



# DISCUSSION PAPER FOR THE ERCI TASK FORCE MULTI-MODAL LOGISTICS DEDICATED TO "MILITARY MOBILITY"



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# **INTRODUCTORY NOTES**

### The reasons for this paper

This paper is prepared for the meeting of the ERCI Task Force MultiModal Logistics dedicated to "Military Mobility", to take place at the La Spezia Port Authority on February, 26<sup>th</sup> 2025.

ERCI – European Railway Clusters Initiative<sup>1</sup> is the European meta-cluster of the 18 Railway Clusters in Europe, covering 17 European countries both within the EU and NATO, and outside from both (Austria, Belgium, Bosnia Herzegovina, Croatia, France, Germany, Italy, Montenegro, North Macedonia, Poland, Portugal, Serbia, Slovenia, Spain, Sweden, Türkiye, United Kingdom). Established in Brussels, ERCI runs a Task Force dedicated to MultiModal Logistics co-chaired by the Clusters In Move by Railgrup<sup>2</sup> in Spain, and Logistics in Wallonia<sup>3</sup> in Belgium.

The event is conceived and organized for ERCI by the Italian Cluster DITECFER<sup>4</sup> and hosted by the Eastern Ligurian Sea Port Authority (in short La Spezia Port)<sup>5</sup>, which is a key port at the cross-roads of two TEN-T Corridors – the Scandinavian-Mediterranean and the Mediterranean – and is beneficiary of CEF funds for Military Mobility improvements of its Railway Station La Spezia Marittima with the "SWIFTRAIL" project<sup>6</sup>.

<sup>&</sup>lt;sup>1</sup> ERCI - European Railway Clusters Initiative ASBL.

<sup>&</sup>lt;sup>2</sup> In Move by Railgrup.

<sup>&</sup>lt;sup>3</sup> Logistics in Wallonia | Logistics in Wallonia.

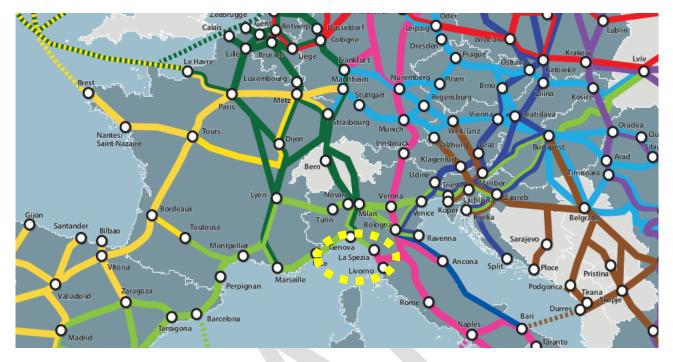
<sup>&</sup>lt;sup>4</sup> DITECFER, District for Rail Technologies, High Speed, Networks' Safety & Security Consortium.

<sup>&</sup>lt;sup>5</sup> Port of La Spezia – Autorità di Sistema Portuale del Mar Ligure Orientale.

<sup>&</sup>lt;sup>6</sup> La Spezia's SWIFTRAIL project is awarded CEF funding.



Figure 1 / Part of TEN-T Corridors with the Port of La Spezia servicing two TEN-T Corridors (source: https://transport.ec.europa.eu/document/download/3f55bcf7-d2cf-4244-bbf1fc4f132115ad\_en?filename=TEN\_T\_Schematic\_map.pdf)



The meeting aims to focus the attention of the Task Force MultiModal Logistics on a very specific, increasing priority which deals with *Military Mobility using the same public infrastructures than the Civil Logistics, in parallel to it. Same 'where', same 'when'*.

Does this impact the logistics of civil freight and passengers along railway corridors? Does this impact the logistics of civil freight in ports? Or, vice versa, can civil 'operations' learn something from Military Mobility and Military Logistics? Where cooperation / spillovers are possible?

In an era of bottlenecks to logistics and value chains disrupted due to continuous, multiple reasons ("permacrisis"), these are some of the key points that will be discussed during the meeting, together with many others.

### What Military Mobility is

According to official definitions, Military Mobility is about "facilitating the movement of military troops and assets [which] is essential for the security of European citizens, and to build a more effective, responsive and joinedup Union"<sup>7</sup>.

<sup>&</sup>lt;sup>7</sup> European Commission (Military Mobility - European Commission).



Today, Military Mobility is one of the priority elements of the EU's defence capabilities. Its goal is to ensure swift and seamless movement of military personnel, materials and assets within and beyond the EU – at short notice and on a large scale.

However, improving Military Mobility is a responsibility that goes well beyond the Ministries of Defence. It is a shared effort between a range of national and local governmental actors. Ultimately, Armed Forces are bound to civil laws to allow them to move assets, they drive across public infrastructure and apply for permits and waivers through public channels.

## Short history of Military Mobility policies in the EU

Since the 1990s, European transport infrastructure has been developed purely for civilian purposes, with military aspects having seemingly disappeared from the planning and political priorities. Since 2018, the topic gained new attention, and the EU Institutions, by adopting a first "EU Action Plan on Military Mobility", made substantial efforts to improve the aspects critical to ensure it according to own competences. In fact, ensuring that military assets can move swiftly across borders in case of a crisis depends both on suitable infrastructure and on harmonised and flexible administrative procedures, customs checks, and logistics hubs.

