

MILITARY MOBILITY IN THE VISION OF NATO AND EUROPEAN UNION

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DOI: 10.55535/RMT.2024.4.44

Military mobility in the Euro-Atlantic context is an essential strategic element for strengthening regional and global security, aiming to facilitate the rapid and efficient transport of forces and equipment between NATO and EU member states. In this regard, recent investments have focused on upgrading infrastructure and simplifying cross-border procedures to enable the effective deployment of forces in emergency situations. The projects initiated and managed by the European Defence Agency or under the PESCO umbrella in recent years, which aim to increase the functionality of military mobility corridors, connecting nations in Europe through logistics hubs, contribute to improving interoperability and rapid reaction in the context of current security challenges. Such a multinational logistics network optimizes the use of existing resources, with a focus on the development of dual-use (civil-military) transport infrastructures, while supporting preparedness for possible operations and increasing responsiveness and sustainability in the face of threats.

Keywords: military mobility; dual-use infrastructures; logistics; NATO; EU;

INTRODUCTION

Military mobility in the Euro-Atlantic space is a central pillar for ensuring collective security and defence in the face of global threats. The need for significant investments and the implementation of strategic projects has become more evident in the context of rising geopolitical tensions, especially after Russia's invasion of Ukraine. The effective mobility of troops and military equipment ensures a rapid response in the event of a crisis, allowing the deployment of resources in strategic areas, thus strengthening the deterrence capacity of NATO and the EU (Usewicz et. al, 2022, p. 15).

In this context, investments in transport infrastructure, such as the modernization of road, rail and air networks, are essential to reduce reaction time and optimize cross-border mobility. Such initiatives bring major benefits, including increased responsiveness, reduced bureaucracy and strengthened supply chains. However, challenges remain, including legislative barriers and inadequate infrastructure in certain regions.

Recent conflicts, in particular the one between Russia and Ukraine, underline the need for flexible and efficient logistical capabilities. In this context, opportunities to strengthen military mobility are expanding, through greater coordination between member states and through the integration of new technologies. These efforts will not only strengthen collective defence but will also improve the ability to react to new security challenges. The concept of *collective defence* is not a new idea, being a response to the growing threats and vulnerabilities of states. Article IV of the Treaty of Brussels (1948) and Article 5 of the Treaty of Washington (1949) explicitly provide for the obligation of signatory states to provide mutual assistance in the event of aggression, aiming to restore security. The implementation of this mutual support involves the mobilization of the military structures of the partner countries, generating multiple legislative and procedural implications. A detailed analysis of transit zones and the efficient use of transport infrastructure is needed, having a direct and significant impact on military mobility. These issues are priorities on the European agenda, and the ultimate objective of these efforts is to ensure security in the European space (Gheondea et. al, 2022, p. 45).

The paper therefore aims to highlight the main measures that NATO and European Union member states are considering to streamline military mobility in the Euro-Atlantic space. Moreover, the main projects and initiatives meant to contribute to the realization of this goal are presented, emphasizing the opportunity and benefits of investments in the modernization and development of land, sea or air transport infrastructures with dual civil-military use. Romania's position and the measures taken at national and international level in the context of streamlining military mobility are also presented in this paper.

MILITARY MOBILITY IN NATO'S VISION

Military mobility is seen by NATO as a key factor for rapid force projection, collective defence and deterrence of emerging threats and it is necessary to create an integrated and well-regulated framework to ensure effective and coordinated defence against current threats, especially in the context of recent crises and conflicts. Therefore, NATO pays particular attention to improving transport and logistics capabilities, interoperability between allies, and removing administrative and physical barriers.

NATO stresses the need for military forces to be able to move rapidly over long distances, both within Europe's borders and to crisis areas. It is vital to respond to unexpected threats and to support allies within the margins of Article 5 of the Washington Treaty (collective defence). Improving transport infrastructure and adapting it to military requirements are priorities to enable the rapid movement of troops, military equipment and heavy equipment.

NATO also emphasizes interoperability, consisting in the ability of forces from different member states to operate jointly, using compatible procedures, equipment and systems. Close cooperation between NATO and the European Union is essential in this regard, in particular through joint programs, such as the *Military Mobility Initiative*, which aims to simplify and harmonize military transport procedures between NATO and the EU member states.

