

Investing in the Mediterranean: Strategies for Infrastructure Development

Valeria Lauria

Marie Curie fellow
Robert Schuman Centre
European University Institute

The centrality of infrastructure investment in the Mediterranean's broader economic transformation cannot be overstated. Beyond the immediate benefits of improved connectivity and utility provision, infrastructure development is a catalyst for industrialization, enhancing the region's participation in global value chains and fostering regional economic integration. Infrastructure – encompassing everything from transport and energy to water and digital services – is critical in expanding trade, boosting firms' overall productivity and increasing private investments. Beyond these immediate benefits, an efficient infrastructure system can significantly impact local development through effects on employment, and technological and know-how transfer, as well as strengthen climate-resilient capacity (Brooks and Hummels, 2009; Lin and Wang, 2017; Wolf and Cheng, 2018). This potential, however, remains largely untapped, constrained by a variety of systemic challenges. Among these, the infrastructural deficit stands out as both a symptom and a cause of the broader issues facing the Mediterranean region.

This is particularly true in the Middle East and North Africa (MENA), brimming with growth potential due to its strategic location and critical role in international commerce and global energy resources. According to a recent assessment by the World Bank (2020a), the MENA region needs to significantly in-

crease its infrastructure investment to address its diverse economic needs. The requirement is estimated to be over 7% of GDP, translating to more than €106 billion annually (OECD, 2021).¹ This investment is necessary not only to create new infrastructure but also to ensure the sustainability of existing facilities. Historically, MENA's infrastructure spending has averaged only around 3% of GDP, mainly funded through public sector resources and supplemented by significant multilateral and bilateral debt financing (World Bank 2020a). However, fiscal pressures and debt burdens from excessive borrowing have further constrained government capacities to fund these investments. Financing is just one of many challenges the region faces. Poor regional integration, inadequate connectivity, a weak and fragmented regulatory framework, insufficient inter and intra-regional cooperation and complex geopolitical and security issues, add to the complexity of the region and pose key challenges to enhance investments in the sector and foster economic cooperation between the two shores of the Mediterranean.

The Infrastructure Sector in the Mena Region: Key Challenges

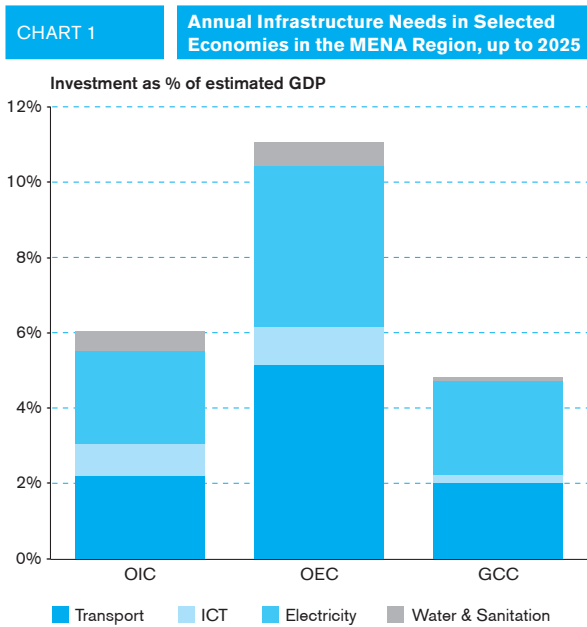
MENA is the least integrated region in the world. The region is highly diverse in economic and political terms, where rapidly growing and stable realities such as Morocco coexist with fragile and failed states like Yemen and Libya. Despite strong global trade ties, primarily driven by oil and gas exports, the physical connectivity within the Southern Neigh-

¹ Transport and electricity account for 43% of the total infrastructure needs in the MENA region, followed by ICT at 9% and water and sanitation at 5% (OECD 2021).