"Russia's military aggression against Ukraine has confirmed that we need to continue improving the capacity of transport infrastructure, such as roads, bridges, and rail tracks, allowing our armed forces and their equipment to move around the EU with ease".<sup>8</sup>

The geopolitical conflicts and tensions have contributed to the adoption of a wider Plan: the "Action Plan on Military Mobility 2.0" (2022-2026)<sup>9</sup>. Since its publication, Military Mobility has gained further momentum on the EU political agenda.

The EU's Military Mobility initiative largely originated from NATO discussions and exercises in which infrastructure, procedural and legal problems presented obstacles to the movement of troops around Europe<sup>10</sup>.

The Action Plan in fact addresses several needs required by Military Mobility:

 Multi-Modal Corridors and Logistical Hubs, which includes the Funding by CEF of transport infrastructure upgrade to handle the weight, size and scale of military movement, Aligning standards of the trans-European transport network and the EU military transport network, Long-term infrastructure planning for short-notice and large-scale movements of military forces, as well as the Fuel supply chain requirements for military transports

<sup>&</sup>lt;sup>8</sup> Former European Commissioner for Transport Adina Vălean, 10 November 2022 (<u>Press corner | European Commission</u>).
<sup>9</sup> <u>Action Plan on Military Mobility 2.0</u>.

<sup>&</sup>lt;sup>10</sup> See Calle Håkansson, "<u>The strengthened role of the European Union in defence: the case of the Military Mobility project</u>", 18 May 2023.



- Regulatory Support Measures, which includes Cross-border movement permissions, Digitalisation of logistical processes, Enhanced IT Logistics
- **Resilience and Preparedness**, which includes Protection against cybersecurity risks and other hybrid threats, Climate resilience, Energy security.

For the first time, nowadays the EU has a budget for Military Mobility, consisting mainly of €1,69 billion for dualuse infrastructure under the **CEF (Connecting Europe Facility)** programme, but not only. The EU achieves its current needs for Military Mobility also through specific **PESCO (Permanent Structured Cooperation)** projects, and its future needs thanks to R&D, the development of interoperable logistical and digital systems, as well as industrial improvements by the **EDF (European Defence Fund)**.

"In 2022, shortly after the invasion, the **Belgian Defence** was to deploy within 5 days a 250 men strong detachment with vehicles, equipment and ammunitions, from their barracks in the Ardennes to the Black Sea coast in Romania, **crossing 5 borders by rail, road and air**. I speak about a small Belgian detachment, not about a US brigade or more which is a problem of another magnitude. Despite this, the practical problems encountered in this deployment were numerous.

(...)

The cooperation between military and civilian institutions is essential. Our civilian infrastructure—from highways to railways to airports and harbours and waterways—forms the backbone of our military mobility. By working closely with our civilian partners, public and private, we can optimize these assets for dual use. Making sure that they are **efficient for everyday commerce but also adequate for military needs**. Interoperability is definitely not a strictly military concept<sup>11</sup>.

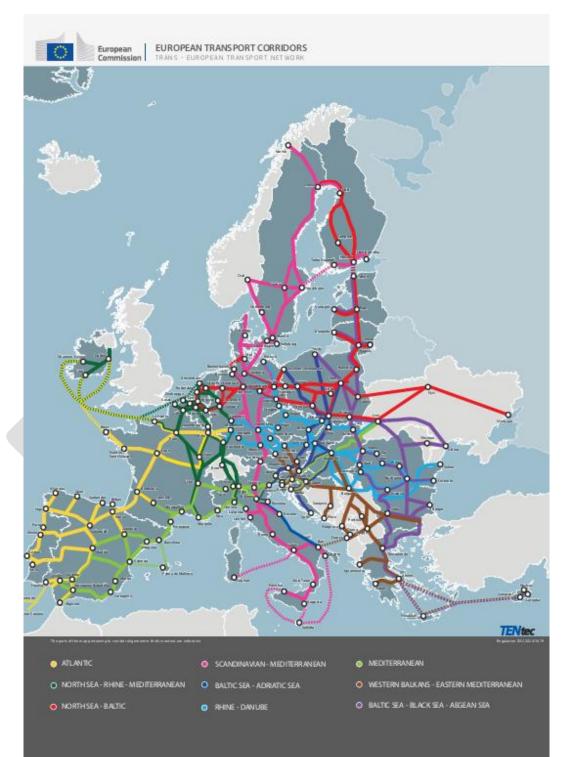
<sup>&</sup>lt;sup>11</sup> <u>Seminar on Dual Use – Military Mobility</u>, Belgian Presidency of the EU, February 2024.



