LOGISTICS AT A CROSSROADS: A SHIFTING SCENARIO, ECONOMIC ZONES, AND AFRICA'S POTENTIAL

ALG

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NAVIGATING UNCERTAINTY
A CLOUDY ECONOMIC LANDSCAPE

Current scenario for the logistics sector appears to be cloudy with slight chances to see the sunlight ahead. The sector is facing complexity as the economic nodes and industries it supports are facing disruptions and stagnation. Merchandise trade, that had been consistently growing since the pandemic seemed to reach a tipping point in 2023 experiencing a 1% decrease in real terms.

In the same line, exports, at a global level, which experienced a predictable rebound effect post-COVID 19 in 2021 with a 11.8% growth rate year-over-year, are now stabilizing and forecasts expect a downward growth trend around the 3% line looking ahead towards 2030-time horizon.

Yet, on the bright side, other drivers behind logistics sector performance seem to be performing well. Aggregated consumption is outpacing economic growth itself, paving the ground for short term freight demand that will derive into a dynamization of logistics' activity.

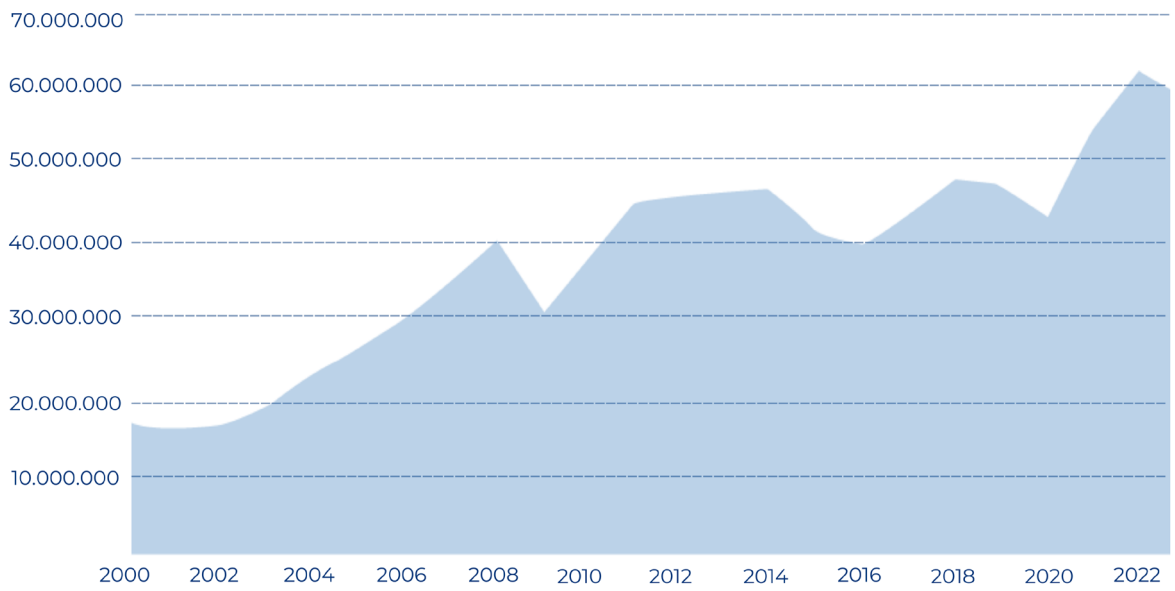


Figure 1. Annual merchandise trade (US$ at current prices in millions)[1]

[1]Source: Oxford Economics.

The prior macroeconomic conditions convey the impression that logistics sector is navigating a scenario of economic uncertainty. While there is a good prospect driven by a higher consumption, external factors difficult to perceive stability, at least in the short term.

Key economic activities that make up the logistics' cost structure and value chain, as the oil industry are facing stagnation. In this case, as bunker fuel share in maritime transportation costs rounds the 50-60%[2] line, oil market behavior certainly impacts the logistics' economic soundness.

While oil demand outlook remains moderately positive, stock building has experienced fluctuations – see figure below. Accordingly, stock building impact oil prices, due to natural supply and demand behavior, and by such channel affect the logistic sector cost structure.

The prior, aside to oil activity fundaments inherent to the activity, often derives from geopolitical factors[3]. Circumstances as the current where oil production and commercialization is disrupted by political instability led to price volatility in international markets.