Another major objective is to remove administrative and logistical barriers that can delay or even prevent the rapid movement of troops and equipment. The aim is therefore to simplify these procedures, by obtaining border crossing permits quickly and reducing waiting times at borders. Work is being done to standardize documentation and harmonize military transport rules between NATO countries to ensure maximum fluidity in the movement and transportation (M&T) sector.

Equally, NATO stresses the need to strengthen critical infrastructure, referring to roads, bridges, ports and rail networks, to withstand the weights and dimensions of military equipment. In addition, the infrastructure must be resilient to cyber or physical attacks, which could disrupt logistics chains. The ability to protect transport routes and quickly restore damaged infrastructure during conflicts is also very important.

MILITARY MOBILITY IN EU'S VISION

Political-socio-economic developments at European level have led the European Commission to accelerate the implementation of integration measures within the European military mobility project. The current geopolitical situation, generated in particular by the Russian Federation's aggression against Ukraine, underlines the need for the EU to take concrete and targeted measures in key areas to achieve its objectives. As a result, the EU has been and is continuously forced to revise its strategic vision on military mobility, which represents an essential topic for the defence and security of the entire European Union and beyond (Bangală, 2023, p. 385).

Figure 1 shows a SWOT analysis (Chihaiia, 2023, p. 5) on military mobility in Europe. This analysis reflects the need to continue and concretize the recent initiatives in the field of military mobility, so that the existing documents and commitments expressed between the various NATO and/or EU member states do not remain at the stage of a general framework but even produce beneficial effects on military transports. A key element in this approach could be investments in the modernization and development of dual-use, civil-military infrastructures, thus generating a streamlining of transport and an optimization of long-term logistics flows, both in peace and in crisis or war situations.

Optimizing supply chains at EU level can also support military mobility by reducing transport times, coordinating resources efficiently and improving logistical capabilities for fast and efficient operations. By integrating national and multinational supply chains, European states can ensure a rapid and continuous flow of equipment, ammunition and supplies, regardless of the location of military units. Better coordination of logistics networks and distribution centres, including using shared logistics hubs, can reduce the time needed for procurement and deployment. In addition, by integrating modern technologies, such as digital supply chain management systems, military transport flows can be optimized,