# **KEY MAPS**

# Trans-European Corridors (TEN-T)

Figure 2 | TEN-T Corridors (source: https://transport.ec.europa.eu/document/download/3f55bcf7-d2cf-4244-bbf1fc4f132115ad\_en?filename=TEN\_T\_Schematic\_map.pdf)





# TEN-T Rail Freight, Core Ports, and Rail-Road Terminals

Figure 3 / TEN-T Rail Freight, Core Ports and Rail-Road Terminals (source: https://transport.ec.europa.eu/document/download/822e285a-4265-47bb-9163fb33a921a9be\_en?filename=EU\_overview\_map\_RailFreight.pdf)



### **NATO Members**

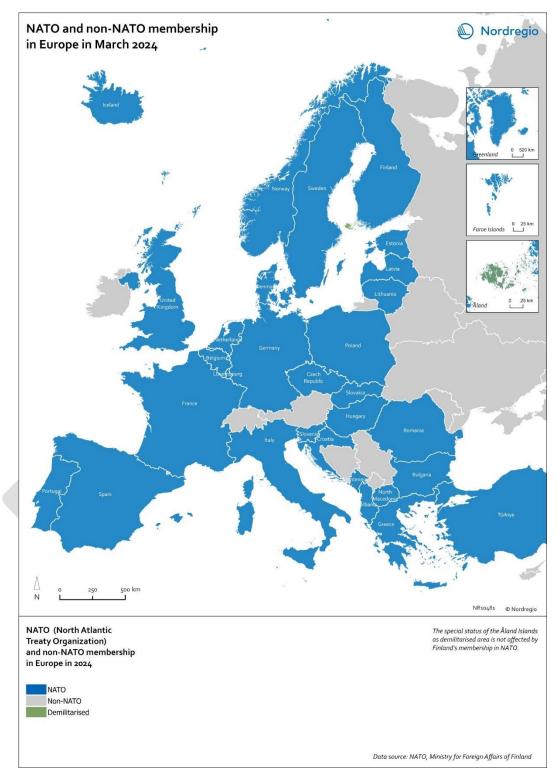


Figure 4 | NATO Members and non-members in 2024 (soruce: https://nordregio.org/maps/nato-and-non-nato-membership-in-europe-in-2024)



### European Transport Interconnections to NATO's Eastern Flank

**Germany's Linchpin Function** How European Transportation Routes Interconnect to NATO's Eastern Flank STOCKHOLM RAIL NETWORK RIVERS NATO'S EASTERN FLANK HIGHWAYS RAMSTEIN AIR BASE COPENHAGEN HARBOURS AMSTERDAM A2 WARSAW A 4 LONDON

Figure 5 | European Transport interconnections to NATO's Eastern Flank (source: <u>https://dgap.org/en/research/publications/military-mobility</u>)

This map is not intended to be exhaustive for any of the elements listed. Instead, its aim is to highlight Germany's linchpin function by illustrating the most crucial transportation points and respective routes. Similar illustrations are based on the European Commission's Trans-European Transportation Network (TEN-T), which groups various means of transport, such as railways, roads, and waterways, by corridors. | Source: Author's own illustration





# ONGOING ACTIONS FOR MILITARY MOBILITY IN THE EU

#### European-level initiatives

#### TEN-T Transport Infrastructure adaptation for dual-use

The European Commission proposal in 2021 to revise the Trans-European Transport networks Regulation included two key aspects that would facilitate Military Mobility within and beyond the EU: firstly, **several transport infrastructure requirements, especially for rail, are strengthened**; and secondly, the **updated maps in certain instances also reflect the military needs**.

With a view to further aligning standards of the Trans-European Transport network and the EU military transport network, on 23 October 2023 the EU Council adopted the **revised military requirements for "Multi-Modal Transport Corridors"**. The revision process also included consultations with NATO. The enlarged scope of military requirements **encompasses logistic hubs, fuel supply-chain infrastructure**, lesson identified on Russia's war of aggression against Ukraine and **military criteria for the evaluation of dual-use infrastructure project proposals**.

To make this possible, with three calls undertaken between 2021 and 2023 under the **Connecting Europe Facility (CEF)**, the European Commission supported **95 Military Mobility projects** with €1,74 billion euro. The available budget for this purpose has been exhausted. The majority of funds were devoted to Railway-related projects.

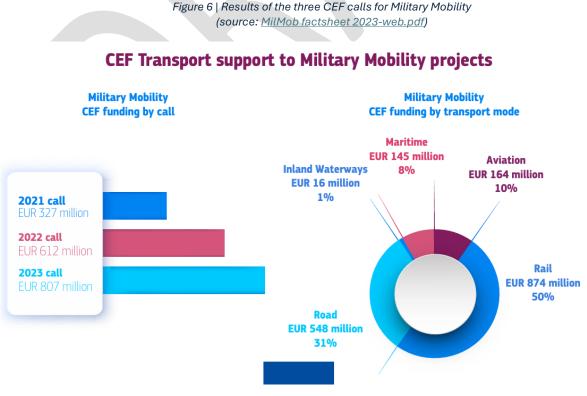
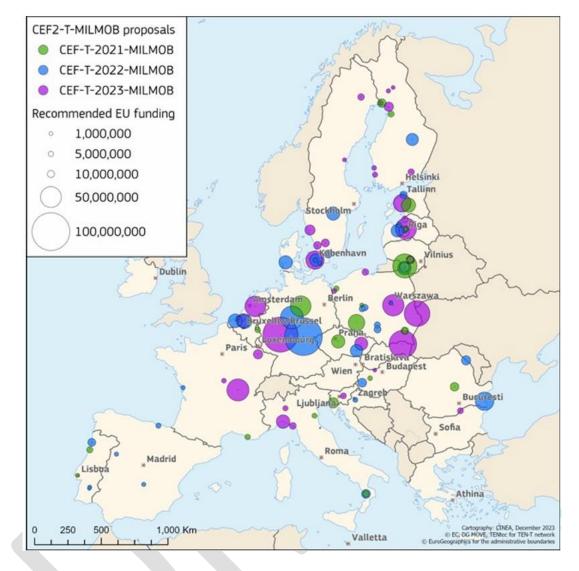




