer on behalf of multiple nations.

This was demonstrated when NATO set up a trust fund to collectively purchase precision-guided munitions; the United States agreed to sell smart bombs through NATO to various Allies under one export license, streamlining the process and *avoiding* each Ally having to negotiate separately. This arrangement, the first of its kind, showed how NATO can pursue security of supply objectives by aggregating Allied demand and tapping suppliers in any member nation (including the US) via a common Alliance framework. It highlights NATO's transatlantic approach to supply security, in contrast to more restrictive notions of buying only nationally or only within Europe. Indeed, from NATO's perspective, an ally's defense industry can be considered a trusted extension of one's own supply base, thanks to the Alliance's security guarantees and long-standing armaments cooperation.

Recent geopolitical events have further pushed NATO to strengthen defense-industrial cooperation for supply security. Russia's war on Ukraine exposed shortfalls in NATO countries' stockpiles (e.g. artillery ammunition) and an overreliance on just-in-time production. In response, NATO agreed on a Defence Production Action Plan (DPAP) in 2023 to boost allied industrial capacity and coordinate procurement. This plan seeks to *aggregate Allied demand, expand production capacity, and improve interoperability and interchangeability* of armaments across the Alliance.

Through such initiatives, NATO encourages members to jointly invest in manufacturing key munitions and equipment, thus ensuring that surges in demand (like wartime resupply to Allies or partners) can be met more readily. Additionally, several NATO nations have entered into bilateral Security of Supply Arrangements (SOSAs), often with the United States, to solidify mutual

support in defense trade. These non-binding agreements commit each side to prioritize the other's requests for critical defense goods during emergencies and to facilitate export licenses or industrial production accordingly. For instance, the US has SOSAs with countries like Estonia, Finland, Italy and others, which enable both sides to acquire the industrial resources they need to quickly meet defense requirements and resolve unanticipated disruptions.

While NATO as an organization doesn't sign such agreements itself, it strongly endorses the principle behind them; Allies should guarantee one another a reliable flow of defense materiel in times of need. In sum, NATO's strategic approach to industrial security of supply is to weave a tight network of collaborative projects, common procurement efforts, and reciprocal support arrangements, so that the Alliance's defense supply chain is resilient against both market shocks and adversary pressures.

Energy Security as a Component of Security of Supply

NATO also views energy security as a vital element of security of supply, given modern militaries and societies' heavy dependence on energy. While energy policy is largely a national and EU competency, NATO began addressing energy security after the 2008 Bucharest Summit gave it a mandate to consider the security implications of energy supply. At its core, NATO's interest is to ensure that Allies have stable and diversified access to fuels and power, and that adversaries cannot easily use energy disruptions as a strategic weapon.

NATO Secretary General Anders Fogh Rasmussen underscored this in 2014, stating, "We must make energy diversification a strategic transatlantic priority and reduce Europe's dependency on Russian energy." This frank acknowledgment came as Russia's aggression in Ukraine highlighted Europe's vulnerability due to heavy reliance on a single supplier for natural gas.

Since then, NATO's strategic documents and summits have routinely emphasized the need for resilient energy supplies and infrastructure. Allied leaders have stressed diversifying fuel sources and routes, protecting critical energy infrastructure from attacks, and developing contingency plans for energy disruptions. Moreover, NATO established an Energy Security Centre of Excellence in Lithuania, which helps Allies share best practices on safeguarding energy grids, pipelines, and fuel convoys, and improving energy efficiency in military operations.

In NATO's strategic approach, energy security has multiple facets; one is strategic awareness—NATO regularly consults on global energy trends and potential supply risks (for example, monitoring geopolitical chokepoints, cyber threats to energy networks, or shifts in global oil and gas markets).

Another is protection. NATO supports efforts to protect critical energy infrastructure (like pipelines, power grids, refineries) against sabotage or attacks, which can include coordinating Allied naval patrols to secure sea lanes and chokepoints vital for oil transport. A third aspect is ensuring the operational energy needs of military forces. Energy supply for deployed forces is a logistical lifeline; NATO works on fuel supply chain robustness in missions and also on reducing the demand (through efficiency and new technologies) so that forces are less exposed.

All these efforts contribute to a more secure energy supply posture for the Alliance. NATO's 2021 resilience commitment explic-

itly listed energy networks alongside supply chains as areas to bolster, and the 2022 Strategic Concept reinforced that "secure and resilient energy supplies" are critical to Allies' security and preparedness. While NATO defers to other institutions for civilian energy policy, it acts as a convening and supporting platform to help member states coordinate on energy security measures—whether that's sharing intelligence on potential disruptions or conducting training on protecting energy infrastructure. In essence, NATO treats the reliable supply of energy as both an economic necessity and a security imperative, integral to the Alliance's overall security of supply calculus.

NATO Partnerships and Initiatives Enhancing Security of Supply

To strengthen security of supply, NATO engages in a number of cooperative initiatives and partnerships. Coordination with the European Union is particularly important, since the EU has its own programs for defense supply chain security and energy security that involve many NATO members. NATO and the EU have acknowledged their complementary roles, for example, the EU's Defense Procurement Directive and funding mechanisms address intra-European supply issues, while NATO brings transatlantic linkages and military-specific requirements.

