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Diving into diversification: How North African countries can boost economic ties with the EU

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Abstract

Developed countries are witnessing a resurgence in industrial policy in response to the 'poly-crisis' caused by the COVID-19 pandemic, rapid digitalization, climate change and escalating geopolitical tensions. The concept of 'strategic autonomy', i.e. reducing reliance on key intermediate goods and raw material imports lies at the centre of industrial policy in the European Union (EU). Yet this emerging trend could impede the process of economic diversification in North African Countries (NACs) and slow down deeper economic integration with the EU. By analysing the trade patterns of industrial goods at the product level and applying UNIDO's DIVE ([Diversifying Industries and Value Chains for Exports](#)) tool, coupled with a novel filtering procedure, we identify the challenges and opportunities for NACs under this new European policy framework while also offering evidence-based policy recommendations for the region's governments.

Key Messages

1. The EU's "strategic autonomy" poses challenges, but also opens opportunities for NACs' industrialization prospects and their renewable energy exports.
2. All NACs have the potential to diversify into high value-added products across different industrial sectors.
3. Egypt has the greatest potential for specializing in a high number of products facilitated by its pre-existing productive capacities.

Navigating 'strategic autonomy': Balancing the EU's priorities with SDG 9 targets in NACs

On 1 February 2023, the European Commission unveiled its initiative "A Green Deal Industrial Plan for the Net-Zero Age" to promote a scale up of manufacturing capacities to achieve the EU's net-zero greenhouse gas emissions goals. Reducing the EU's reliance on key raw material and intermediate goods imports plays a central role within this framework. Specifically, the Plan introduces the "Net-Zero Industry Act" (NZIA) which outlines key technologies and products (including batteries, heat pumps, solar, electrolysers and windmills) to be prioritized for domestic production and for managing dependency risks.

Simultaneously, the EU launched the "Critical Raw Materials Act" (CRMA) with the goal of strengthening the Union's self-reliance in the mining, processing and recycling of 34 critical metals and minerals by accelerating and financing national programmes to explore the EU's geological resources. At the same time, the sourcing of such minerals from third countries will be gradually decreased by 2030. These critical raw materials belong to a larger group of 137 primary and processed products for which "the EU can be

considered highly dependent on imports from third countries"¹.

While the EU's new policy direction seems straightforward, "strategic autonomy"—a trend that is being observed in most advanced economies—raises a number of questions, for example whether such an inward-looking restructuring of European production processes is at all feasible. To what extent can the EU substitute international inputs with domestic or ideally "strategically autonomous" inputs while remaining competitive in the production and export of final goods and services?

Beyond the EU's borders, questions about the consequences of a restructuring of the EU's value chains on third countries arise, particularly in terms of their capacity to achieve the targets of Sustainable Development Goal 9 (the establishment of sustainable industrialization processes, a resilient infrastructure and increased innovation). These questions are especially relevant for North African countries (NACs)², given their high degree of trade integration with the EU and their dependence on specific exports, many of which are agriculture or energy-related products.

Strategic autonomy should ideally be reconciled with the principles of the European Neighbourhood Policy (ENP), which was launched in 2003 and aims to promote economic diversification and deepen economic integration with non-EU neighbouring regions³. A recent Communication revises the ENP framework to account for developments related to the COVID-19 pandemic:

The EU's strategic autonomy should be aligned with the continued deepening of economic integration with NACs

“... the focus on open strategic autonomy and the restructuring of global value chains in the wake of the pandemic has the potential to create new opportunities for further integrating industrial supply chains between the EU and its Southern Neighbours ... contribute to diversification efforts and to the development of win-win initiatives in the areas of market integration ...”

“...industrial clusters within the Southern Neighbourhood could help economic development by connecting businesses to global and regional value chains, reducing the isolation of SMEs, promoting innovation, and generating more trade and investment.”⁴

Using the DIVE tool to uncover untapped trade opportunities

Our analysis is based on the bilateral trade flows⁵ of 200 countries. We apply UNIDO’s DIVE tool⁶ to assess specialization opportunities within NACs’ product space. We also use complementary filtering techniques to single out products that would be mutually beneficial for NACs and the EU.