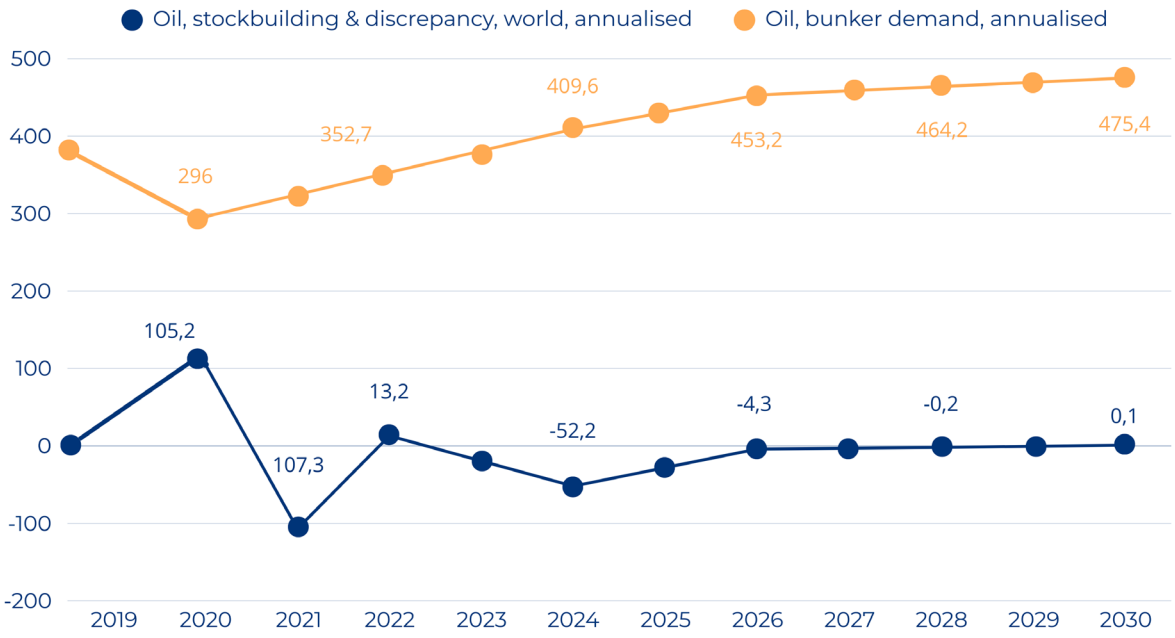


Figure 2. World oil bunker demand and stock building (Million oil equivalent tons)[4]

[2]Statiotis, E. 2018. Fuel Costs in Ocean Shipping. Published in More than shipping magazine.

[3]European Central Bank. 2024. Speculation in oil and gas prices in times of geopolitical risks.

[4]Source: Oxford Economics.

In terms of sectorial behavior, the trade sector has experienced several transformations during the past years. With COVID-19, trade leaned towards durable goods, positioning the logistics sector as a key supporting activity to cope with freight transport needs.

Although this trend is slightly reversing to a more balanced split between goods and services[5], some factors seem to persist. E-commerce has gained traction and sales activity that take place through it continue to increase constantly – see figure below.

This has put pressure on the logistic sector to become more efficient, calling for the adoption of technologies (automation, AI, digitalization, among other) and procedures that help improve planning and management of stocks and shipments to attend customers' demands.

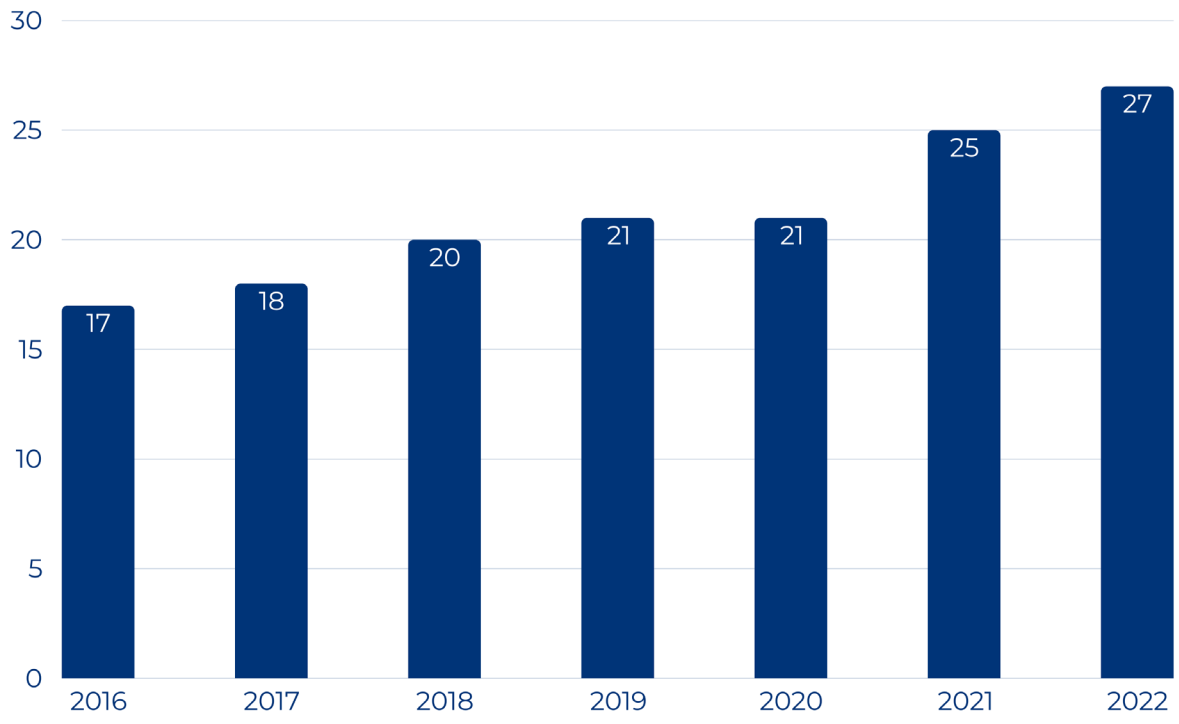
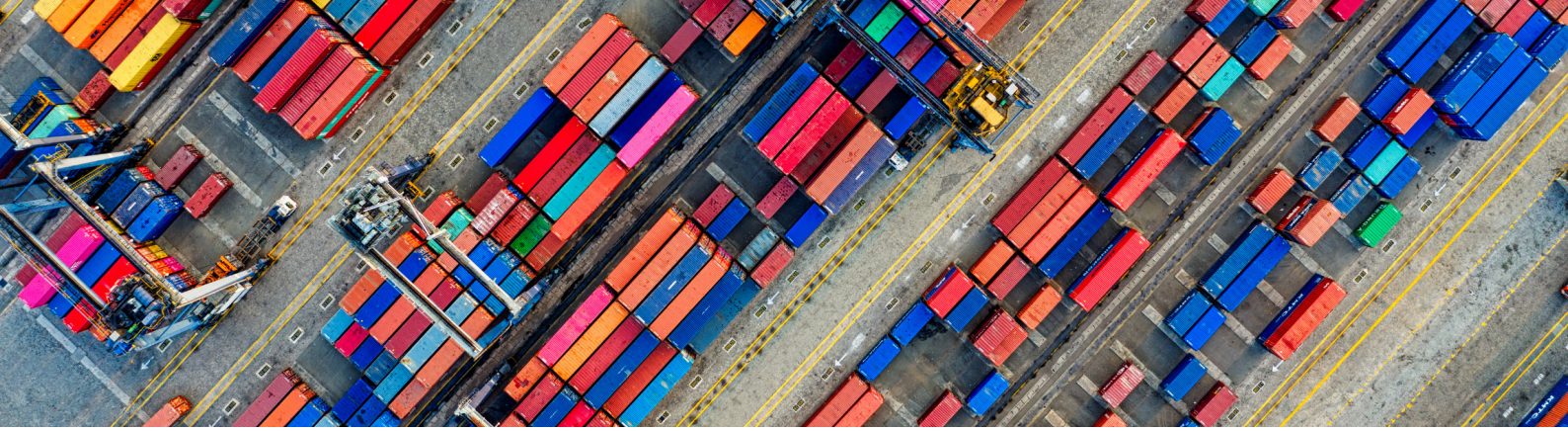