bourhood countries remains underdeveloped. This is reflected in the countries' low rankings in the Logistics Performance Index and minimal intra-regional trade, where only Oman, Jordan and Lebanon have significant trade with other MENA countries (Rizzi and Varvelli, 2023). Exporting across borders in the MENA region is notably costly and time-consuming, with an average cost of \$442 and 53 hours required to comply with border regulations. These figures are approximately three times more expensive and four times longer than the averages in high-income economies (World Bank, 2020b). Poor land and sea transportation networks, along with a lack of digital infrastructure, restrict global market access and hinder the efficient movement of goods and services, both within and across borders. An estimated 5.5% of GDP in MENA is lost annually due to poor transport and logistics. Notably, only 5% of cargo traffic in the Mediterranean region is between MENA countries, compared to 70% between European ports and 15% between Europe and North Africa (IMF, 2019).

orization. This fragmentation is further exacerbated by governance challenges across the region, characterized by ineffective public administrations, sub-standard policies, along with weak integrity and rule of law. Although there have been efforts to improve services through decentralization reforms in countries like Jordan, Tunisia and Morocco, public dissatisfaction continues, and corruption remains widespread (OECD, 2022). Entry barriers represent an additional limitation. While several MENA economies welcome foreign investments, the degree of regulatory constraints exceeds the OECD average, particularly in the sectors of infrastructure services and construction. For instance, Algeria exhibits the highest restrictions across almost all sectors except surface transport. In Jordan, the transport sector remains heavily regulated, whereas Morocco restricts foreign ownership in several sectors, including maritime and air transport. In Egypt, foreign investments in the maritime sector are only permitted through joint ventures, with foreign equity capped at 49% (Horj, 2023). These governance and regulatory issues collectively hinder the effective collaboration and integration necessary for cohesive infrastructure development, limiting the participation of the private sector in infrastructure financing and building.

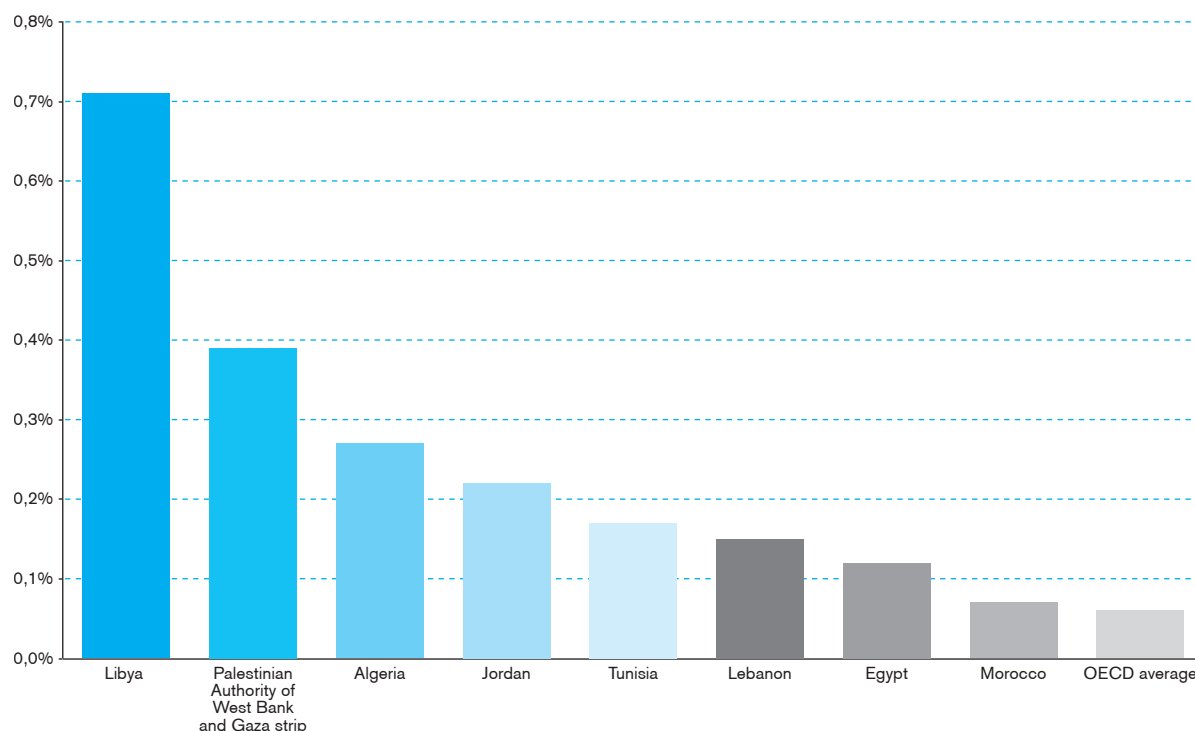
In this scenario, geopolitical tensions and security issues have further impacted the region's economic landscape. The disruptions in global production networks from the Covid-19 pandemic and the war in Ukraine have reignited discussions around the future of globalization and the advantages and disadvantages of reshoring, nearshoring and friendshoring strategies. Concurrently, the conflict in the Middle East has drastically reduced GDP and heightened economic uncertainty, complicating long-term investment in infrastructure. Significant disruptions in major shipping routes like the Red Sea have escalated shipping costs and required the rerouting of trade flows, adding substantial economic burdens (World Bank, 2024). Such a context underscores the urgency of reevaluating supply chain strategies and enhancing risk management frameworks to ensure they are robust and adaptable, with a focus on bolstering infrastructure resilience. Enhanced inter and intra-regional collaboration on key infrastructure challenges, especially with partners like the European Union, is essential to es-



