

# report

## **THE WESTERN MEDITERRANEAN TRANSPORT AND LOGISTICS SECTOR IN THE POST-COVID-19 ERA:**

Seizing New Opportunities, Accelerating Transitions

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### Introduction

The COVID-19 and its socioeconomic consequences have been affecting trade and supply chains worldwide for the last two years. Although global connectivity has been reduced, the transport and logistics sector has played a key role to ensure the continuous provision of food and goods in all regions of the world. This crisis has been somewhat perceived as an accelerator of the processes that were and will continue to affect the sector in the upcoming years: the digital transformation, the sustainability transition, and the growing awareness of the vulnerabilities of global value chains. This emerging context poses significant challenges to the sector together with great opportunities in a region such as the Western Mediterranean. Understanding them to design the adequate policies that will allow the transport and logistics sector to play its crucial role as a driver for regional integration and prosperity is essential.

On 6 October 2021, the Ministers of Transport of the ten countries of the 5+5 Dialogue met virtually at the invitation of the Maltese presidency of the GTMO 5+5 (Group of Transport Ministers for the Western Mediterranean) to discuss ways to enhance the connectivity and sustainability of the transport sector, as well as the improvement of the regional infrastructures, which are all necessary to make the sector a cornerstone of the post-COVID-19 recovery.

Building upon its mandate to provide inputs from the academia and the civil society to the works of the 5+5 Dialogue, **the MedThink 5+5 network** of Western Mediterranean think tanks organised a two-day thematic webinar back-to-back with the Ministerial Conference of the GTMO 5+5. This event,

co-organised by the **European Institute of the Mediterranean (IEMed)** and the **Centre for Transportation Studies for the Western Mediterranean (CETMO)**, technical Secretariat of GTMO 5+5), was also the continuation of the works done through the publication of the Policy Study “**Mediterranean Transport and Logistics in a Post-COVID-19 Era: Prospects and Opportunities**”, which aimed at analysing and discussing the impacts of the COVID-19 and the future of transport and logistics through multisectoral and multidisciplinary lenses.

This thematic webinar brought together more than 25 experts from the academia, international organisations, and representatives from transport and logistics organisations, to underline the importance of cooperation in the field of transport and logistics in the Western Mediterranean. It was organised into four main sessions addressing current and future trends in the transport and logistics sector: the prospects for a reconfiguration of global value chains in favour of the Western Mediterranean; the acceleration of the decarbonisation of transport to reach sustainability objectives; the role of digital transition in incentivising innovation, growth, and competitiveness in the region; and finally the needed efforts to implement the GTMO 5+5 Multimodal Network to increase connectivity and regional integration in the Western Mediterranean.

### **Opening and Welcome Remarks**

The thematic seminar was opened by Amb. Senén Florensa, President Executive of the European Institute of the Mediterranean (IEMed), and Pere Padrosa, President of the CETMO Foundation, both as co-organisers of the event. They shared their remarks regarding the situation of the transport and logistics sector in the Western Mediterranean pointing out the impact of the COVID-19 pandemic, which led to drastic mobility restrictions with important and negative consequences on economic sectors highly dependent on transport and logistics (international trade, tourism). At the same time, the disruption of global value chains, the sustainability paradigm, and the unavoidable digitalisation process are challenging the current transport and logistics model.

As highlighted by Pere Pedrosa, the post-COVID-19 period is a pivotal moment for the transport and logistics sector. There are only two alternatives: seizing the opportunities brought about by the crisis and fully participating in the current transitions or prolonging the status quo and losing competitiveness. Responding to this challenge strengthens the *raison d'être* of the Centre for Transportation Studies for the Western Mediterranean (CETMO) whose mission is to contribute to developing knowledge and making it available to the countries of the Western Mediterranean. In that sense, it contributes decisively to the regional cooperation in the framework of the 5+5 Dialogue. As stressed by Ambassador Florensa, based on this knowledge produced in the framework of the MedThink 5+5 network, the Western Mediterranean Forum has an important role to play in identifying policies and devising regional strategies to seize the transformation opportunities in the post-COVID-19 era.

The Minister for Transport, Infrastructure, and Capital Projects of Malta, Mr. Ian Borg, host of the subsequent Ministerial Conference on Transport of the 5+5 Dialogue, delivered a keynote speech highlighting the need to better prepare and adapt the transport and logistics sector to the post-COVID-19 realities.