Figure 3. E-commerce sales worldwide (current USD trillions)[6]

[5]Source: UNCTAD database - trade breakdown by type.

[6]Source: UNCTAD. 2022. Business e-commerce sales and the role of online platforms.



In parallel, geopolitical tensions in the past years have configured challenges to logistics activity as these have magnified long-lasting issues in global supply chains as labor shortages and demand imbalances putting pressure to the sector's performance.

Sudden political shocks at a global scale, such as the most recent tariff scheme announced by the United States' administration in early 2025 puts the logistics sector in the cross-fire as trade norms as being re-defined. Shocks as these impact the logistics sector as it must adapt to new regulations, standards and sudden shifts on supply chains.

Also, a changing landscape puts company's investments on hold on a "wait-and-see" mode, slowing down the economic pace of industries. Sector-wise, the growing volatility has enabled the surge of new approaches in supply chain management, such as re or near shoring.

Re-shoring and near-shoring involve companies' deciding to move their goods production nearer to their end markets.

Re-shoring consists of the decision to bring back production facilities to the direct end market say they company's home country while near-shoring comprises a movement of goods production to the company's region. Some of the major global phenomena are the conflicts in Gaza and Ukraine, the current tariffs set by the United States and the scalation of it, disruptions in ports derived from the 2020 containers' crisis and the current difficulties faced in the Panama Canal, among others.

Amid geopolitical turmoil companies have been growingly looking for resilience and lesser risks. For that reason, re and near shoring have gained momentum as lead times reduce and supply chains face less exposure to disruptions in other latitudes. The following figure showcases the growing appetite for said sourcing schemes as per survey data of several companies worldwide.

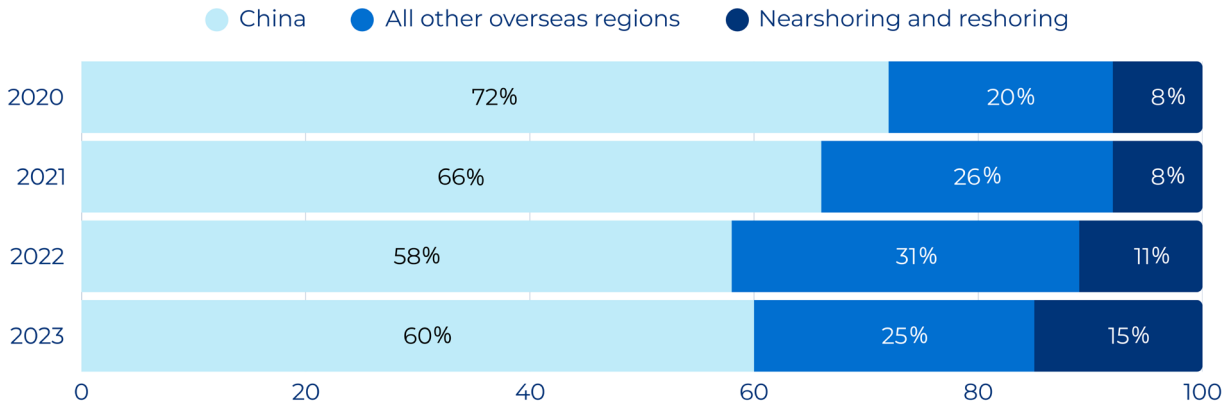


Figure 4. Share split of overseas and near/reshoring sourcing for EU-based companies[7]

[7]Source: QIMA. 2024. Nearshoring and Reshoring Trends: Recent Updates - Barometer.