Note: Oil exporting economies (OEC) include Algeria, Iran, Islamic Rep., Iraq, Libya, Syrian Arab Republic, Yemen, Rep.; Oil importing economies (OIC) include Egypt, Jordan, Lebanon, Morocco, Tunisia. Data are estimated based on a general equilibrium model.
Source: OECD 2021 based on World Bank estimations (World Bank 2020a).

Infrastructure cooperation in the MENA region is also significantly compromised by disparities in national standards, which often leads to siloed approaches in infrastructure policy, planning and pri-

CHART 2 Regulatory Restriction to Foreign Direct Investments, 2020



Note: OECD average, Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Palestinian Authority, Tunisia. Source: OECD FDI restrictiveness (Accessed on 22 May 2024).

establish a conducive environment that promotes strong infrastructure development and encourages economic integration.

The crucial point will then be to reverse what has been called an “arc of crisis”² into an “arc of opportunity.”

From an “Arc of Crisis” to an “Arc of Opportunity”: Five Priorities

Navigating the complex landscape of infrastructure challenges in the MENA region requires a multifaceted approach. The persistent “arc of crisis” has highlighted the critical need for innovative strategies to revitalize infrastructure, ensuring it serves as a backbone for economic stability and growth. Transitioning to an “arc of opportunity” demands a collaborative effort to bridge the existing infrastructure gap. This transition involves not only addressing the tangible deficits in physical infrastructure but also adopting a holistic approach that integrates

private sector participation and advanced governance practices, fostering a competitive environment and encouraging cooperative regional approaches to attract more investment and streamline cross-border projects.

To effectively address the region’s infrastructure challenges, a shift towards leveraging both public and private investments is essential. This calls for significant reforms in governance systems. For a number of countries in the region, *improving the governance system* can create the basis for increasing private sector participation. For this matter, it is essential to improve the regulatory environment, providing potential investors with adequate public-private partnership (PPP) policies and regulations. Ensuring clarity across related pieces of legislation, enhancing transparency in the procurement process and strengthening and streamlining institutions responsible for enforcing investment regulations are crucial steps to fostering a business-friendly environment. To attract more investment, while modernizing

² The “arc of crisis” concept was formulated in 1978 by Jimmy Carter’s National Security Advisor, Zbigniew Brzezinski.

their respective legal frameworks, governments will also ultimately need to promote more competition and lift entry barriers.

The emphasis on private sector participation extends beyond mere financial contributions and infrastructure development; it also encompasses the *enhancement of soft skills within the community*. Effective infrastructure projects are those executed in partnership with local businesses. This can not only accelerate local development but also facilitate skill development through exposure to new technologies and work practices. Partnerships, joint ventures and subcontracting with local companies can significantly boost local industries and economic clusters over time, including brokerage services and maintenance sectors, further enhancing the region's competitiveness. It is also important to consider the role of state-owned enterprises (SOEs) within the sector and evaluate their current operations. SOEs are the main implementer of infrastructure projects in the MENA region. Privatization programmes or initiatives that open SOEs' capital to private investment, leveraging private sector strengths in funding, human resources, innovation and knowledge can enhance overall governance and operational efficiencies. Such measures should be complemented with human capital development, through national and regional programmes that align with the required skill of the region and facilitate workforce mobility across countries. The ultimate economic impact of these projects largely hinges on the negotiation terms set between the government and private sector partners. These negotiations determine both the financial and socioeconomic returns of the investments, which governments can then maximize by ensuring an equitable benefit distribution.