Minister Borg stressed that in Malta, while the mobility of people came almost to a standstill, the freight logistics and operations have proved to be efficient in providing urgently needed medication and supplies during the pandemic. However, this was not the case everywhere. On the contrary, there was a 35 to 40% decrease in cargo handled by ports in the Mediterranean Sea as a result of substantial reductions of the mainline carriers. The aviation sector, key for the Euro-Mediterranean connectivity, was the worst hit, with at least a 60% reduction in airlines passengers, creating billion euros of losses. These figures underscore the importance to improve the resilience and sustainability of the Mediterranean transport sector, according to Minister Borg who reminded that the sector was already undergoing drastic transformations prior to the pandemic to adapt itself to the digitalisation and decarbonisation processes. The Western Mediterranean region must ensure the right management of these transitions while providing the impetus for recovery.

In this context, Minister Borg stressed that Malta was starting its two-year presidency of the GTMO 5+5 with the firm commitment to contribute to enhancing the connectivity and sustainability of the transport sector in the Western Mediterranean, as well as the improvement of transport infrastructures in the region. The present gathering of academics, experts, and practitioners was considered by the minister to be particularly useful to the work of the GTMO 5+5, as a contribution to identifying the pitfalls, the opportunities, the cooperation frameworks, and the policies required in the Western Mediterranean. In that sense, he pointed out the importance of adopting a bottom-up approach to ensure that all voices are heard. Even if there might be slightly different priorities between countries of the region, all of them have been affected by the pandemic, witness the impacts of climate change, and can benefit from the digital transition. Dialogue and cooperation are therefore the only means to keep the Mediterranean on track.

### **Post-COVID-19 trends and scenarios: towards a more integrated and connected Western Mediterranean transport and logistics sector?**

Transport infrastructures are a very important enabler of economic integration and development, as they facilitate the movement of people, goods, and services across the borders. Yet, in the Euro-Mediterranean region, especially among the Southern Mediterranean countries, infrastructures' connectivity is still very limited despite investments in extensive transport networks. However, the latter is definitively falling short of the growing connectivity needs between the countries of the region. According to the diagnosis made by a participant, infrastructure connectivity challenges in the region include a lack of multimodal connectivity, overreliance on road transport, and a fragmented port system. In fact, the high logistics costs and delays limit participation in global value chains and trade integration, which is an issue that was assessed by the participants of the first session of the thematic seminar.

Addressing the issue of the region's role in the globalisation process is particularly relevant in the current context, especially when considering that the Mediterranean Sea accounted for nearly 30% of the world's container traffic in

2020. As noted by the speakers, the pandemic has been altering the geography of global economic relations with the emergence of what was described as a trend towards regionalisation of globalisation. According to a speaker, the key questions, therefore, remain whether this regionalisation of globalisation could become permanent and how the Western Mediterranean subregion could benefit from it by attracting new forms of near-shoring and reshoring.

In response, it was remarked that the lack of development regarding infrastructure connectivity among countries of the Arab Maghreb Union (AMU), alongside the lack of proper human capital formation, are constraints to unleashing the potential that the Maghreb countries can offer in that sense. As previously stated, maritime transport is the main channel for trade across the region and is consequently where lies the potential to enhance the role of the Western Mediterranean in the process of regionalisation of globalisation. For the participants, there was no doubt that many ports of the southern rim of the Mediterranean could improve their trans-shipment function to become more competitive, connected with global markets, and play the role of national or regional gateways. Some ports, such as the Tangier-Med port complex, have succeeded in becoming important hubs in the Mediterranean thanks to significant investments in logistics and infrastructure services (in connection with the high-speed rail Al-Boraq), with capitals from external actors such as China and the United Arab Emirates.

A speaker pointed out that, in order to create important Europe-Africa commercial corridors in the Mediterranean, large-scale infrastructure investments in port-rail-road connectivity are needed but these have to be anchored in manufacturing value chains, such as the Tangier-Med example shows. This commercial corridor running from Europe (Germany, France, Spain) to Dakar, Senegal, through Morocco, is indeed based on Africa's leading automotive manufacturing power based in Tangier. Another important example mentioned is the central Mediterranean corridor, centred around the ports of Izmir (Turkey), Taranto (Italy), Marsaxlokk (Malta), and Bizerte (Tunisia), and leading by road to Algiers and further south to Sub-Saharan Africa. The development of this

commercial corridor owes to recent Turkish investments with the aim to link Turkey with Algeria and further south with Sub-Saharan African countries such as Senegal and Angola, where Ankara is significantly involved in iron steel and textile production. As underlined by a participant, this commercial corridor blurs the usual distinction between Eastern and Western Mediterranean sub-Basins which are growingly interlinked in a space where Mediterranean and non-Mediterranean actors (China, Gulf States) are competing.