Joint statements by NATO and EU leaders have stressed working together on resilience of critical infrastructure and supply chains, especially after recent crises (the COVID-19 pandemic and the war in Ukraine) revealed gaps in medical supplies, semiconductors, and armaments. NATO also leverages its partnerships with industry through venues like the annual NATO-Industry Forum (NIF), where private sector leaders meet with NATO officials to discuss securing defense supply chains against emerging risks (such as cyber threats or over-reliance on single sources).

This public-private collaboration is seen as key, since much of the critical production and logistics capacity (from ammunition factories to shipping companies) resides in the private sector. As one NATO seminar concluded, "Contractual agreements between the public and private sectors can ensure security of supply during crisis or conflict" and should be coordinated Alliance-wide.

Among Allies, various multilateral projects directly reinforce collective security of supply. One example is the joint ammunition procurement initiative launched through the European Defence Agency (with 25 NATO countries participating) to pool orders for 155mm artillery shells, which both increases supply volume and ensures members are not competing against each other for the same items. While led by the EU, this effort aligns with NATO's DPAP goals and benefits the Alliance by rapidly scaling up stocks of critical munitions.

Another set of initiatives is in the realm of critical raw materials; NATO planners are increasingly concerned about access to rare earth elements and other materials crucial for defense manufacturing, many of which come from outside the Alliance (e.g. China). NATO's agenda now includes dialogues on securing supply lines for these inputs, aligning policies among Allies to avoid strategic dependencies. The Alliance has even begun to address climate change impacts on supply security. For instance, NATO's Climate Change and Security Action Plan shares best practices on enhancing the resilience of transportation networks and energy grids under extreme weather, directly tying into security of supply for deployed forces and populations.

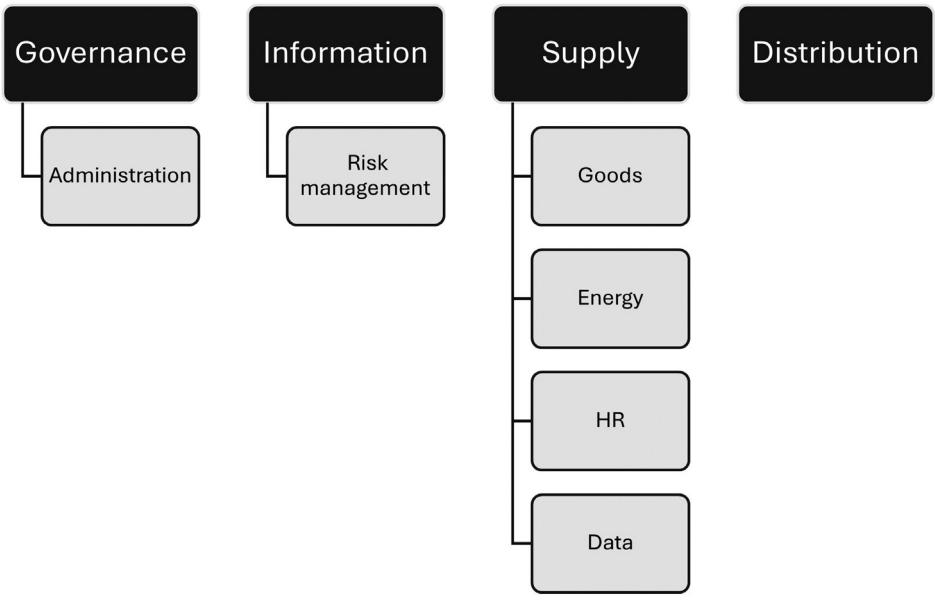

Fig 1. A suggestion for a structured framework for Security of Supply, aligning with NATO's strategic approach to ensure resilience in critical supply chains.

In summary, NATO's strategic approach to Security of Supply is multifaceted and collaborative. It is defined by ensuring that Allied nations collectively have reliable access to the supplies, industrial capacity, and energy they need for their defense and survival. Through military logistics cooperation, defense-industrial coordination, energy security efforts, and partnerships with institutions like the EU and the private sector, NATO seeks to mitigate supply risks before and during crises. This NATO perspective goes beyond narrow self-sufficiency and instead builds a web of mutual support and integrated supply networks across the Alliance. By doing so, NATO helps its members maintain the strategic assurance that essential resources will be there when required – a cornerstone of credible collective defense.

It highlights the interconnected components necessary for a robust supply system, emphasizing Governance, Information, Supply, and Distribution as key pillars.

- Governance serves as the foundation, overseeing administration and risk management, ensuring policies and frameworks are in place to safeguard supply continuity.
- Information is crucial for decision-making and risk mitigation, particularly in military logistics and crisis response.
- Supply is divided into essential categories; goods, energy, human resources (HR), and data. This aligns with NATO's focus on securing critical resources, from military equipment and fuel to workforce and digital infrastructure.

- Distribution ensures that secured supplies reach operational forces or civilian sectors in need, reinforcing NATO's collective defense strategy.

This model reflects NATO's integrated approach to Security of Supply, emphasizing resilience, coordination, and preparedness across military and civilian domains. It aligns with NATO's Baseline Resilience Requirements, which underscore the importance of maintaining supply chain integrity for defense readiness and operational sustainability.

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