Deeper regional integration in the MENA region is contingent on *improving logistics, energy and digital connectivity*. The region should prioritize developing sub-regional infrastructure by creating green and efficient multi-modal economic corridors. This involves enhancing connectivity with inland areas through improved road and rail networks and developing port capacity and efficiency to facilitate smoother trade

and transport routes. Improving digital connectivity is equally important, requiring substantial investment in reliable and affordable internet and broadband infrastructure, both of which are significantly underdeveloped. This should be complemented by implementing advanced technologies such as smart logistics, block chain and open and federated digital platforms. Developing comprehensive logistics hubs that combine warehousing, transportation and digital services can streamline operations and boost trade. Blockchain technologies can strengthen cross-border data management and improve data quality, building trust in PPPs and ensuring the fair allocation of risk among stakeholders. Federated digital platforms that combine physical and technological layers of infrastructure can spur innovation through ecosystem participation and improve value chain integration. Energy integration is also extremely important. The region hosts one of the world's largest oil and natural gas reserves and an abundance of wind and solar resources. Several MENA economies are now building regional interconnection projects and the infrastructure that supports electricity trade across the region's countries.³ These initiatives offer the potential to replace localized power generation, lower costs and create a single market for both production and consumption, although their adoption is still limited.

The MENA region needs to significantly increase its infrastructure investment to address its diverse economic needs. Financing is just one of many challenges the region faces

Achieving these objectives requires a concerted effort, rooted in *cooperative regional strategies and dialogue on infrastructure investment across the region*. Such strategies are essential for synchronizing

³ This encompasses several key projects, including the Maghreb regional interconnection project that links Algeria, Morocco and Tunisia, as well as the Eight-Country and Territories Interconnection project, which facilitates the trade of electricity between Egypt, Iraq, Jordan, Lebanon, Syria, Turkey and the Palestinian Authority. Another important initiative is the Gulf Cooperation Council (GCC) Interconnection Grid, which connects the electricity networks of six Gulf states, enabling them to efficiently trade surplus electricity.

regulatory frameworks and investment approaches across borders, in order to enhance the attractiveness of the region to new fundings and private investments. The alignment across MENA countries ensures interoperability and safety across infrastructure networks, facilitating easier management and maintenance while also reducing costs. Enhancing intraregional cooperation is also key for shared projects between MENA and Europe, which could amplify synergies and promote sustainable growth across the entire Euro-Mediterranean region. The recently launched Global Gateway could serve as a catalyst for this endeavour.

The Global Gateway: A Catalyst for Mediterranean Development?

Aimed at mobilizing €300 billion⁴ between 2021 and 2027, the Global Gateway revolves around the concept of connectivity and focuses on creating sustainable energy, transport, digital and other critical infrastructures to boost the “competitiveness and security of global supply chains” (EC/EEAS, 2021). The initiative is part of the EU’s broader strategy to foster economic growth and stability in emerging economies, while promoting the green transition globally and counterbalancing China’s global reach. Projects are implemented through *Team Europe*, which combines resources from the EU budget, the European Investment Bank, the European Bank for Reconstruction and Development (EBRD), Member States, national development finance institutions and the private sector. Three key sectors – energy, digital infrastructure and critical and non-critical raw materials – could be particularly transformative for the Euro-Mediterranean partnership.