These non-Mediterranean actors, especially China, have been shaping the Mediterranean transport network, through their investments in infrastructures, especially ports. For instance, a participant demonstrated the regional repercussions of China's Belt and Road initiative (BRI) that aims at expanding Beijing's trade network, on the Mediterranean port systems with investments in infrastructures leading to the attraction of economic flows, better connectivity with major shipping routes and the hinterland. However, as remarked by a speaker, this strategy aims at creating an infrastructural and commercial ecosystem supporting trade and logistics for the benefit of China and does not specifically support Mediterranean intra-regional trade and connectivity.

In this context calling into question the dependence of Mediterranean countries on distant overseas suppliers, favouring regional value chains could be a way out of the crisis that mutually strengthens regional integration and the transport and logistics sector, which are deeply intertwined. Examining the potential of Maghreb countries to become candidates for near-shoring, participants highlighted that, indeed, they could be attractive thanks to their specialisation, their geographical proximity to Europe, and their comparative advantages. However, they also acknowledged that these factors might not be enough to attract investors and increase intra-regional trade. Speakers pointed out that the poor business climate and the lack of South-South integration, currently worsen by political conflicts, are likely to hamper a significant movement of near-shoring from European companies. Consequently, only a regional and multistakeholder coordinated strategy

aiming at reforming the business environment, facilitating trade and mobility, and upgrading the transport and logistics infrastructures and their multimodality (including their digitalisation) could create the conditions needed to build important regional value chains.

In this context of fierce competition, it was remarked that the European Union has an important role to play in enhancing regional value chains and Europe-Africa connectivity. Its Green Deal provides the occasion to develop win-win and sustainable energy value chains (notably green hydrogen) with its Maghreb partners. Upgrading transport systems would support and strengthen such a trade connection.

### **The path towards sustainability: Accelerating the decarbonisation of the Western Mediterranean transport and logistics sector**

Well before the COVID-19 pandemic, sustainability had been one of the most pressing challenges for the transport sector. The Sustainable Development Goals (SDGs) and the Paris Climate Agreement put the sustainability paradigm at the centre of the development policies worldwide. A cornerstone of this paradigm, climate action has become a priority to respond to the threats posed by the rise of temperatures caused by greenhouse gas emissions (GHG). The transport and logistics sector is a major source of GHG emissions globally, accounting for 14% of GHG emissions worldwide in 2018 (40% of them generated by freight) and almost a quarter of Europe's emissions. It is therefore impossible to envisage a green transition without making the decarbonisation of the transport and logistics sector a pillar of sustainability policies. However, the challenge is enormous as GHG emissions in the transport sector are projected to continue increasing in the upcoming years, thus requiring strong actions to reverse this trend.

As highlighted by a speaker, the pandemic has challenged work and travel habits, restricting mobility and impacting certain modes of transport (air transport, collective public transport). By leading to a substantial but momentaneous drop in transport emissions, the pandemic has contributed to



imposing the demand for sustainability at the centre of the post-COVID-19 recovery policies. This has given rise to commitments to promote less polluting transport such as rail, to support multimodality as a way to optimize more sustainable transport routes and promote sustainable urban transport.

Participants agreed that decarbonisation policies are likely to give a greater role to rail transport, as a mode of transport with low CO<sub>2</sub> emissions. The phenomenon of flight shame (or flygskam) that has gained traction in recent years has also favoured rail transport among users who are most aware of the climate issue. In addition, a renewed interest from public authorities in this mode of transport was noticed, giving it a prominent position in the post-COVID-19 recovery plans in Europe. New investments to develop short and long lines, as well as the return of night trains, were committed with the aim to lead to a shift from air and road to rail as the backbone of mobility.