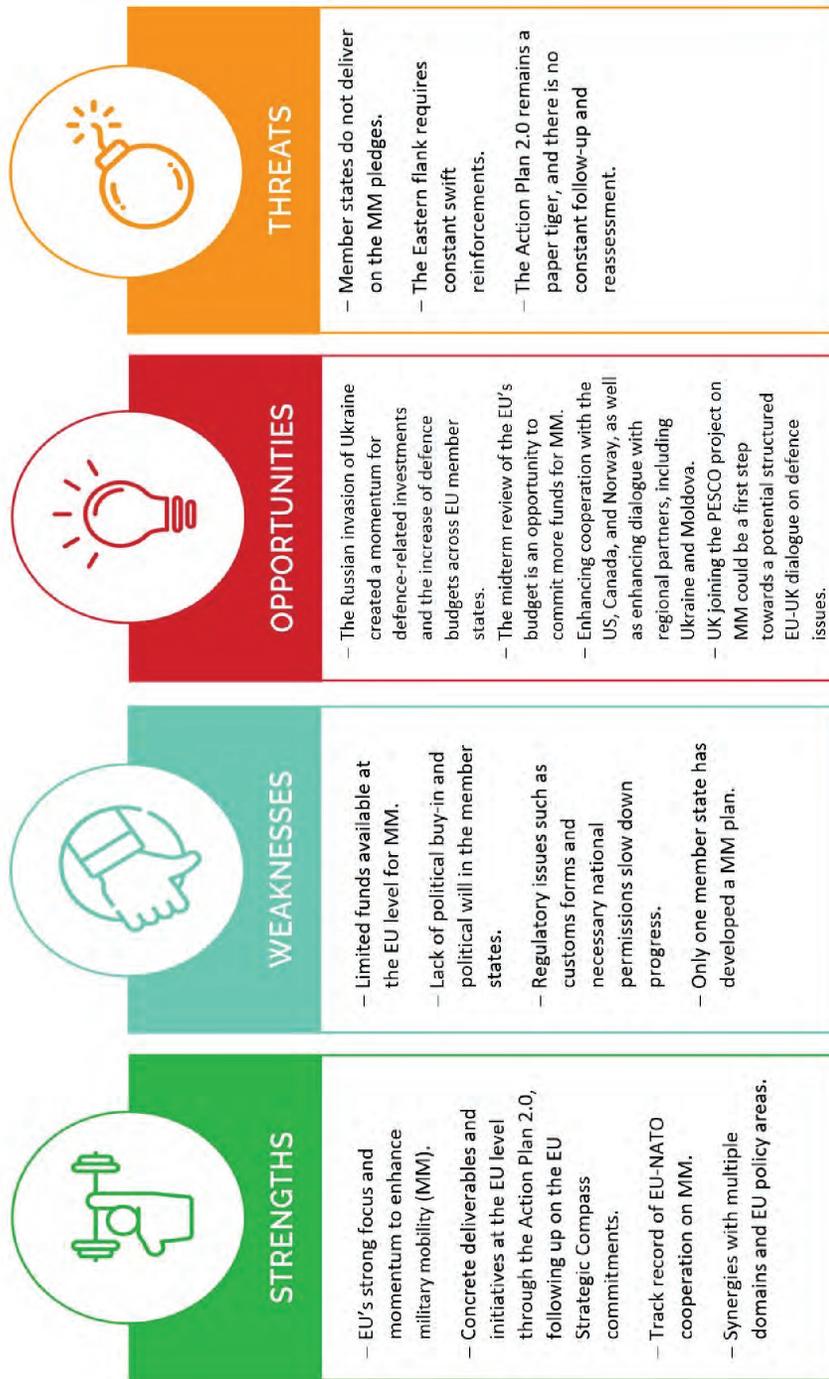


Figure 1: SWOT analysis on military mobility in Europe (adapted after Chihai, ib.)

thus contributing to the efficiency of logistics (Minculete et. al., 2022, p. 6). These technologies allow for more accurate equipment tracking, real-time inventory management, and better coordination between supply points, leading to efficient resource distribution.

Action Plan on Military Mobility 2.0

The EU's *Action Plan on Military Mobility 2.0* (APMM 2.0), launched in November 2022, was developed within the framework of the European Defence Agency (EDA) and represents an initiative aimed at improving the European Union's ability to quickly and efficiently transport military forces and equipment on European territory, both for common defence operations and for international missions (Gheondea, Pleşanu, 2022, p. 47). This document is a continuation and extension of the first military mobility plan launched in 2018.



Figure 2: Main axes of the EU Action Plan on Military Mobility 2.0 (authors' design)

Figure 2 summarizes the five main axes on which the major objectives of APMM 2.0 have been outlined. Specifically, these objectives consist of:

❖ *Improving critical infrastructure*, both by adapting transport infrastructure (roads, railways, ports and airports) to support specific military mobility needs, including strengthening bridges and adapting gauges to support heavy military

vehicles and equipment, and identifying and correcting shortcomings in the trans-European transport network (TEN-T), so that it ensures good civil and military mobility.

❖ *Simplifying border crossing procedures.* It can be achieved by reducing the bureaucratic and legal barriers that hinder the rapid transport of troops and equipment between member states, respectively by creating harmonized procedures for granting transit permits and developing a “*Military Schengen*” for more efficient military mobility.

❖ *Civil-military coordination.* Collaboration between the civilian and military sectors is considered necessary to use the available infrastructure and resources effectively and to meet the needs of both areas. Equally, a potential solution would be to mobilize financial resources from civilian budgets, such as the Connecting Europe Facility (CEF), to support investments in critical infrastructure for military mobility.

❖ *Increased cooperation with NATO and international partners.* The action plan stresses the need to ensure interoperability and coordination between the EU and NATO in the field of military mobility, to avoid duplication of efforts and ensure coherence in strategic planning. At the same time, expanding cooperation and partnerships with third countries, especially those in the Eastern Neighbourhood and the Western Balkans, is an important objective for improving military mobility in Europe.

❖ *Improving resilience and crisis preparedness,* both by increasing the EU’s capacity to respond quickly to crises and security threats, and by ensuring rapid and effective military mobility in the event of emergencies or conflicts. Moreover, it is necessary to integrate military mobility into defence and cybersecurity plans to ensure the security of operations.