Figure 7 / Localisation of TEN-T adaptation projects to Military Mobility requirements funded by CEF under the three calls (https://cinea.ec.europa.eu/system/files/2023-04/MilMob%20factsheet%202023-web.pdf)



# Military Mobility project under PESCO: simplify and standardize cross-border military transport procedures (the "Military Schengen")

One key PESCO project is "Military Mobility" (MM), established in 2018 and that will finish in 2025<sup>12</sup>.

The project is coordinated by The Netherlands and engages in total 28 countries<sup>13</sup>: **Austria**, **Belgium**, Bulgaria, Canada, Cyprus, **Croatia**, Czech Republic, Denmark, Estonia, Finland, **France**, **Germany**, Greece, Hungary, **Italy**, Latvia, Lithuania, Luxembourg, Norway, **Poland**, **Portugal**, Romania, Slovakia, **Slovenia**, **Spain**,

<sup>&</sup>lt;sup>12</sup> Military Mobility (MM) | PESCO.

<sup>&</sup>lt;sup>13</sup> In bold the countries covered by ERCI Clusters.



**Sweden**, **United Kingdom**, United States of America (Switzerland is in the procedure to join too<sup>14</sup>, while Ireland is *Observer*).

The project supports countries' commitment to **simplify and standardize cross-border military transport procedures** to enable the unhindered movement of military personnel and assets within the borders of the EU. This entails **avoiding long bureaucratic procedures to move through or over EU member states, be it via rail, road, air or sea**.

"Using a **fictitious example**: Spanish military units or units want to take part in an exercise of armed forces on Polish territory. To do so, both personnel and material have to cross France and Germany on their way from Spain to Poland, depending on the route chosen. As part of the Military Mobility project, the approval and entry processes have been simplified and standardised across Europe. This ensures that the forces from Spain can enter France and Germany with little administrative effort and after a short application period, cross the countries and finally continue on to Poland. In addition, Spain can rely on the fact that the transport infrastructure selected for transport in France and Germany does not represent an obstacle to the transfer of particularly large and heavy equipment. Furthermore, as part of host nation support (i.e. support for friendly or allied armed forces in their own country), fuel can be easily replenished en route and the marching troops can be supplied and supported. This is even more important than during exercises in the event of a crisis, where there is no time for lengthy authorisation procedures and the armed forces have to react quickly. A faster response capability in turn strengthens the European Union and its actions as a whole"<sup>15</sup>.

# European Logistics Hubs under PESCO: concerting operated logistic flow management capabilities

One of the PESCO projects which accelerates Military Mobility is "**Network of Logistic Hubs in Europe & Support to Operations**" (NetLogHubs), established in 2018 and that will finish in 2025<sup>16</sup>.

The project is coordinated by **Germany** together with Cyprus and **France**, and engages in total 18 countries<sup>17</sup>: **Belgium**, Bulgaria, Canada, **Croatia**, Greece, Hungary, Ireland, **Italy**, Lithuania, Luxembourg, Slovakia, **Slovenia**, **Spain**, **Poland**, The Netherlands (Czech Republic, Finland, Ireland, Latvia, Portugal, Romania and Sweden are *Observers*).

The project aims to the **establishment and operation of a network of logistic hubs within Europe** for joint, central storage, pre-stationing, preparation and relocation of operating resources, spare parts or ammunition, maintenance, recovery, storage of food, fuel, etc., **entailing concertedly operated logistic flow management capabilities**. Logistics services can be better coordinated and provided in a **more demand-orientated manner** 

<sup>&</sup>lt;sup>14</sup> Euronews, <u>Neutral Switzerland to join EU military mobility project</u>, 14 January 2025..

<sup>&</sup>lt;sup>15</sup> Claudia Rödel, Florian Manthey, <u>Military Mobility</u>, Bunderministerium des Verteitigungs.

<sup>&</sup>lt;sup>16</sup> <u>Network of Logistic Hubs in Europe and Support to Operations (NetLogHubs) | PESCO.</u>

<sup>&</sup>lt;sup>17</sup> In bold the countries covered by ERCI Clusters.



**as a result of networking**. This **increases the availability of material and capacities**, creates **cost savings** and improves the sustainability of military operations, operational commitments and exercises. Ultimately, the project supports the deployment/ redeployment process and the sustainment of operations in order to improve strategic logistic support and force projection in EU Missions and Operations, accelerating Military Mobility.