As remarked by a speaker, rail transport currently finds itself in a ten-year window of opportunity allowing it to increase its attractiveness and market share, pending the implementation of sustainable solutions in the road and air sectors by 10-15 years based on alternative and clean energies, in particular hydrogen. To do this, the sector must adapt its prices and services to the new uses of rail transport, both for passengers and for freight, increase the area of rail relevance by investing in regional and long-distance lines (in particular corridors), develop intermodality (both physical and digital) and network nodes, and finally drive innovation towards the improvement of the environmental performance of infrastructures and trains through the abandonment of diesel traction for electrification and hydrogen, the promotion of circular economy and the control of externalities. From the point of view of public authorities, it was claimed that the priorities will be to support investments in infrastructure and new technologies, promote the rail mode through regulations and develop sectoral cooperation. Finally, there was a clear consensus on the necessity of regaining the confidence of travellers who have preferred individual cars for health reasons, notably by improving the comfort, services, safety and finally promoting the environmental image of rail transport.

In the framework of its Green Deal, the EU has set the very ambitious target of doubling high-speed rail traffic by 2030. It was remarked that, to succeed in this endeavour, large-scale investments in infrastructure, its better use, and increased competition between railway companies will be crucial. Participants felt that this effort deserves to be replicated in North African countries - some of which have already taken steps in that regard (Morocco with the Tanger-Kenitra high-speed train, the first of its kind in Africa) – notably with the support of the African Union.

Urban mobility represents another area where progress is needed to reduce GHG emissions. According to an expert, the main goal in restructuring urban mobility to achieve sustainability is to free cities from their dependence on cars. Most cities were built for cars, reserving massive amounts of spaces for vehicles in their central areas. Many of them are now trying to reverse this process. Regardless of the energy sources used, it was argued that the automobile is an extremely inefficient and energy-intensive mode of transport. Now more than ever, there is a need for restructuring mobility to save energy by focusing more on active mobility, cycling, and public transport. In that sense, it was remarked that many cities took the opportunity to redistribute public space (tactical urbanism) from the automobile to other uses during the pandemic. Therefore, what is needed is not only the promotion of less polluting modes of transport but a shift in the model of urban planning that contributes to reducing the need for cars by bringing most of the services needed by citizens within walking or cycling distance, alongside a multiplication of public transport hubs and services.

The challenge is similar in the field of urban logistics, which is currently almost fully based on cars and trucks. Solutions are emerging through micro-logistic centres, together with small electric vehicles and cargo bikes that are helping to decarbonise the “last mile”, although a right balance will have to be found to ensure efficiency and competitive delivery costs.

Other measures to reduce the carbon footprint of the transport and logistics sector in the Western Mediterranean were discussed by participants, including the adoption and enhancement of intermodal solutions including low-carbon

modes of transport, notably between motorways of the sea and railways. However, intermodality remains difficult to implement in countries where political commitment is lacking, conflicts of interests exist and the weight of the informal sector prevent the objectives to be reached, as a speaker pointed out by referring to the case of Morocco.

Another lever for action to raise awareness on the decarbonisation imperative is education. It was indeed considered necessary to train supply chain professionals in sustainability issues, from producers to carriers, in particular, to enable them to identify and calculate the greenhouse gas emissions of their activities. Sustainability must be thought from a supply chain planning perspective.

Technological innovations, in particular in the digital realm, offer hope for the decarbonisation of the transport sector. Whether in the passenger transport sector or in the freight sector, innovative solutions based on digital tools, artificial intelligence, and big data are emerging to transform mobility (car-pooling and sharing, bicycle applications), optimize the journeys, save energy, and making logistics more efficient. However, it was assumed that the role of technology is not unlimited. On the one hand, digitalisation can be an opportunity to increase the efficiency of many processes and logistical chains, but it was warned that it is also a double-edged sword. Services such as Uber could increase the number of vehicles wandering in the cities worsening traffic congestion. It was also argued that creating a zero-emission vehicle is a pipe dream if considering the energy consumption generated by the intermediate products used for the assembling process or its recycling. Many studies demonstrate that electric cars are actually emitting from 50 to 90% less GHG than fossil fuel vehicles but cannot be considered as contributing to zero-emission mobility.

Is the legislation adequate to incentivize decarbonisation in the transport sector of the Western Mediterranean? Participants argued that most countries in the Western Mediterranean are well equipped with climate laws, although they tend to remain only declarative, in the sense that they do not provide concrete plans for their implementation. On the European side, the EU's July 2021 climate

package under the European Green Deal proposes far-reaching measures that go in the right direction, but their implementation will take several years. In Morocco, environmental laws well define pollution and negative externalities but institutions do not have the capacity to implement them, according to a participant who stressed that the status quo will be maintained as long as no change in attitude or collective awareness will take place.