We first identify four product categories in NACs’ option set⁷, which includes specific products that could be considered for diversification: 1) “Short jumps-many competitors”; 2) “Short jumps-few competitors”; 3) “Long jumps-path dependent”, and 4) “Long-jumps-path defying”. Categories 1 and 2 correspond to products where new specializations would largely leverage on the country’s existing capabilities. Categories 3 and 4, on the other hand, comprise more ambitious specialization in products that are currently “distant” in the country’s product space⁸, but for which the DIVE tool identifies instances of other countries at a comparable level of economic development, which have succeeded in realizing these ambitious specializations. To simplify the presentation of results, we combine Categories 1 and 2 into a single group defined as “short jumps”. Categories 3 and 4 are grouped together into “long jumps”.

We calculate the growth rate of EU imports for the period 2015–2019 for each NAC and DIVE category⁹, focusing on products with a positive growth in imports (but exclude agri-food and minerals)¹⁰. Our aim is to

To alter the status quo and achieve stronger diversification of NACs’ export baskets, they must identify high value-added industrial products that can be produced in alignment with the countries’ available resources and capabilities and the EU’s strategic objectives. We identify such products by analysing the trade patterns of industrial goods at the product level and applying UNIDO’s DIVE (Diversifying Industries and Value Chains for Exports) tool. Our findings can inform an agenda that prioritizes investments to optimize the interests of both the EU and NACs.

BOX 1.

What is UNIDO’s DIVE tool?

UNIDO’s DIVE tool (Diversifying Industries and Value Chains for Exports) presents a novel approach to inform diversification policies based on a comprehensive analysis of the degree to which potential new specializations (products not part of the country’s current export basket) could be developed, even when the country does not possess the necessary set of productive capabilities. Such “long jumps” could boost economic performance and diversification.

identify target products that maximize the extent of diversification and move away from the current export basket, which is often characterized by low value-added products. The identified products serve as a proxy for future EU demand. Our results suggest that EU demand for a wide range of products from NACs increased significantly during the specified time period.

Next, we examine the degree of economic integration that would arise if NACs specialized in these specific products.¹¹ The majority of these products fall into two main categories in all NACs: (i) processed industrial

supplies (60 per cent), and (ii) consumer goods (20 per cent). The remaining products are capital goods, transport equipment and primary industrial supplies.

In line with the EU's self-reliance principle outlined earlier, specializing in critical raw materials does not appear to be a viable development strategy¹². The most promising specialization opportunities would thus likely arise from integrating in the value chain's middle and final segment. NACs currently only export a limited amount of the critical raw materials identified¹³.

Specializing in certain products requires capabilities that many NACs do not necessarily possess. We introduce an additional "supply-side" filter and select products for which the countries already have a significant level of capabilities. This indicates how easily the country could produce the relevant goods¹⁴. These

products can be considered low-hanging fruits: not only are they projected to be in high demand in the EU, not only are they projected to be in high demand in the EU, their pre-existing capabilities may also represent a solid foundation for a future specialization trajectory¹⁵.

We identify several products for each NAC, categorized into four groups. Products filtered exclusively along the "demand-side" criterion (positive EU import growth) in the category "short jumps" are grouped together. Products that are demand-filtered and belong to the category "long jumps" are classified together. The third group includes "short jump" products filtered using both demand and supply criteria, while the fourth one groups together products from the "long jumps" category, filtered using both demand and supply criteria.

Evaluating specialization opportunities in NACs: Prospects for economic diversification

DIVE's recommendations are rooted in the "long jump" experiences of countries with a similar level of gross domestic product (GDP), but do not account for country- and value chain-specific conditions. Therefore, pursuing a "long jump" might prove overly ambitious in some cases due to a lack of suppliers, skills or even unfavourable political conditions for further specialization. We complement our analysis by considering the current composition of NACs' export baskets, which provides additional insights into the feasibility of proposed specializations.