"Explained using a **fictitious example**: The nations involved in a multinational operation in the Baltic need material. They need spare parts for armoured vehicles, equipment for information technology and ammunition for rifles. These requirements would be notified via a central management authority, such as the Joint Coordination Centre. This centre would decide at which logistics node in the network the corresponding material from the nations should be brought together. For example, spare parts from the Netherlands, equipment from France and ammunition from Slovenia could be provided. From their national storage facilities, the various supply items are then initially sent to the German LogHub in Pfungstadt, for example, from where they are then scheduled at an early stage and bundled together and transported quickly and efficiently to their destination in the Baltic States using the various modes of transport as required. These carriers can be road, rail, sea and/or air routes"<sup>18</sup>.

The NetLogHubs project has implemented several specific activities and procedures to improve military logistics across Europe:

- Concertedly Operated Logistic Flow Management:
  - The hubs work together to manage logistic flows efficiently, ensuring that resources are allocated where they are needed most.
- Abbreviated Transport-Related Authorization Procedures:
  - Simplified and expedited authorization processes for transport, reducing delays and improving the speed of deployment and redeployment.
- Cross-Border Solutions:
  - Implementing solutions that facilitate seamless military transport across borders, enhancing cooperation and coordination among EU member states.
- Connection of Existing European Initiatives:
  - Integrating various existing European logistic initiatives under one umbrella, creating a more cohesive and efficient logistic network.
- Strategic Location of Hubs:

<sup>&</sup>lt;sup>18</sup> Claudia Rödel, <u>Network of LogHubs in Europe and Support to Operations</u>, Bundesministerium des Verteitigungs.



- Establishing hubs in strategic locations such as ports, airports, and military bases to optimize the logistics network and ensure rapid response capabilities.
- Regular Communication and Coordination:
  - Maintaining regular communication and coordination among the hubs to ensure smooth operations and address any challenges promptly.

These activities collectively enhance the strategic logistic support and force projection capabilities of the EU, making military logistics more efficient and resilient.

#### Logistics Hubs meet TEN-T Corridors

Each multimodal corridor in Europe is expected to be supported by a dedicated Logistic Hub, entailing a variety of services to support military movements, including but not limited to RSOM (Receiving, Staging & Onward Movement) and convoying support facilities to streamline deployment activities.

Official documents and interviews about the "NetLogHubs" project mention 27 *LogHubs* participating. Below, an AI-based research with Microsoft Copilot found 37 LogHubs in Europe. Considering the countries participating in the PESCO project, 26 out of 27 actively participating should/could be the ones in bold. However, further reading showed that one key LogHub in Germany is in Pfungstadt<sup>19</sup>, in Hessen, which is not included in the list below; nor are included in the list the LogHub of Kutno in Poland and the LogHub of Brindisi in Italy<sup>20</sup>.

Country	Name	Location	Defence Command in Charge
Austria	LogHub Vienna	Reserved area of the Port of Vienna	Austrian Army Logistics Command
Belgium	LogHub Brussels	Reserved area of the Port of Antwerp	Belgian Army Logistics Command
Belgium	LogHub Antwerp	Intermodal area near Brussels Airport	Belgian Air Force Logistics Command
Belgium	LogHub Liège	Military base in Liège	Belgian Navy Logistics Command
Bulgaria	LogHub Sofia	Reserved area of the Port of Burgas	Bulgarian Army Logistics Command

 Table 1 | Logistics Hubs potentially part of the PESCO "NetLogHubs" project (source: Al-based research made by the Author)

<sup>&</sup>lt;sup>19</sup> PESCO – Network of Logistic Hubs and Support to Operations – Blauer Bund e.V..

<sup>&</sup>lt;sup>20</sup> Ibidem.



Croa	atia	LogHub Zagreb	Intermodal area near Zagreb Airport	Croatian Air Force Logistics Command
Сурі	rus	LogHub Nicosia	Military base in Nicosia	Cypriot National Guard Logistics Command
Czec Repu	-	LogHub Prague	Reserved area of the Port of Prague	Czech Army Logistics Command
Denr	mark	LogHub Copenhagen	Intermodal area near Copenhagen Airport	Danish Air Force Logistics Command
Esto	nia	LogHub Tallinn	Reserved area of the Port of Tallinn	Estonian Army Logistics Command
Esto	nia	LogHub Tapa	Military base in Tapa	Estonian Defence Forces Logistics Command
Finla	and	LogHub Helsinki	Reserved area of the Port of Helsinki	Finnish Army Logistics Command
Fran	ice	LogHub Paris	Reserved area of the Port of Le Havre	French Army Logistics Command
Fran	ice	LogHub Lyon	Intermodal area near Lyon-Saint Exupéry Airport	French Air Force Logistics Command
Fran	ice	LogHub Marseille	Military base in Marseille	French Navy Logistics Command
Gerr	nany	LogHub Berlin	Reserved area of the Port of Hamburg	German Army Logistics Command
Gree	ece	LogHub Athens	Intermodal area near Athens Airport	Greek Air Force Logistics Command
Hung	gary	LogHub Budapest	Military base in Budapest	Hungarian Defence Forces Logistics Command
Irela	nd	LogHub Dublin	Reserved area of the Port of Dublin	Irish Army Logistics Command
Italy		LogHub North	Reserved area of the Port of Genoa	Italian Army Logistics Command
Italy		LogHub Central	Intermodal area near Rome's Fiumicino Airport	Italian Air Force Logistics Command