The APMM 2.0 therefore aims to transform Europe into a better defence-ready “*strategic area*” and to increase the EU’s ability to react quickly to security threats, both at European and global level. It promotes synergy between civilian and military infrastructure, aims to simplify administrative procedures and intensifies collaboration with NATO and other international organizations.

PESCO Initiatives in the Field of Military Mobility

Between 2021-2022, Norway, Canada, the US and the UK joined a cooperation program called *Military Mobility (MM)*, under the umbrella of the Permanent Structured Cooperation (PESCO). “*The stated aim of the project is to support Member States’ commitment to find ways to simplify and standardize cross-border military transport procedures, aiming to allow the unhindered movement of military personnel and goods within the EU’s borders, by road, sea, rail or air, without lengthy bureaucratic procedures*” (Bangală, p. 387). The project is coordinated by the Netherlands, and among the member states participating in the project are the USA, Canada, Norway, Austria, Belgium, Italy, Spain, Canada, the Netherlands, France, Croatia, Hungary, Slovakia, Slovenia, Poland, Romania, Bulgaria, Portugal, Greece or Cyprus.

Another project carried out via PESCO is the *Network of Logistic Hubs in Europe and support to operations (NetLogHubs)*, which aims to create a multinational network based on existing logistics capacities and infrastructure. The main objective is to use a network of existing logistics facilities for multinational operations, prepare equipment for missions, share storage space for spare parts or ammunition, and harmonize transport and deployment activities. Nations in Europe will provide their own capacities so that more logistics hubs can be used. Connected with the European Multimodal Transport Hub, which provides the lines of communication between multinational hubs, the network will grow to cover the entire continent. As for possible operations, for the pre-movement of materials, warehouses and maintenance facilities of other European countries could be used for each other. The network will reduce reaction time and increase capabilities and sustainability for military operations. The project is coordinated by Germany, and the member states participating in the project include Belgium, Italy, Spain, Canada, the Netherlands, France, Croatia, Hungary, Slovakia, Slovenia, Poland, Bulgaria or Cyprus.

Investments in Euro-Atlantic Dual-use Infrastructure

According to an analysis (Chantraine, 2024, pp. 9-11) presented at the *Dual Use & Military Mobility Seminar* held in Ghent, Belgium, on 23 February 2024, after 3 submission sessions, 95 projects aimed at infrastructure investments initiated by 21 member states were funded. The funded projects aim at the modernization and development of dual-purpose infrastructures and cover all means of transport,

namely by land (road and rail), by air and by water (sea and river). *Figure 3* shows a summary of the investments made by member states in the 3 project submission sessions, by transport category. Analysing the data provided, approximately 50% of the investments are aimed at railway infrastructure, 31% at road infrastructure, the remaining 19% being allocated to infrastructures that support military transport by air and water.

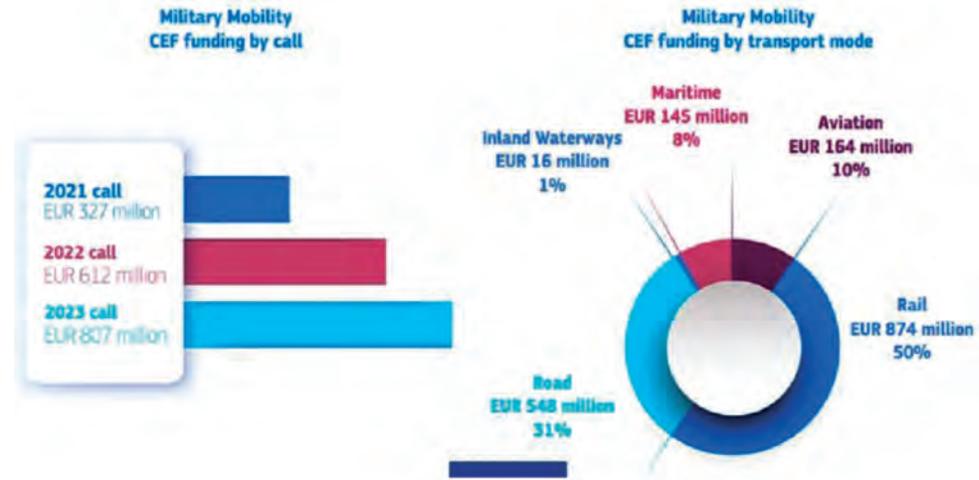


Figure 3. Summary of investments in dual-use infrastructure in Europe between 2021-2023 (Chantraine, 2024)

Figure 4 shows and quantifies how the 21 member states have allocated financial resources to projects aimed at upgrading and developing dual-purpose infrastructures. It can be seen that most states consider the development of railway infrastructure essential, with two thirds of them investing in this sector. Regarding Romania, the investments amount to over 80 million Euros, almost evenly divided between rail and road.