In today’s complex geopolitical landscape, marked by increasing geo-economic competition, the EU is striv-

ing to achieve strategic autonomy⁵ and reduce its dependence on extended supply chains, especially in key sectors like energy. Investing in clean energy facilities and establishing new energy grids between the two shores could revolutionize the existing market, which predominantly depends on fossil fuels sourced from North Africa, and pave the way for an integrated Mediterranean green energy system.⁶ Green hydrogen is another avenue that has the potential to enhance energy relations within the Mediterranean region. Considering the EU’s goal to import half of its green hydrogen needs, targeting 10 million megatons annually by 2030, Southern Neighbourhood countries could become reliable, nearby suppliers (Rizzi and Varvelli, 2023).⁷ Furthermore, promoting green hydrogen could catalyse the development of local and regional green hydrogen industries, as well as foster the creation of new industrial products such as green fertilizers, cement and steel, which are significant outputs of North African economies.

Enhanced inter and intra-regional collaboration on key infrastructure challenges, especially with partners like the European Union, is essential to establish a conducive environment that promotes strong infrastructure development and encourages economic integration

Europe’s digital sovereignty and competitiveness at the global level hinge on a strong digital sector and widespread digitalization of the economy. A cross-regional digital enhancement has the poten-

⁴ The EFSD+ aims to provide as much as €135 billion for investments, which includes a €40 billion External Action Guarantee dedicated to Global Gateway projects, and up to €18 billion in grants from the NDICI. European development financial institutions are anticipated to contribute another €145 billion in investments.

⁵ The European Commission defines “open strategic autonomy” as “the EU’s ability to make its own choices and shape the world around it through leadership and engagement, reflecting its strategic interests and values.” (European Commission, 2021)

⁶ Currently, the EU has limited electricity interconnections with the MENA region, with the only existing link being a 1,400 MW capacity connection between Spain and Morocco.

⁷ North African countries, including Morocco, Algeria and Egypt, are crucial to the EU’s clean energy strategy. The EU-Morocco Green Partnership, launched in October 2022, along with Algeria and Egypt’s hydrogen production potential, could substantially meet the EU’s clean energy demands.

tial to open new avenues for European investments particularly through supply chain digitalization, which can significantly boost trade performance between the two shores. Projects like enhancing broadband connectivity and digital skills could also have specific potential for sectoral cooperation (for instance in manufacturing chips, data storage or cybersecurity). More broadly, by supporting the expansion of the digital economy, the EU can contribute to job creation and private sector growth in the southern Mediterranean, while potentially increasing the region's per-capita GDP by 46% over 30 years, adding a long-term benefit of \$1.6 trillion, especially in MENA's lower-income countries (Cusolito et al., 2022).

EU's Global Gateway strategy will ultimately depend on its ability to develop long-term, sustainable partnerships with the countries of the Southern Neighbourhood

The EU's strategy for green and digital transformations relies heavily on the deployment of green and digital technologies, which are highly material-intensive, leading to a significant increase in the demand for raw materials. Currently, the EU depends mostly on imports to meet these needs, particularly from China, which dominates the market for several key raw materials, including heavy rare earth elements (100%), magnesium (91%), and silicon metal (79%) (European Commission, 2023). To stay competitive and support these critical transitions, the EU needs to secure a stable and reliable supply of these essential resources. In this scenario, strategic corridors can be instrumental in facilitating better access to both existing and future mining sites through improved transport and energy infrastructure. This, in turn, can help integrate mineral industries in the context of a stronger and more strategic territorial organization that puts the emphasis on economic and social development at a regional scale (Baranzelli et al., 2022).

Initial steps have been taken in this direction; the Global Gateway has mobilized €24 billion in invest-

ments within the southern Mediterranean region so far. Flagship projects include the Medusa project, involving the development of a 7,100-km state-of-the-art submarine optical fibre cable designed to connect Northern African countries with the EU. In the energy domain, the ELMED interconnection will be the first undersea high-voltage electricity cable between Italy and Tunisia. Additionally, the GREGY project, an electrical interconnection between mainland Greece and Egypt, will transport green energy from Egypt to Greece and the rest of Europe (European Commission, 2024). In the mineral sector, at least five EU-Africa Strategic Corridors were included in the GG Africa-Europe Investment package, with one corridor selected thus far: the Cairo-Khartoum-Juba-Kampala connection (Baranzelli et al., 2022).