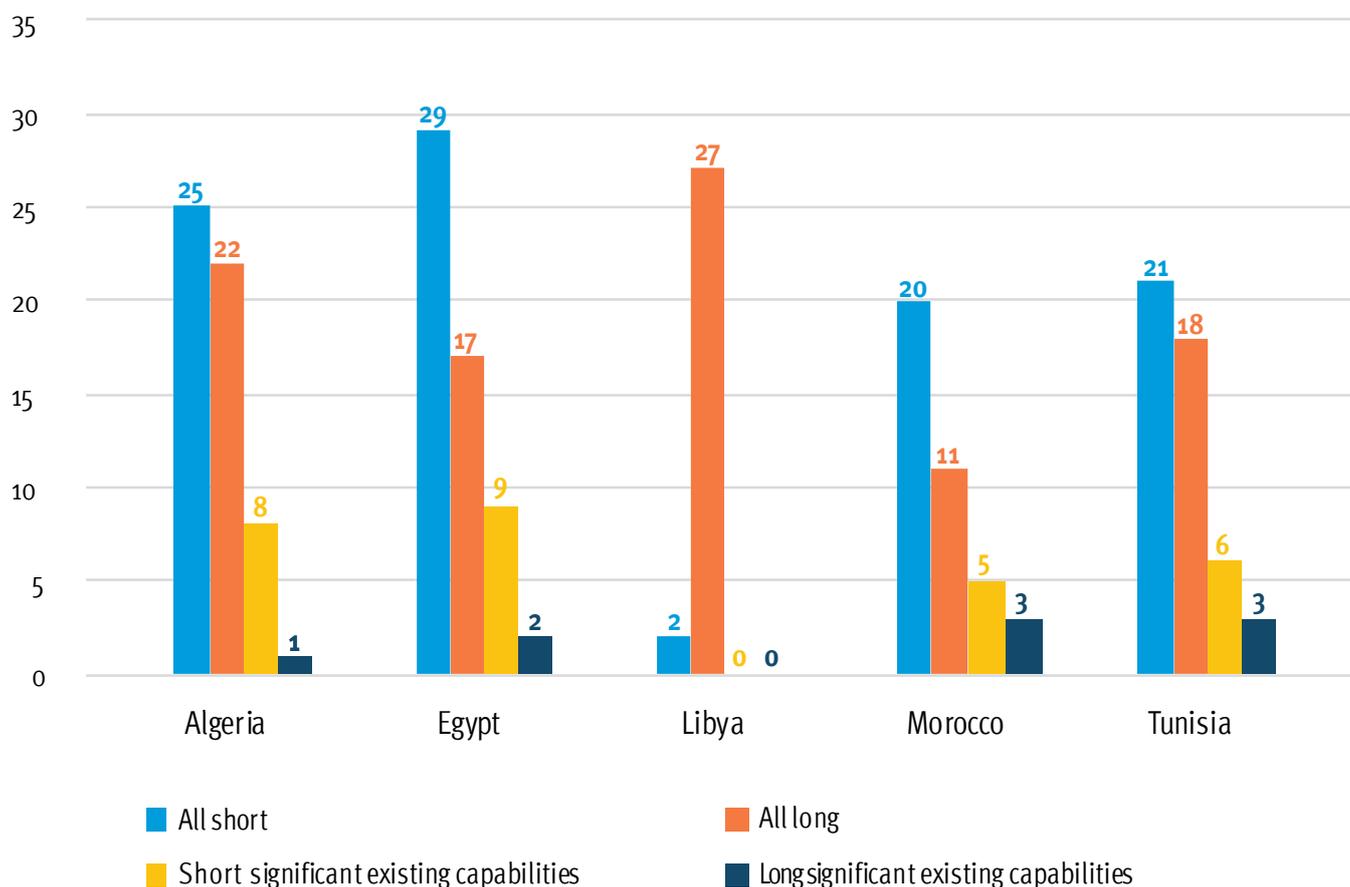
We summarize our findings in Figure 1. All NACs show opportunities for diversification, even after applying a rigorous filtering process. Figure 2 indicates that these opportunities are distributed across different industrial sectors. When looking at the average results of both