MILITARY MOBILITY IN ROMANIA'S VISION

The Minister of National Defence of Romania signed, on 10 July, during the Washington Summit, the Letter of Intent on the creation of a *Military Mobility Corridor* between Romania, Bulgaria and Greece (RoMoND Press Release no. 152, 2024). This initiative represents an important step in strengthening NATO's defence and deterrence capabilities in the region. At the 2023 NATO Summit in Vilnius, the need to strengthen the deterrence and defence posture through new defence plans

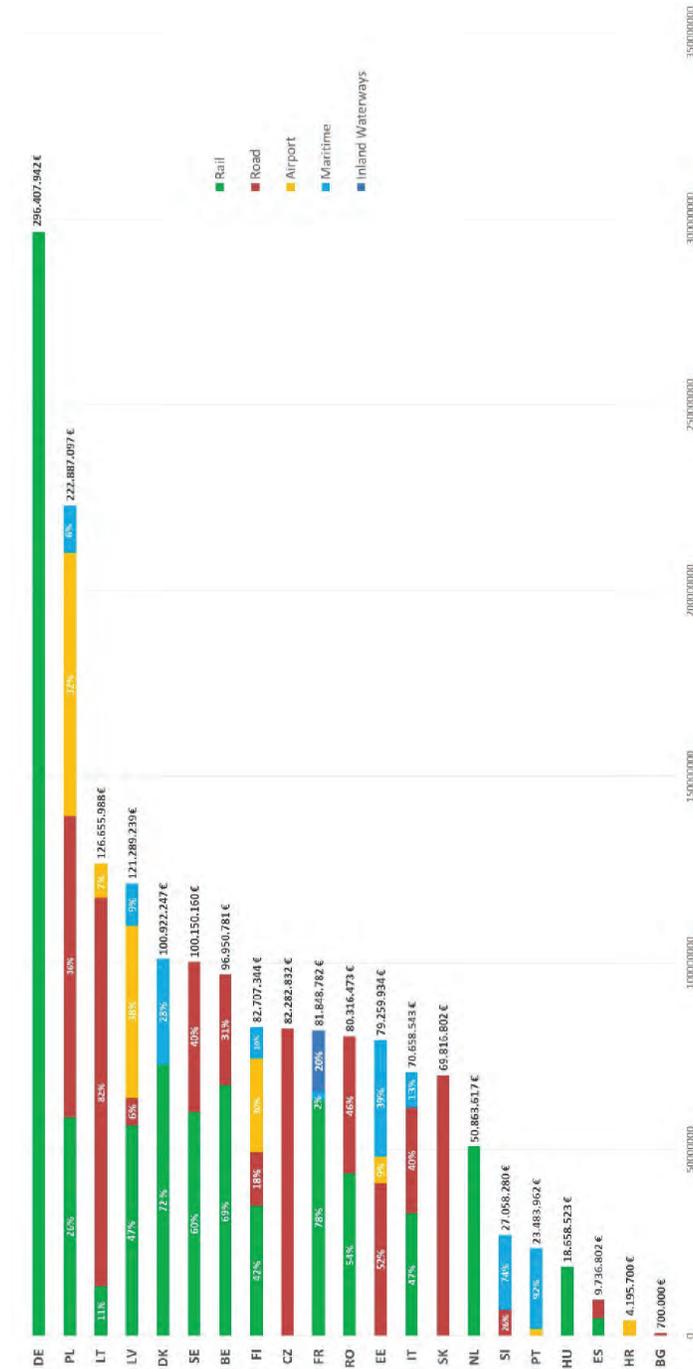


Figure 4: Member states investments in dual-use infrastructure categories assumed in the period 2021-2023 (lb.)

and accelerate military adaptation was stressed. Adaptation aims to increase forces and equipment and facilitate cross-border transit, including in peacetime.