Italy	LogHub South	Military base in Naples	Italian Navy Logistics Command
Latvia	LogHub Riga	Reserved area of the Port of Riga	Latvian Army Logistics Command
Latvia	LogHub Liepāja	Military base in Liepāja	Latvian Navy Logistics Command
Lithuania	LogHub Vilnius	Reserved area of the Port of Klaipėda	Lithuanian Army Logistics Command
Luxembourg	LogHub Luxembourg	Intermodal area near Luxembourg Airport	Luxembourg Army Logistics Command
Malta	LogHub Valletta	Reserved area of the Port of Valletta	Maltese Army Logistics Command
Netherlands	LogHub Amsterdam	Intermodal area near Amsterdam Airport Schiphol	Dutch Air Force Logistics Command
Poland	LogHub Warsaw	Military base in Warsaw	Polish Army Logistics Command
Portugal	LogHub Lisbon	Reserved area of the Port of Lisbon	Portuguese Army Logistics Command
Romania	LogHub Bucharest	Intermodal area near Bucharest Airport	Romanian Air Force Logistics Command
Slovakia	LogHub Bratislava	Military base in Bratislava	Slovak Army Logistics Command
Slovenia	LogHub Ljubljana	Reserved area of the Port of Koper	Slovenian Army Logistics Command
Spain	LogHub Madrid	Reserved area of the Port of Valencia	Spanish Army Logistics Command
Spain	LogHub Barcelona	Intermodal area near Barcelona's El Prat Airport	Spanish Air Force Logistics Command
Spain	LogHub Seville	Military base in Seville	Spanish Navy Logistics Command
Sweden	LogHub Stockholm	Reserved area of the Port of Gothenburg	Swedish Army Logistics Command



## National-level initiatives (analysis still ongoing)

Where available, data about specific actions implemented by EU Member States is detailed below.

#### State-level: Italy, Albania, Bulgaria and North Macedonia

Upon Albania's proposal, Italy, Albania, Bulgaria and North Macedonia signed a Letter of Intent for cross-border Military Mobility cooperation in July 2024<sup>21</sup>. The initiative seeks to establish a harmonized Military Mobility corridor across the countries **within the TEN-T Corridor VIII**, which will enable a faster flow of military forces and equipment.

The approved corridor will stretch from Italy through Albania and North Macedonia to Bulgaria, aiming to expedite the movement of military equipment during exercises and potential conflicts.

The primary objective of this initiative is to coordinate efforts in overcoming barriers that hinder the swift movement of military personnel and cargo. These **obstacles** include:

- varying national regulations for border crossings
- inadequate infrastructure capacity
- inefficient information exchange systems
- challenges in coordinating use between NATO and EU protocols.

#### Railways-level: Italy

The defence company Leonardo and Italian Railway Infrastructure Manager Rete Ferroviaria Italiana (RFI) have signed a partnership agreement in April 2024 to implement a **joint Military Mobility project**<sup>22</sup>. The initiative will add to existing infrastructure digital capabilities, facilitating the swift and large-scale movement of military personnel within and beyond Europe, even at short notice and on a large scale, ensuring safe, sustainable, and resilient transportation capacity.

Leonardo and RFI plan to identify the architecture and functions of the integrated digital platform for managing Military Mobility traffic to transport military material in ordinary and extraordinary circumstances using dual-use infrastructure. The platform will incorporate innovative solutions for accessing heterogeneous data sources and optimising their use through automated processes.

Under the partnership agreement, Leonardo will leverage its expertise in Global Security and Monitoring, supported by advanced AI techniques, in several areas: surveying and monitoring dual-use infrastructure, modelling complex infrastructures and services, and simulating and optimising complex networks. Leonardo's Global Security Operation Centre (SOC) will also ensure high data protection standards by employing proprietary

<sup>&</sup>lt;sup>21</sup> <u>Italy, Albania, North Macedonia, and Bulgaria Forge Military Mobility Corridor.</u>

<sup>&</sup>lt;sup>22</sup> Leonardo e Rete Ferroviaria Italiana sottoscrivono un accordo sulla Military Mobility.



Threat Intelligence solutions (characterising and analysing potential cyber threats through the collection and analysis of data from open sources) and Live Endpoint Security (for the management and security of devices connected with the IT and OT networks).

High-Performance Computing (HPC) with davinci-1, one of the most powerful supercomputers in the aerospace, defence and security sectors, will enable the management of vast amounts of data. The platform will also incorporate advanced features based on satellite services, including those provided by COSMO-SkyMed, and will use a secure communication infrastructure. This infrastructure will be interoperable with various network types, such as TETRA, LTE, and 4G/5G, to ensure high levels of service and security.

The agreement entails using specialised expertise in security and railway transport. It involves integrating RFI's railway traffic management application components with the other air and land mobility platforms required to generate a context of technological interoperability based on principles of highly robust security.