filters, Egypt stands out as having the greatest potential for specializing in a high number of products facilitated by its pre-existing productive capabilities. These include chemical products, which account for around 10 per cent of Egypt's current export basket, as well as machinery and electrical products, which represent a lower but still relevant share of the country's exports. The fact that Egypt already exports some of these products implies that the country—as suggested by the DIVE tool—may possess the necessary conditions for further specialization, including the presence of skilled workers, suppliers and distribution infrastructure.

While Libya may not show as many opportunities for "easy" specialization, it has the greatest potential for ambitious ones. This does not necessarily come as a surprise considering the country's limited degree of diversification, with approximately 90 per cent petroleum exports. Given Libya's restricted set of capabilities, the DIVE tool cannot identify products for 'easy' specialization. There are a number of opportunities in metal and textile products that other countries at a comparable level of economic development have successfully pursued by developing capabilities they initially lacked. Whether Libya, where these product categories account for less than 3 per

Egypt possesses considerable potential for further specialization in chemicals, machinery and electrical products

FIG. 1: NUMBER OF 4-DIGIT HS PRODUCTS, BY NAC

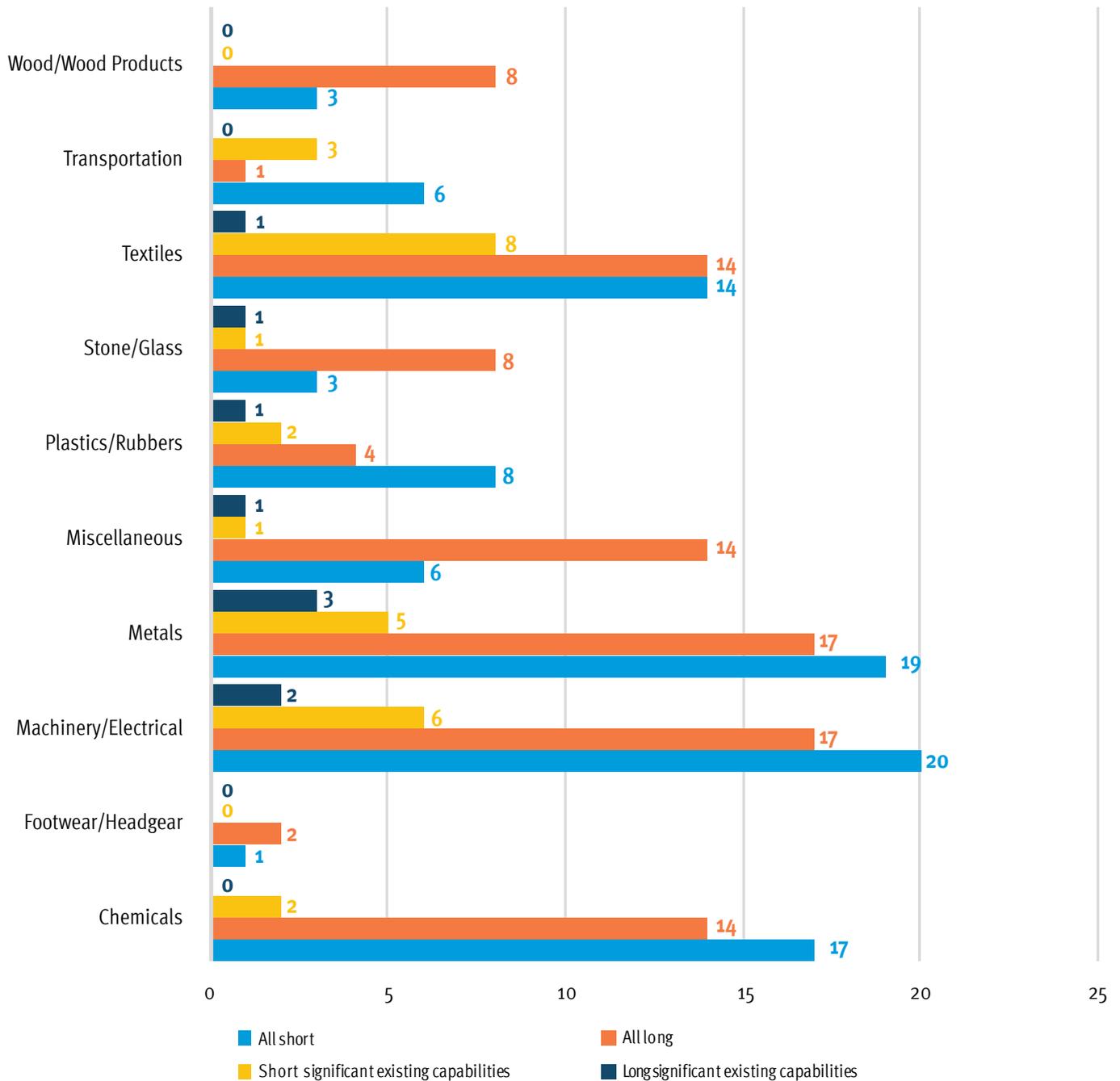


cent of the current export basket, can achieve similar success remains to be seen.

The country with the lowest number of goods in the ambitious specialization category is Morocco. Although the number of ambitious specializations may be lower, the country's significant acceleration in diversification between 1995 and 2015 suggests that Morocco might be well-positioned for a successful acquisition of new ambitious specializations. The potential for both 'easy' and ambitious specializations is relatively equal in Algeria. The products identified by the DIVE tool include metals, machinery and electrical and chemicals, which

make up around 5 per cent of Algeria's current export basket. Similar to Algeria, Tunisia also has a balanced number of opportunities for both 'easy' and ambitious specialization. The most relevant products include metals, machinery and electrical goods, as well as textiles. Chemicals and metals presently account for 4 per cent to 7 per cent of Tunisia's export basket, while machinery and electrical goods make up over 20 per cent, suggesting that the country may have the necessary ecosystem to pursue further specialization in these products.