### **The digital transition in the transport and logistics sector: spurring innovation, growth, and competitiveness in the Western Mediterranean**

It is now common knowledge that the crisis triggered by the COVID-19 pandemic has acted as a change catalyst and has favoured innovation, especially as regards digitalisation processes. Indeed, businesses and economic operators have been forced to resort to digital processes to ensure the continuity of their activities and safeguard their competitiveness in the short and long term. In the transport and logistics sector, the pandemic has accelerated the digitalisation trend, forcing operators to rethink their traditional commercial and operational processes by deploying innovative technologies to overcome the difficulties posed by the pandemic. Moreover, the digital transition brings innovative tools with the potential to make transport and logistics more sustainable and efficient.

As highlighted by panellists representing different sectors of the transport and logistics industry (air, maritime, public transport, logistics platforms), there are numerous advantages in better exploiting available data and developing artificial intelligence. Through digital data flows, it is indeed possible to automate supply chains, standardise and dematerialise procedures for reduced administrative costs of compliance and improved customer experience, promote multimodality and interoperability between different systems optimising the choice of transport services, and finally adjust demand and supply in real-time for more efficient use of resources.

From the point of view of the logistics sector, the digital revolution allows to optimise the choice of transport services thanks to online platforms listing available services of all modes of transport. Accessing real-time information on delays and incidents,

tracking and tracing goods thanks to digital technologies and applications are also enabling operators to better manage transport and reduce costs.

A speaker representing the public transport sector stressed that data is an important asset in making public transport more efficient. According to him, digitalisation is a way to improve operational efficiency at different levels, notably through the automation of vehicles (shuttles and metros), vending machines, or demand forecasting. Maintenance is another essential aspect affected by digitalisation: it enables timing interventions and better efficiency of maintenance by moving from preventive to predictive approaches that optimise costs and render means of transport more reliable.

It was acknowledged that data availability has also led to improving the customer-oriented approach of public transport, meeting higher expectations from users, and transforming the paradigm of public transport: mobility is now perceived as a service combining all public, shared, and on-demand modes of transport.

As regards the aviation sector, the progress made in the development of artificial intelligence were emphasised, thus offering vast opportunities to automatize tasks, while increasing efficiency and security. In terms of passenger experience, the use of digital identity has been accelerated, as well as a smarter integration of the aviation industry with other public transport systems.

Ports were also presented as excellent laboratories for the deployment of new disruptive technologies and the application of automation, to the point that a number of “smart ports” have flourished across the Mediterranean. Artificial intelligence, blockchain, digital twin automation, smart containers, and robotisation are tools allowing port ecosystems to thrive in the global race for increased productivity and competitiveness, at a time when the inflationary context places a rising burden on the sector.

Finally, the solutions offered by digitalisation to intrusive and time-consuming administrative procedures for foreign trade were highlighted by a speaker. These

procedures, complicated by market opacity issues and regulatory changes (non-tariff barriers, complex procedures, and payments) were estimated to cost between 2 and 15% of the goods exchanged in Morocco, according to him. In face of these issues, a digital one-stop-shop was created in Morocco to satisfy all the formalities required for import/export operations in ports through a single-entry point. This initiative has been supported by PORTNET, a strategic alliance of port communities and international trade in Morocco, which aims at creating an ecosystem for the improvement of trade, port, and logistics competitiveness, as well as the generalisation of innovation in digital administrative services.

If digitalisation offers a great array of solutions to improve the competitiveness and sustainability of the transport and logistics sector, it was acknowledged that its application remains particularly challenging in the Mediterranean region, especially when considering its costs, the capacity and skills needed, the inadequate governance and legislation frameworks, as well as the cybersecurity threats.

As pointed out by participants, North African countries are still lagging behind with respect to the introduction and use of digital technology. As a matter of fact, it was claimed that North African SMEs providing transport and logistics services are showing a low degree of maturity as regards their data analysis capacity (only 10% of them consider themselves as advanced in this respect according to the figures mentioned by a speaker). A lack of harmonisation between the level of digitalisation of the various stakeholders of the supply chains was also deplored, making the process incomplete and difficultly inter-operable.