In that context, Eastern Europe countries and Mexico are some examples that stand out because they have profited from these trends as their location aligns well with European and North American companies target markets.

Their geographical position help reduce delivery times with end customers as e-commerce sales push for fast operation schemes, at the time it reduces exposure to costs that stem from demands disbalances as those exhibited during the pandemic with containers geographical concentrations.

By the large, the logistics sector has faced significant complexity and has had to quickly adapt to evolving market demands. Accordingly, over the recent years, challenges such as technology integration, sustainability, and regulatory compliance, among others have emerged as key obstacles in the short and medium term for companies navigating the sector's ongoing disruptions.

ADDRESSING COMPLEXITY
A CLOSER LOOK INTO THE MAJOR CHALLENGES OF THE LOGISTICS SECTOR

Considering the broader context outlined before, the present section condensates some of the most relevant challenges for the logistics sector' near future. These, range sociodemographic aspects such as aging population, shifting consumption patterns, and the evolving need to become more efficient in an era of new technological advances.

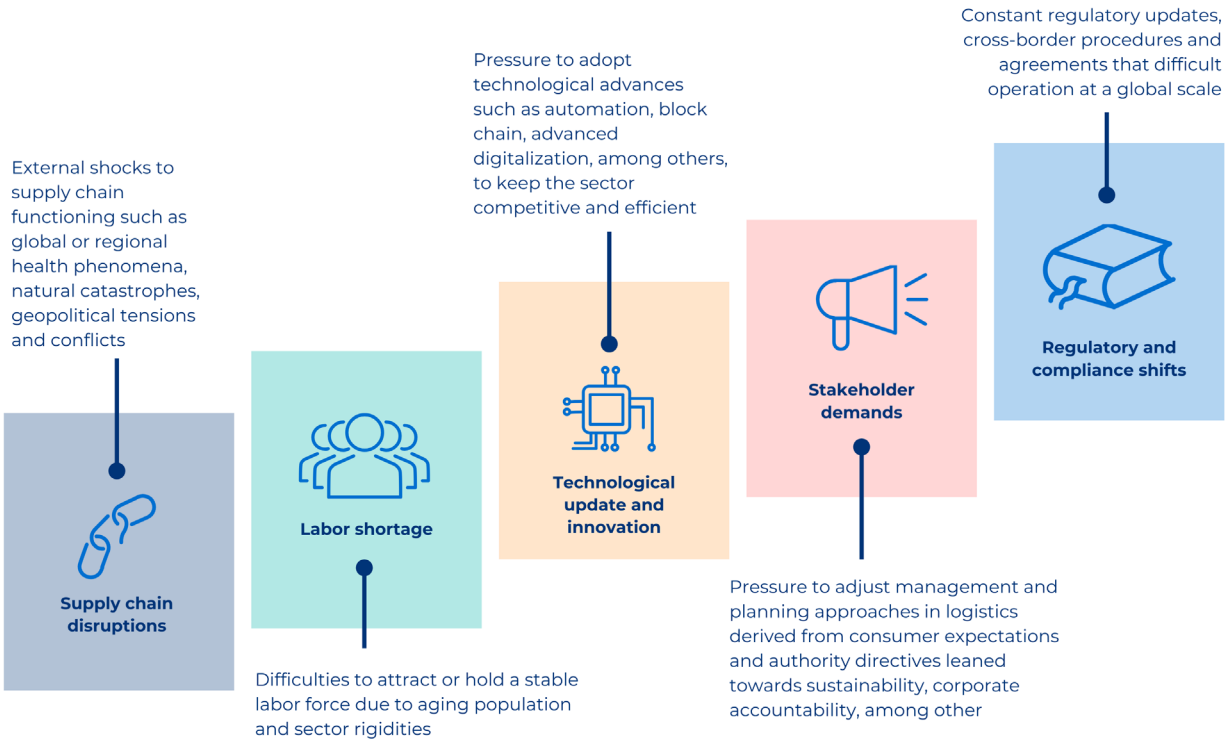
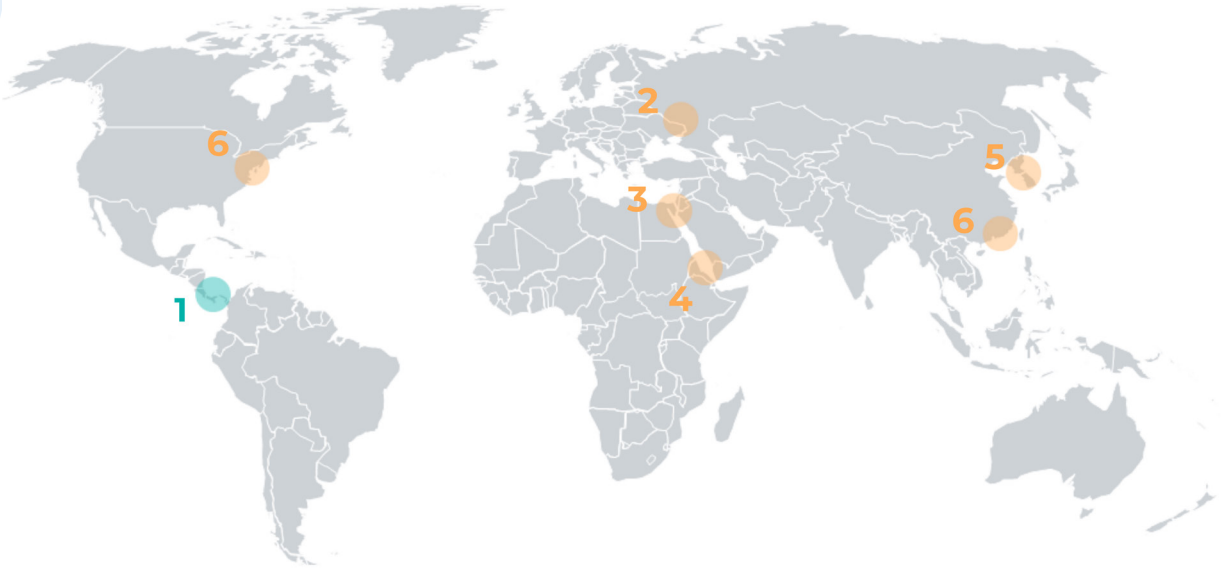