FIG. 2: NUMBER OF 4-DIGIT HS PRODUCTS, BY INDUSTRIAL SECTOR



Challenges and strategies for EU-NAC trade in the face of shifting dynamics

We have used the DIVE tool coupled with a filtering procedure to identify a range of high value-added industrial goods that offer a tangible opportunity for NACs to break away from their export baskets' historical concentrations. Diversifying into the products identified would potentially not only increase NACs' development prospects and reduce their vulnerability to market fluctuations, but would also align their trajectory with the EU's new strategic industrial policy orientation. By leveraging NACs' comparative advantage in the production of the identified goods, the EU could also benefit from enhanced market integration, especially within the middle-end of the value chain. This, in turn, could lead to a more efficient allocation of resources.

There are two major obstacles, however. First, multiple crises and the weakening of global value chains could slow down NACs' industrialization progress and the EU's efforts to promote manufacturing development. The unwavering pursuit of 'strategic autonomy' by the EU, irrespective of its existing commitments under the ENP, runs the risk of undermining decades of market integration in the region. For example, the European Green Deal presents a unique opportunity for Europe to achieve stronger economic and energy integration with NACs. While current evidence¹⁶ clearly highlights the potential of energy imports from NACs to Europe, key EU strategic documents point out the risk of a "situation of strategic dependence that could in turn hamper the EU's future deployment of solar technologies"¹⁷.

This strategic shift could impact investments in green energy production in NACs. Estimates of the World Trade Organization (WTO) and the International Monetary Fund (IMF) suggest that fragmentation could lead to potential losses ranging from 5 per cent to 7 per

The EU's Green Deal could catalyse stronger economic and energy integration with NACs

cent of global GDP¹⁸. Such losses would negatively affect both developing and advanced economies. In 2022, the European Parliament released a new recommendation against fragmentation by proposing a new agenda for the Mediterranean "to secure an environment able to support those EU-based companies that want to nearshore and to promote longer-term investment in the Southern Neighbourhood"¹⁹.