While these projects demonstrate a significant advancement in the EU's approach to connectivity policies in the MENA region, doubts remain about their capability to effectively compete with China's Belt and Road Initiative (BRI). Notably, a large portion of BRI's investments in 2021 targeted the MENA region. In 2022, the MENA countries further enhanced their collaboration with China, receiving approximately 23% of all BRI investments, an increase from 16.5% in the previous year (Furness 2024). In order to be competitive as a trusted partner in the region, the EU needs to build on its comparative advantages and focus on delivering high-standard, transparent and environmentally sustainable projects. But the EU and China's engagements in the region are not necessarily in direct competition. The EU should foster a constructive collaboration with China, particularly on projects in the Mediterranean that promote green and technological advancements and enhance regional stability. However, the effectiveness of the EU's Global Gateway strategy will ultimately depend on its ability to develop long-term, sustainable partnerships with the countries of the Southern Neighbourhood. This will require not just the improvement and expansion of regional infrastructure but also a strategic alignment with local governments to address their specific needs and priorities. For this to be successful, the European Union must adapt its strategy to ensure adequate attention and resources are directed towards developing projects of joint benefit.

Bibliography

- BARANZELLI, C.; BLENGINI, G. A.; JOSA, S. O., & LAVALLE, C. "EU–Africa strategic corridors and critical raw materials: Two-way approach to regional development and security of supply." *International Journal of Mining, Reclamation and Environment*, 36(9), 2022, 607-623.
- BROOKS, D. H. & HUMMELS, D. *Infrastructure's role in lowering Asia's trade costs: Building for trade*. Cheltenham, 2009.
- CUSOLITO, A.P.; GÉVAUDAN, C.; LEDERMAN, D. and WOOD, C.A. *The Upside of Digital for the Middle East and North Africa: How Digital Technology Adoption Can Accelerate Growth and Create Jobs*, Washington, DC: World Bank, 2022.
- EUROPEAN COMMISSION. *Joint communication to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions, and the European Investment Bank: The Global Gateway*, JOIN/2021/30 final. Brussels: EUR-Lex, 2021.
- EUROPEAN COMMISSION. *Study on the critical raw materials 2023 – Final report*, 2023
- EUROPEAN COMMISSION. *Speech by Olivér Várhelyi at the 2024 Annual Summit of the European Business Network on the Global Gateway Initiative*. 2024.
- FURNESS, M. "The EU's Global Gateway and China's Belt and Road: Two Strategies and Two Realities for the Southern Mediterranean." in CETMO/IEMed, *Infrastructures, Energy and Digitalisation: Pillars for the Sustainable Development of Transport in the Western Mediterranean* IEMed Policy Study 8, 2024.
- HORJ, A. "Resilient infrastructure and regional value chains in the MENA region in enhancing resilience in a chaotic world: The role of infrastructure." In *Enhancing Resilience in a Chaotic World: The Role of Infrastructure* ISPI-McKinsey & Company Report, 2023.
- IMF. "Economic integration in the Maghreb: An untapped source of growth." *Developmental Paper Series No. 19/01*, 2019.
- LIN, J. Y. & WANG, Y. *Going beyond aid: Development cooperation for structural transformation*. Cambridge University Press, 2017.
- OECD. *Regional integration in the Union for the Mediterranean: Progress report*. Paris: OECD Publishing, 2021.
- OECD. *MENA-OECD Competitiveness Programme: Activities report 2021-22*, 2022.
- RIZZI, A. & VARVELLI, A. "Opening the Global Gateway: Why the EU should invest more in the southern neighbourhood." *Policy Brief, March 2023*. European Council on Foreign Relations.
- WOLF, C. & CHENG, S. "Chinese overseas contracted projects and economic diversification in Angola and Ethiopia 2000-2017." *IDCEA Working Paper 03/November 2018*. SOAS, University of London.
- WORLD BANK. *World Bank Enterprise Survey*, 2020a.
- WORLD BANK. *Trading together – Reviving Middle East and North Africa regional integration in the post-COVID era*. Washington, DC: World Bank, 2020b.
- WORLD BANK. *Conflict and debt in the Middle East and North Africa*. April 2024 Retrieved from <https://openknowledge.worldbank.org/entities/publication/725e73ba-c6c4-47f1-a9fe-f47fd9f70c13>.