This situation highlights the importance of tackling the skills challenge brought about by the digital transformation. In fact, digitalisation is creating the need to further professionalise human resources working in logistics business processes with a set of specific skills and knowledge adapted to digital environments. As a consequence, new job profiles requiring rapid skill improvement will emerge while others will become obsolete. In that context, public authorities, the sector's trade unions and employers' associations are urged to design and implement training

schemes to develop flexible and multidisciplinary digital skills. Participants concluded that logistics and transport are sectors that will generate employment in the future under the condition that they are well prepared for digital transformation.

If digitalisation is often perceived as a disruptive process, it seemed particularly important to panellists to question whether its governance in the transport and logistics sector, including institutions and legislative frameworks, is ready enough to regulate this transformation. As illustrated by a participant, the diversity of services arising from digitalisation makes it necessary to revisit the current governance model of public transport. Indeed, new players operating shared and on-demand mobility services have emerged to partner or compete with traditional public transport operators. In that context, it was remarked that contractual relationships between public operators and authorities were not flexible enough to cope with events such as the pandemic. In any case, participants agreed that public transport must remain accessible to all users under any condition.

There is no doubt that cybersecurity is acquiring enormous relevance as the operational environment of transportation becomes more digitalised. With operational and maintenance processes undergoing a digital transformation, taking into account cyber risks is crucial to ensure the continuity of fundamental services (e.g. signalling) and the protection of critical data. However, participants considered that there was still a lot of work to be done in the Mediterranean transport and logistics sector in that regard. They feared that, given the high levels of investment required, cybersecurity might be overlooked. Significant work to raise awareness of the transport ecosystem remains to be carried out in that respect.

Digitalisation is a challenge, but it is coming with a lot of opportunities. As mentioned, it is increasing the efficiency and sustainability of transport, improving the quality of the service, lowering the cost of operations, opening up new revenue streams, improving the customer experience with new services, as well as competitiveness through automation.

Accelerating the digital transformation of the sector should therefore be considered a priority by all stakeholders. For that, participants insisted on the need to implement open innovation strategies to increase the speed and flexibility of innovation in the sector. They also advocated actions such as the creation of multi-stakeholder working groups and networks to share knowledge and develop capacity-building programmes, following the example of the Medports Association's "Smartport" committee.

### **Enhancing efforts towards the implementation of the GTMO 5+5 Multimodal Network**

As mentioned throughout the seminar, the Mediterranean transport and logistics sector is going through very complex scenarios of regionalisation of globalisation, decarbonisation and digitalisation. In the opinion of the participants, these trends are likely to provide arguments in favour of the Western Mediterranean as a transcontinental transport and logistics hub between Europe and Africa. Transport and logistics infrastructures are crucial in this context and, according to a speaker, should be understood as responses to these developments.

Against this background, the regional cooperation in the context of the 5+5 Dialogue provides a concrete framework to develop transport and logistics infrastructures in the Western Mediterranean. The Group of Transport Ministers of the Forum (GTMO 5+5), supported by a committee of experts and the Centre for Transportation Studies for the Western Mediterranean (CETMO) as technical secretariat, notably aims at setting up an integrated network of transport infrastructures that facilitates the movements of people and goods, fosters trade and leads to regional integration in the Western Mediterranean. Building upon this mandate, the GTMO 5+5 multimodal network was approved at the 8th Transport Ministers' Conference of the 5+5 Dialogue in Lisbon in 2014.

The definition of the GTMO 5+5 multimodal network is based on the Trans-European Transport Network (TEN-T) in the five European countries of the region (especially the Western part of the Mediterranean corridor), while being superimposed on the trans-Maghreb network in the southern shore of the



Mediterranean Sea. The network provides a common base for planning and analysing between both shores of the Western Mediterranean and is intended to be the backbone of transport exchanges in the subregion. It has a threefold orientation: a national orientation to provide access to main nodes of populations and economic activity within the country; a trans-Mediterranean international orientation that facilitates North-South flows; a global orientation directed at transcontinental flows mainly between Europe and Africa (in connection with the Trans-Saharan corridor), as well as West-East flows.

With regards to the facilitation of transcontinental flows between Europe and Africa, the connection between the GTMO 5+5 multimodal network the Trans-Saharan Road was considered particularly relevant. It could cut significant transport times in trade for Niger and northern Mali with access to Mediterranean ports through road, according to a study by the UNCTAD. The trans-Saharan road, supported by the UN Economic Commission for Africa and the African Development Bank, is actually linking the Mediterranean ports to Lagos over 4500 km (250 km remaining to be completed).