The second obstacle to deeper integration between the EU and NACs is the fact that the latter often lack the necessary production capabilities to manufacture the goods identified by the DIVE tool, especially the high-return products in the ambitious "long jumps" category. In this regard, international organizations play a pivotal role in facilitating the industrialization process in these countries and in fostering deeper economic integration with the EU.

One effective policy option is the Global Gateway framework initiative, the EU's most recent trade policy, technical support and capacity development programme, which was launched in 2021²⁰. Moreover, expanding EU financing initiatives to NACs is crucial to advance industrial development in these countries and enhance their economic integration with the EU.

Endnotes

¹ European Commission (2021a), [Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery](#), Commission Staff Working Document SWD(2021) 352 final (2021).

² See UNIDO's [Country Diagnostics](#) for an overview of the current policy objectives of a selected sample of developing countries.

³ The ENP is funded through the [Neighbourhood, Development and International Cooperation Instrument](#) (NDICI - Global Europe) with a total of EUR 19.3 billion.

⁴ European Commission (2021b), [Renewed partnership with the Southern Neighbourhood - A new agenda for the Mediterranean](#).

⁵ The analysis is conducted at the product level (about 1,200 products), classified according to the 4-digit "Harmonized System" nomenclature (HS).

⁶ Coniglio, Nicola D., et al. (2021), [On the evolution of comparative advantage: path-dependent versus path-defying changes](#), *Journal of International Economics* 133: 103522.

⁷ The option set includes all products that are currently not being produced by the countries.

⁸ Hidalgo, César A., and Ricardo Hausmann (2009), The building blocks of economic complexity. *Proceedings of the national academy of sciences* 106.26: 10570-10575.

⁹ We exclude recent years to avoid the pandemic's confounding impact.

¹⁰ We analyse the 2-digit HS codes from 28 to 97, thus excluding Animal & Animal Products (HS 01-05), Vegetable Products (HS 06-15), Foodstuffs (HS 16-24), as well as Mineral Products (HS 25-27). Food and mineral products are normally important export items and priority sectors in developing countries. These products are excluded from the analysis to focus on diversification opportunities embedding greater opportunities of value addition.

¹¹ We use the Broad Economic Categories (BEC) classification.

¹² DIVE identifies two critical raw materials, namely manganese in Libya and Tunisia and titanium in Egypt. While these metals are considered part of the countries' option set, the feasibility of their extraction and production hinges on their abundance in the countries' natural endowment and on the specific conditions within the country's value chain, which the DIVE tool does not provide insights into.

¹³ Among others, phosphate production in Egypt and Morocco and arsenic in Morocco are relevant exceptions.

¹⁴ High-RCA products are defined as those with an RCA larger than the median percentile of the sample's index distribution in each country.

¹⁵ Technically speaking, successful specialization is represented by an RCA that is higher than unity ($RCA > 1$).

¹⁶ Ristau, O. (2023), [Solar power from the desert](#), *KfW Stories*.

¹⁷ European Commission (2022), [EU strategic dependencies and capacities: second stage of in-depth reviews](#).

¹⁸ UNCTAD (2023), [Trade and climate change: A Q&A with UNCTAD deputy Pedro Manuel Moreno](#).

¹⁹ European Parliament (2022), [Report - A9-0220/2022](#).

²⁰ The Global Gateway represents the EU's contribution to narrowing the global investment gap in line with the commitment of the G7 leaders pledged in June 2021. It is expected to mobilize up to EUR 300 billion in investments for sustainable and high-quality projects over the next years. The European Commission has already mobilized significant resources for some African countries within this framework. NACs have shown particular interest in establishing interconnections with the EU through optical fibre cables. See [Global Gateway](#).



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