Figure 5. Short-and-medium-term challenges for the logistics sector

SUPPLY CHAIN DISRUPTIONS

As described in the past section, one of the current major challenges for the logistics sector refers to the growing external factors that play an important role in the economic setting. They span the political arena and have managed to involve, also, climate affairs.

As the logistics sector operates in a global scale nowadays, political tensions that involve decisions over customs, or even political disputes that aim to transcend into confrontations affect a sector that makes use of inland, sea, and air routes to connect supply and demand. Some of the most relevant disruptions for the logistics industry and their risk, are the following:



	Disruption	Type	Risk[8]	About
1	Panama canal drought crisis	Climate	High	Historically low rainfall has severely reduced water levels, limiting the number of ships passing through and increasing delays. This has disrupted global trade routes and raised shipping costs.
2	Ukraine conflict	Geopolitical	High	Conflict between Russia and Ukraine has been active since 2022. The war has disrupted global supply chains causing shortages of essential goods like grain, metals, and energy, especially in Europe.
3	Gaza war	Geopolitical	High	The upsurge of the conflict in Gaza has disrupted key supply chains in the Middle East, particularly affecting regional trade routes. Insecurity risk, delays at border crossings, and port closures have led to increased transportation costs and uncertainty for global trade.
4	Threats	Geopolitical	High	Recent Red Sea vessel attacks, coupled with insecurity risks in the Sahel region and other threatens in multiple other countries represent risks for the functioning of trade routes and investment flows in multiple sectors.
5	Korea tensions	Geopolitical	Medium	Political tensions that have transformed into provocations and military actions represent risks to the Asian ecosystem and to sectors that operate and/or depend on countries in said region as Korea and Japan.
6	China-USA tensions	Geopolitical	High	Political tensions for Taiwan, added to the trade war that initiated in 2018 that led to increased tariffs over several goods, have disrupted global supply chain operativity as this involve the top-two players in trade.

Figure 6. Identification of current supply chain disruptions

[8]Source: Geopolitical disruption risk is derived from Black Rock. 2024. Black Rock Geopolitical Risk index, and Panama Canal disruption risk derives from ALG own analysis.

Even though most of the disruptions identified have regional direct implications, the level of integration of supply chains at a global scale lead to generalized effects on cost structures, transactions, and operational schemes as companies internalize external risks into their day-to-day decision making.

Metrics and assessment conducted indicates so. The Container Freight Index[9] recent behavior, tracking freight prices for the most relevant ports in China, showcases rising fluctuations while the Global Container Freight Rate Index tracking rates for 8 key shipping routes does so also with recent steep increases in mid-January of 2023 and late April of 2024 – see figure below.

Figure 7. Global Container Freight Rate Index (USD per 40 ft container, 2023, 2024)[10]

[9]Source: Trading Economics. 2024. Containerized Freight Index.

[10]Source: Own elaboration based on data of Trading Economics. 2024. Containerized Freight Index.

LABOR SHORTAGE

As per World Health Organization estimates, world population is aging. By 2030, nearly 16% of global population will have 60 years or more, resulting in 40% increase in a period of 10 years, from an estimated 1 million in 2020 to about 1.4 million in 2030[11]. Naturally, this effect has transferred into economic sectors' labor force composition bringing with it challenges related to capabilities and resource availability.

Similarly, since COVID-19, multiple sectors adapted working schemes and evolved towards flexibility, to hybrid or remote arrangements. Unfortunately, some sectors as logistics, due to their natural configuration are uncapable to migrate to said flexible arrangements and tend to remain unappealing for job-seeking population that value flexibility. At last, sudden logistic demand service fluctuations – due to factors as the dramatic rise in ecommerce sales volume – as those exhibited during 2020 and 2021, outpaced the companies' procedures and immediate capabilities to adapt staffing and organizational structures accordingly.

One example of this is truck driver shortage, where in Europe, one of the regions that have experienced a rapid aging dynamic, 2023 data outlines a shortage that has left countries as Spain and Germany with about 30,000 unfilled driver positions while multiple others as France, Italy and Rumania surpass the 20,000-line.

[11]Source: World Health Organization. 2024. Ageing and health fact sheet.