The letter signed by the three countries is aligned with NATO's objectives of collective defence, rapid reaction and increased interoperability between allies, contributing to a fair distribution of tasks among Alliance members.

The project aims to develop transport corridors (road and rail) between the participating states, reducing bureaucracy in peacetime and optimizing the response in crisis situations, according to NATO and national priorities. The project will benefit from EU initiatives in the field of military mobility, involving coordination between NATO and the EU. Implementation at the national level will require concerted efforts between government institutions.

As shown in *figure 4*, Romania will invest over EUR 80 million in the next period, with 54% of the funds being allocated for the modernization of the railway infrastructure and 46% for the road infrastructure, both falling into the category of dual-utility infrastructures, being beneficial to both the civil and military sectors, if needed.

Another field in which the Romanian Armed Forces have taken important steps with direct effects on military mobility is the procurement of new generation military equipment, which ensures a high level of interoperability in relation to the allies. Of course, in the current security context, the issue of providing the armed forces with high-performance techniques and equipment, at a fast procurement pace and ensuring the country's security interests, represents a real challenge (Nicoară, 2023, p. 74; Hrab, 2022, p. 439). By equipping them with logistics vehicles (IVECO military trucks), armoured personnel carriers (PIRANHA 5, PIRANHA IIIC), tracked infantry fighting vehicles, main battle tanks or light tactical armoured vehicles, the fulfilment of important objectives is envisaged, namely:

improving the transport capacity at the level of the units and subunits of the Land Forces;

- ensuring interoperability with NATO systems;
- increasing operational capabilities by improving the mobility and protection of forces within combat missions and actions;
- modernization of the car fleet, an important element in the gradual development of the potential for logistical support;
- ensuring the manoeuvrability and rapid deployment of forces and means, both within the national territory and in the theatres of operations.

A relevant procurement program in terms of streamlining Romania's military mobility is the procurement of IVECO transport platforms, these vehicles being part of a broader effort to modernize and adapt to the Alliance's standards. IVECO Defence Vehicles offers a range of robust and versatile military vehicles, used for logistics and strategic transport, which comply with NATO requirements in terms of mobility, transport capacity and durability in difficult operating conditions. These transport platforms play an important role in supporting modern military operations, facilitating the rapid movement of troops and equipment across varied terrains, including in multinational operations. The adaptation and integration of these vehicles into the logistical structure of the Romanian Armed Forces contribute to the efficiency and coordination with NATO allies in joint missions and exercises. In addition, the location of the production and maintenance of these vehicles on the national territory is a major advantage for the armed forces in the medium and long run in terms of Romania's defence resources management.

CONCLUSIONS

At NATO and European Union level, a series of measures have been taken in the last decade to contribute to the efficiency of military mobility. As a result of the Russian-Ukrainian conflict, and the lessons learned in terms of actions involving M&T operations, the member states felt the urgent need to accelerate the process of streamlining military transports in the Euro-Atlantic space. In this context, in the period 2021-2023, major projects started, either under the PESCO umbrella or through EDA initiatives, which accumulate an allocated budget of over 1.7 billion Euros, for the modernization and development of infrastructures with dual civil-military applicability. The funded projects aim to develop infrastructures specific to all means of transport, namely by land (road and rail), by air and by water (sea and river).

Equally, NATO organizes regular exercises to test the mobility capacity of its forces. Exercises such as *Saber Guardian* or *Defender Europe* involve rapid movements of troops and related logistics between several states, allowing the testing of logistical corridors and the identification of possible obstacles.

Regarding the perspectives for military mobility in the Euro-Atlantic space, the focus will be on the integration of new technologies, the expansion of logistics networks and the creation of efficient multimodal hubs, which will contribute to increasing the Alliance's defence and rapid reaction capacity. *NetLogHubs, Military*

Mobility or Project Team 'Movement & Transport' are some of the EDA projects and initiatives, representative in the field of military mobility. At the same time, de-bureaucratization and digitalization are two key elements that will facilitate the fluidization of military transports between member states, by simplifying border crossing procedures, thus leading to much more efficient military mobility.

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