## PESCO / State-level: The Netherlands-Germany-Poland model corridor for crossborder troop movements

The Netherlands, Germany and Poland have signed a declaration of intent in January 2024 to establish a model corridor for cross-border troop movements from west to east - in particular to the NATO's eastern flank<sup>23</sup>.

European procedures and processes are being accelerated as part of the PESCO project "Military Mobility". The **NATO support command JSEC in Ulm**, which coordinates NATO's troop movements in the European alliance area, **is responsible for designing the corridor**.

# PESCO / State-level: Romania, Bulgaria, Greece corridor for cross-border troop movements

Romania, Bulgaria and Greece signed a deal in July 2024 to enable swift cross-border movement of troops and weapons to NATO's eastern flank<sup>24</sup>.

The initiative aims to optimize transport corridors to respond to Military Mobility needs by **creating road and rail supply lines** between the participating states, reducing peace-time bureaucracy and maximizing efficiency in case of emergency situations. The three states **could also connect their ports in the Aegean and Black seas**.

<sup>&</sup>lt;sup>23</sup> Reuters, <u>Three NATO allies sign deal to speed up military deployments to eastern flank</u>, 30 January 2024.

<sup>&</sup>lt;sup>24</sup> Reuters, <u>Romania, Bulgaria, Greece sign deal to boost military mobility</u>, 11 July 2024.



#### State-level: Denmark, Finland, Iceland, Norway and Sweden

Denmark, Finland, Iceland, Norway and Sweden are part of the Nordic Defence Cooperation (NORDEFCO). This cooperation started in 2009 and primarily aims to increase the countries' defence capabilities and enhance possibilities to take joint action if a crisis arises in the neighbourhood.

NORDEFCO work on Military Mobility was expanded during 2023 to include a broader enablement perspective. The Nordic nations agreed to continue to improve aspects of enablement in a Nordic context with the long-term goal of 'Seamless Logistics in a Borderless Nordic'<sup>25</sup>. The NORDEFCO Vision 2030<sup>26</sup> emphasises Military Mobility as a vital enabler and outlines that Nordic cooperation will ensure minimal restrictions of movement of military equipment and units.

As a result, the countries signed in November 2024 a joint Letter of Intent (LOI) for the Establishment of harmonized Military Mobility Corridors between their five nations<sup>27</sup> with the goal to develop the needed solutions within a time period of 18 month.

The Participants intend to collaborate on establishing harmonized corridors for Military Mobility across their nations' territories with the following objectives:

#### 1. In the Field of Cross-Border Movement Regulations:

- a) strive to harmonise the information exchange requirements;
- b) strive to unify forms and templates required to be filled by transiting nations;
- c) identify solutions to centralize and simplify the cross-border movement process, for instance Road Movement Bids and Road Movement Clearances;
- d) examine the possibilities to minimize convoy escort requirements;
- e) investigate possibilities to remove limitations for military convoy driving hours;
- f) strive to simplify and harmonize customs handling procedures;
- g) strive to unify military vehicle and convoy markings;
- h) identify solutions to harmonize rules for military convoy compositions in order to allow for more flexibility;
- i) as applicable, identify possibilities of giving military express trains priority over civilian trains in order to expedite the cross-border movement process;
- j) strive to simplify procedures for military personnel border-crossing;
- k) strive to identify additional topics to simplify and harmonize cross-border movement regulations for Military Mobility;
- I) strive to implement the objectives of the EU Action Plan on Military Mobility 2.0 and NATO requirements concerning Military Mobility.
- 2. In the Field of Tracking and Coordination of commonly used Movement Assets:
  - a) identify potential solutions to track the availability of limited movement assets such as rail cars for heavy military equipment;

<sup>&</sup>lt;sup>25</sup> NORDEFCO, <u>Annual Report 2023</u>.

<sup>&</sup>lt;sup>26</sup> NORDEFCO, <u>Vision for Nordic Defence Cooperation</u>.

<sup>&</sup>lt;sup>27</sup> Government of Sweden, Letter of Intent on military mobility between Nordic countries.



- b) strive to set guidelines for the use of limited available movement assets;
- c) examine options to efficiently pool and share limited available movement assets;
- d) strive to make surplus transport capabilities available.

#### 3. In the Field of Information Exchange Processes and Interoperability:

- a) strive to enable seamless and direct communication between national movement coordination centres;
- b) identify options to effectively utilize already established solutions like the Logistics Functional Area Services (LOGFAS);
- c) explore possibilities to scale already established national solutions to other Allies and partners;
- d) examine the chances and effects of current and future information exchange systems;
- e) identify solutions for real-time convoy tracking and information sharing.
- 4. In the Field of Infrastructure Development Synchronization:
  - a) strive to **synchronize the development of cross-border Military Mobility infrastructure** in order to enable seamless movements between the nations;
  - b) strive to develop a network of logistic infrastructure alongside movement corridors;
  - c) explore funding mechanisms that can be utilized for infrastructure development related to the harmonized corridor for Military Mobility;
  - d) strive to identify existing gaps on the corridors and investigate possibilities to implement mitigation measures to overcome existing hurdles or possibilities to upgrade identified bottlenecks up to military standards.