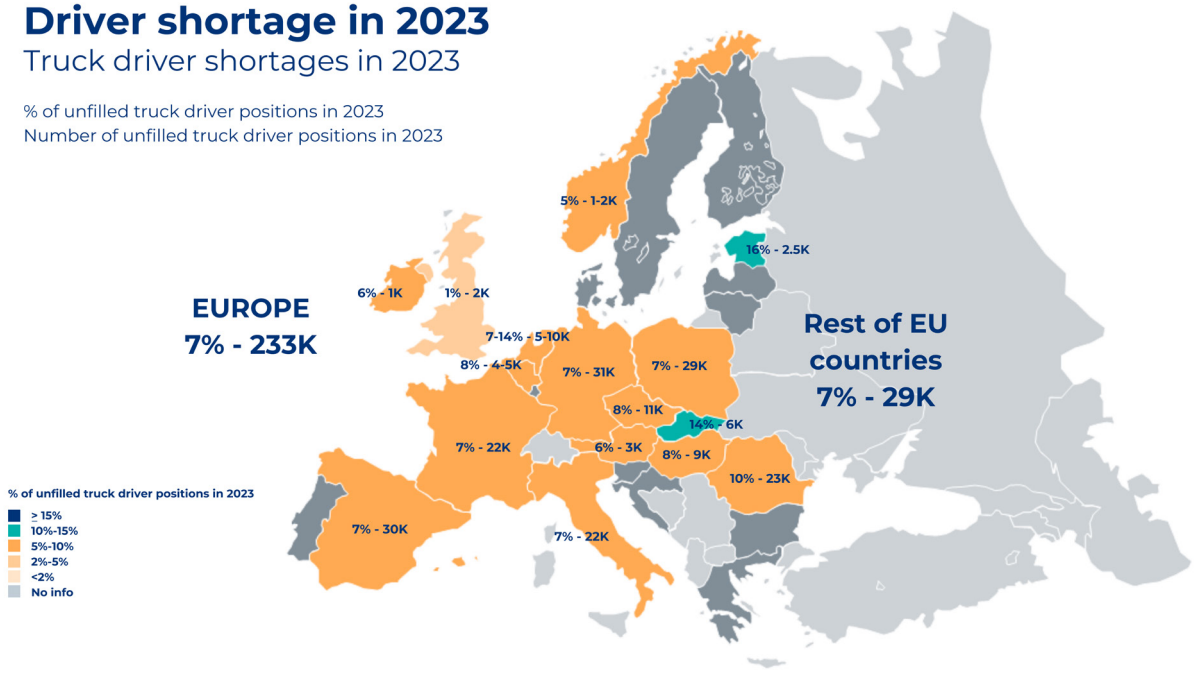


Figure 8. Driver shortage in 2023 in Europe[12]

Naturally, multiple impacts stem from these circumstances. Some of them refer to cost increases, delays, and product shortages – in specific geographies –, cascading into supply chain inefficiencies. Surveys conducted in Europe and North America indicate that more than 75% of logistic companies have been affected by this issue[13].

[12]Source: International Road Transport Union. 2024. Half of European truck operators can't expand due to driver shortages - Newsroom.

[13]Supply Chain Movement. 2024. Three quarters of companies in supply chain and logistics affected by labor shortage – based on Descartes Systems Group survey.

TECHNOLOGICAL UPDATE AND INNOVATION

Usual pain points in the cooperativeness of transportation and warehousing tasks, along with pressures that arise from customers' expectations, human resource scarcity and disruptions at a global scale converge to pressure the logistic sector to become more efficient.

By doing so, advances that have emerged in other industries such as Artificial Intelligence (AI), machine learning, automation and blockchain – among several others – are required to be adapted to the logistics sector. This, to cope with demand, to depend less on human resource availability and capability, and to shield the companies against risks.

Although the benefits that could stem from their usage in the sector, specifically in terms of inventory optimization, warehousing management and demand forecasting are evident, their implementation implies a major investments and training for staff members.

Existing data for subsets of companies that operate in the industry reveal a growing awareness for technology update. Specifically, companies in advanced industries, travel and infrastructure, and energy and materials indicate that investments in logistics technology have increased relatively from 2020 to 2023[14]. Thus, the challenge remains in the field of implementation, on translating the investments into usable tools amid a fast-paced landscape.

[14]McKinsey. 2023. Logistics Survey to shippers and providers of the logistics survey.

STAKEHOLDER DEMANDS

Stakeholder-wise, the sector is facing growing challenges driven by two major concerns: sustainability and evolving consumer expectations. On the sustainability front, companies are under increasing pressure to reduce their carbon footprints as governments, regulators, and consumers demand environmentally responsible practices.