This is an example of the synergies offered by the GTMO 5+5 multimodal network and other cooperation frameworks, including the Union for the Mediterranean (regional dialogue on transport connectivity), the trans-Maghreb network promoted by the Arab Maghreb Union, as well as the initiatives of the Arab League and the African Union. However, a lack of coordination between these different cooperation frameworks and initiatives was deployed.

However, the full development of the potential of the GTMO 5+5 network is limited by a number of challenges that hamper North-South and South-South connectivity. The first of these obstacles is related to the transport infrastructures in Maghreb countries, especially missing links and sections of the railway and highway networks, in particular in Libya and Mauritania, the lack of modernisation, interoperability and intermodality (notably with maritime transport). These shortfalls were in part explained by the lack of coordination between Maghreb countries in planning and financing strategies of infrastructure projects, according to the speakers.

Moreover, participants stressed that the lack of trade integration between the Arab Maghreb Union (AMU) countries was not providing incentives to upgrade transport and logistics infrastructures. As a matter of fact, the level of exchanges between Morocco, Algeria and Tunisia amounts to only 3% of the total of exchanges of these countries in 2017, merely 27% of the potential in exchanges between them, according to a panellist. This low level of exchanges was attributable mainly to constraints related to administrative procedures and legal aspects, tariff and non-tariff barriers, as well as political tensions between neighbours, which all have a negative impact on the feasibility and rentability of infrastructure projects. It is, therefore, crucial to put the simplification of administrative and customs procedures on the regional cooperation agenda.

In view of the efforts needed to advance towards the completion of the GTMO 5+5 multimodal network, participants agreed that a renewed common vision to strengthen cooperation in transport infrastructure was very much needed. This should be based on a shared will and a commitment to relaunch the dynamics of transport cooperation in the region of the 5+5 Dialogue in general and of the AMU in particular, with the aim to give an impetus to regional trade and advancing in the implementation of the 5+5 multimodal network. According to speakers, this strategy should put emphasis first and foremost on ensuring the development of maritime transport as the basis for exchanges between the ten countries of the region. In that sense, they advocated the creation of new North-South and South-South maritime lines designed as motorways of the sea (only 7 of the 17 motorways of the sea in the Mediterranean concern North-South lines). In addition, efforts to improve connectivity and intermodality should focus on the development of modern railway infrastructures connected to ports, notably as part of the objective to decarbonise transport in the region. In order to fund these priorities, it was recommended to intensify fundraising efforts, including the use of public-private partnerships (PPP).

## Conclusions

The COVID-19 crisis has revealed the strengths and vulnerabilities of the transport and logistics sector in the Western Mediterranean. The contribution of

the sector to ensure the distribution of freight goods has been essential throughout the crisis. However, the need for skilled human resources, the adaptation to digital environments, better coordination among actors, and the harmonization of policies must be met to ensure the resilience of the sector. These requirements respond to the emergence of a global context of accelerated changes in global trends affecting trade and value chains, passenger transport, tourism, urban territories, and people's lives.

Infrastructures for transport remain an enabler of economic integration and development in the Western Mediterranean. As outlined by participants, the lack of infrastructure connectivity limits the participation of actors in global and regional value chains. As a consequence, the process towards the regionalisation of globalisation finds itself in an early stage in the Western Mediterranean. Significant investments in transport and logistics infrastructures are required to lay the ground for greater connectivity and integration.

At the same time, the concepts of sustainability and resilience have become new compasses for the future development of the transport and logistics sector. Many efforts remain to be done to achieve objectives of decarbonisation but it is clear that railway will play a central role in the upcoming years. It therefore needs to be placed at the heart of policies to enhance sustainable transport systems, while low-carbon alternatives in the air and road transport will take time to emerge. Technology, especially in the context of increased digitalisation, will play an important role in that respect.

Although digitalisation comes with a lot of opportunities for the transport and logistics sector, the seminar recalled that it entails a number of issues that should be addressed by all stakeholders: the harmonization of regulation, the interoperability of systems, the need to upgrade workers' skills, the importance of sharing data, the protection of data and cybersecurity, etc.

Many challenges are to be met in the Western Mediterranean transport and logistics sector. It is up to the regional cooperation frameworks such as the 5+5

Dialogue to accompany the sector through this era of transformations to seize the opportunities to contribute to the region's economic development and integration. This seminar intended to support this process by providing some useful inputs through a foresight exercise to guide the cooperation and public policies that will shape the future of the sector in the subregion.