#### State-level: The Netherlands

According to "National Plan Military Mobility"<sup>28</sup>, The Netherlands will establish **three nationwide multimodal corridors including three logistic hubs** to support (large scale) military movements. These corridors will be aligned with the military requirements for military mobility, both physically and geographically, and supported by effective processes and regulations in order to meet the timelines to which the Netherlands has committed itself internationally.

Military movements within the Netherlands are currently being planned on an ad-hoc, case by case basis by dedicated and experienced military and civilian personnel. Often, the same corridors are used by Dutch and allied forces, along with the same ports of embarkation (POE) and debarkation (POD) and the same convoy support centres. There is a frequent repetition of requests for local permits, slots for rail tracks or dangerous goods waivers. These routes are largely predictable. Established multimodal corridors in the Netherlands will simplify the planning processes and will make military movements more effective and efficient. This shifts the focus from questions of 'where' and 'what' to a focus on 'when'. The choice for three corridors stems from the military planning process. NATO doctrine emphasises the importance of redundancy and resilience in planning crises response measures. Having two corridors available for military logistics, one outbound and one return,

<sup>&</sup>lt;sup>28</sup> <u>https://www.tweedekamer.nl/downloads/document?id=2021D02821</u>.



leaves a third corridor available for civilian and refugee purposes and builds in strategic redundancy should one route be unavailable. Additionally, having fixed corridors in place increases transparency, predictability and creates an opportunity for long term agreements with local public and private partners, from dangerous goods waivers to supply contracts. It increases the value of the Netherlands as a strategic and reliable security partner both nationally and internationally. In close cooperation with the ministry of Infrastructure & Water Management, priority shall be given to optimising the two most frequently used corridors.



# LESSONS FROM THE MANAGEMENT OF MILITARY MOBILITY TO THE PURPOSE OF CIVIL-ONLY OR HYBRID LOGISTICS (*analysis ongoing*)

#### Planning

- Setting *Criteria for Success* around being aligned among countries and with the EU: (i) All participating Member states have developed and implemented a National Plan on Military Mobility. (ii) These National Plans are aligned with each other. (iii) These National Plans are aligned with the EU Action Plan on Military Mobility. (*PESCO project on Military Mobility*)
- There is a frequent repetition of requests for local permits, slots for rail tracks or dangerous goods waivers. These routes are largely predictable. Established multimodal corridors in the Netherlands will simplify the planning processes and will make military movements more effective and efficient. This shifts the focus from questions of 'where' and 'what' to a focus on 'when'. (The Netherlands Military Mobility Plan)
- 3. The choice for three corridors stems from the military planning process. NATO doctrine emphasises the importance of redundancy and resilience in planning crises response measures. Having two corridors available for military logistics, one outbound and one return, leaves a third corridor available for civilian and refugee purposes and builds in strategic redundancy should one route be unavailable. (*The Netherlands Military Mobility Plan*)
- 4. Having fixed corridors in place increases transparency, predictability and creates an opportunity for long-term agreements with local public and private partners, from dangerous goods waivers to supply contracts. (*The Netherlands Military Mobility Plan*)

## Operations

1. Setting Criteria for Success around the management of logistics hubs: (i) Additional LogHubs capable to provide the basic logistic services have been established in accordance to national capacities, capabilities, and obligations; (ii) A Support to Operations/Support to Logistics was established with the necessary level of authority enabling it to coordinate the logistic flows and manage stock levels within the network; (iii) Dynamic lines of communications in all domains between the LogHubs including options to contribute to a strategic deployment are accessible in order to connect the individual national installations to a Network of LogHubs; (iv) Contracts and/or arrangements guaranteeing reliable access to intra-network and strategic transportation assets were negotiated and are readily available for planning and execution purposes; (v) A web-based software application to manage the demand and supply process, to provide transparent information for the nations regarding the status of commodities in transit or stored, is online; (vi) The demand/request process including the coordination of granting national movement permissions, customs affairs, and standardized regulations



regarding the handling of dangerous goods in all domains were developed, negotiated, and activated within the ambit of the participating Member states; (vii) A **suitable reimbursement mechanism** was agreed and activated within the ambit of the participating Member States; (viii) Upon request, some LogHubs can **provide an increased level of logistic services** such as: prepositioning and long-term storage (Initial Operational Capability: reception, handling, storing (temporary), supplying); (ix) Workshops and facilities available for user nations to conduct basic scheduled or value-retaining maintenance work in accordance with national regulations. (*PESCO project on Network of Logistics Hubs*)

- 2. Identify solutions to harmonize rules for military convoy compositions in order to allow for more flexibility. (Denmark, Finland, Iceland, Norway, Sweden Letter of Intent on Military Mobility)
- 3. Identify possibilities of giving military express trains priority over civilian trains in order to expedite the cross-border movement process (Denmark, Finland, Iceland, Norway, Sweden Letter of Intent on Military Mobility)
- 4. Identify solutions for real-time convoy tracking and information sharing (Denmark, Finland, Iceland, Norway, Sweden Letter of Intent on Military Mobility)
- 5. ...