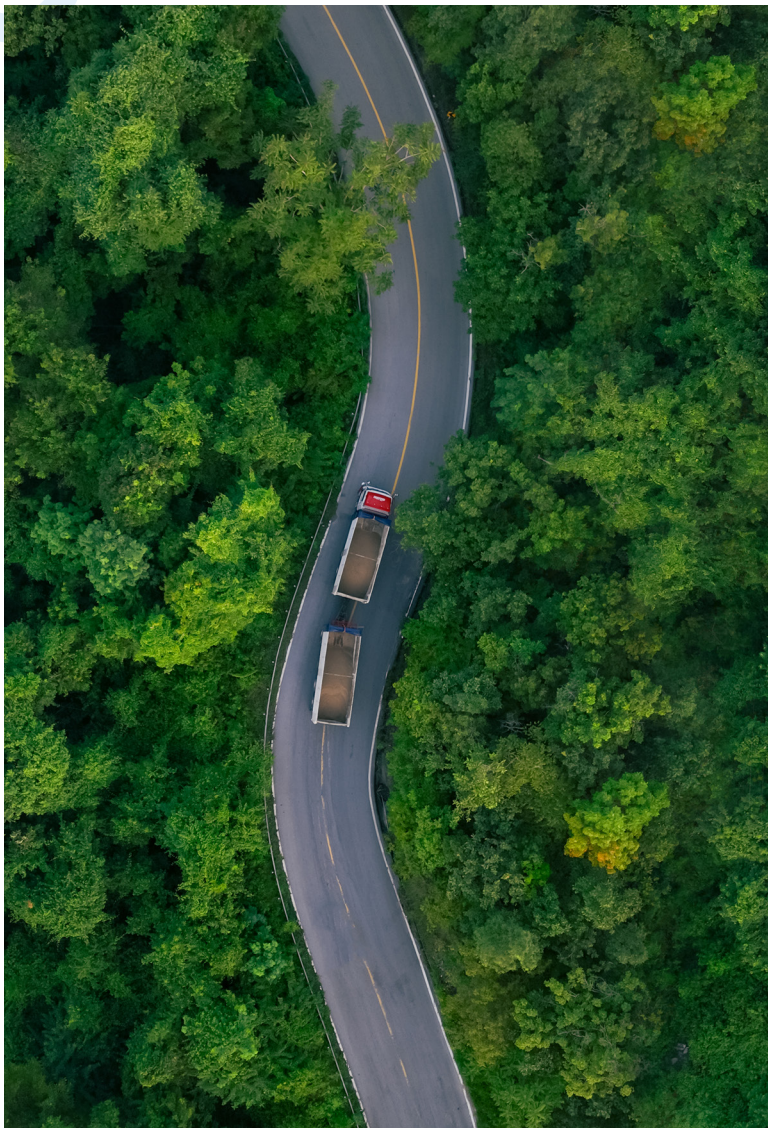
This push for greener logistics is complicated by the need to balance costs while implementing cleaner technologies and alternative fuels. In parallel, in the user side, the rise of e-commerce has reshaped expectations, with immediate shipping and same-day delivery becoming the norm nowadays. Meeting these demands puts pressure on logistics networks, particularly in last-mile delivery.

Sustainability and environmental concerns

The existence and timely update of regulations and standards, both at a regional and global scale, as well as the appearance of certifications and permits to warrant sustainability and decarbonization on the logistics sector configure a challenge nowadays and for the short-and-medium term.

These, cascade from country-level responsibilities and commitments acquired in the international arena from spheres as the Paris Agreement or the European Green Deal coupled with a relevant participation of the sector in global greenhouse gases emissions' share split.

The challenge remains in the adaptation of operational setups, budget allocation, and human resource training to align companies' management and operation, as well as the enhancement of skills and the allocation of resources to monitor and report metrics on the matters, as traceability is often required to guarantee compliance with regulation and standards.



Consumer expectations

As outlined before, the changing landscape for the logistic sector has come with consumer expectations on delivery times. Meeting same-day or next-day delivery expectations stresses logistics networks, specifically for last-mile delivery, a segment of the chain that is particularly labor-intensive and costly due to the urban setting complexity.

All above considered, the challenge for the logistics sector lies in the adaptation of operational and management schemes to deal with such demands while remaining competitive.

This translates into additional investments and costs to expand operations in terms of infrastructure, equipment, and labor force or to adjust existing operating schemes. One of the examples of said adjustment is the shift in the supply chain approach of just-in-time to a just-in-case, keeping stocks in certain locations to deal with regional demands, shortening transport routes and reducing risks of time delay.

In numbers

In the United States[15], people working in delivery were estimated to be more than 1.59 million in 2023, plus the short-term outlook forecasted for the 10-year period between 2023 and 2030 reveals a rapid increase of said occupation surpassing that of others by 5 percentage points (9% growth vs. 4% for all occupations in the country).

[15] U.S. Bureau of Labor Statistics. 2023. Occupational Outlook Handbook.

REGULATORY AND COMPLIANCES CHANGES

The logistics sector faces increasing challenges due to evolving regulatory and compliance frameworks. As governments and multilateral institutions worldwide seek to address environmental concerns, safety standards, and data security, new rules are continually introduced while the existing ones are timely being updated. For instance, the global push towards the economy's decarbonization has led to stricter regulations on fuel efficiency and vehicle emissions, requiring logistics companies to invest in greener technologies and more efficient processes.

Additionally, on the safety side, data protection laws create new complexities to manage and guarantee the protection of the vast amounts of data that logistics operations imply, from shipment tracking to customer details.

Another cause behind these regulatory changes is the progressive emphasis on trade and cross-border security. Countries are tightening customs and import/export controls to prevent illegal activities and protect supply chains accordingly.

As a result, players in the logistics sector are required to adapt management and operational schemes to comply with documentation requirements, new tariffs, while also bearing in mind other key factors such as international trade agreements.

The prior adds financial and managerial burdens to the companies in the sector, especially for those small and medium sized that could potentially struggle to keep pace with constantly changing laws. Similarly, in the event of non-compliance, these regulatory shifts expose companies to fines and sanctions, that will certainly affect financial performance and could potentially harm the reputational capital of said businesses.

HOW TO NAVIGATE PRESENT TIMES
THE ROLE OF ECONOMIC ZONES AS DRIVERS OF RESILIENCE AND EFFICIENCY

In an increasingly complex and volatile global trade environment, trade and value chain systems face mounting challenges spanning regulatory issues, geopolitical fragility and macroeconomic uncertainty. Amid this context, stakeholders in several industries seek refuge in schemes and tools that lower risk exposure.

The number of companies facing supply chain risks, or regulatory compliance risks is on the rise. In this context, Economic zones – whether in the form of logistics zones, special economic zones (SEZs), or industrial zones – offer valuable tools to help navigate this complex environment.

By concentrating logistics infrastructure, simplifying trade and customs processes, and fostering innovation ecosystems, these zones provide structured environments that enhance supply chain efficiency and resilience.

In a nutshell, economic zones – encompassing logistic zones, industrial zones and SEZs – are geographically limited areas designated to concentrate economic activity and enhance the flow of goods through specialized infrastructure, connectivity and streamlined regulations.

In such a way, these zones bundle product lifecycle, from sourcing through connections and synergies with local economy, manufacturing (in some cases), and last mile processes and distribution.

Their tailored design, aligned with local and regional economic landscapes position the economic zones as spaces that foster efficiency and help reduce exposure to supply chain risks.

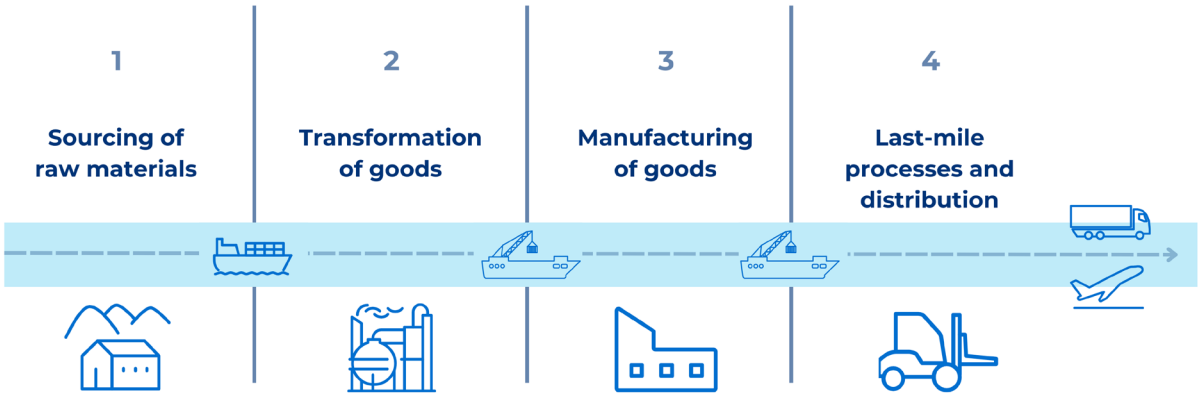


Figure 9. Scope of an Economic Zone

Economic Zones bolster trade system resilience by providing controlled, well-equipped environments that mitigate disruptions and facilitate seamless regional and global connectivity.

By doing so, Economic Zones enhance logistics performance by clustering production, distribution, and services, thereby reducing transit times and operational costs along value chains. In such a way, the benefits of Economic Zones to logistics can be categorized in three main channels:

(A) institutional and regulatory frameworks that streamline operations.
(B) strategic location, and spatial and infrastructure design that facilitates efficient goods movement.
(C) economic linkages across key stakeholders in the supply chain.

Together, these mechanisms yield improvements in transport efficiency, cost reduction, modal integration, and overall regional competitiveness.

Institutional and regulatory frameworks that streamline operations, referring to the tailored regimes and governance structures that are implemented. Relaxed regulations, expedited procedures and "single window" clearance systems cut clearance times, enhancing logistics' performance.

Similarly, governments typically provide fiscal incentives and flexibility on land-use configuration and business licensing that lowers administrative hurdles and delays for freight.

These institutional measures lower administrative hurdles and delays for freight. One result is faster transit and dwell times: when paperwork and inspections are simplified, goods spend less time idling at ports or checkpoints, improving overall transit speed. Moreover, cost efficiencies are achieved through institutional frameworks.

Duty exemptions and tax breaks directly reduce the cost of importing components or exporting products. Simplified procedures mean lower compliance costs and fewer fees for shippers.

> In India the introduction of Special Economic Zones (with tax incentives and single-window approvals) led to an 18% jump in exports in one year as firms benefited from faster clearances and better facilities[16].

[16] WEDC. 2018. India's special economic zones boost foreign investment.

B **Strategic location, and spatial and infrastructure design that facilitates efficient goods movement,** referring to the deliberate location of Economic Zones at strategic nodes, near transportation facilities and access points.

Similarly, referring to the zone's layout that in several cases concentrates economic and logistic facilities aligned with connectivity infrastructure.

Regarding its location, Economic Zones are often built around multimodal infrastructure links, or their construction comprise its development from scratch. For example, an inland Logistic Zone might include an on-site rail intermodal terminal, truck depots, and even barge docks if near waterways. By allowing goods to transfer seamlessly between ship, rail, and truck, such zones enable modal shift to the most efficient transport option for each leg (rail for long-distance inland haul, truck for last mile, etc.), improving both cost and time efficiency.

Also, benefits steam from the spatial planning of zones where studies show that accelerating the beyond-the-gate transit of goods requires integrated logistics services and proper facilities (such as logistics zones) near transport facilities[17]. By co-locating third-party logistics providers, customs officials, and brokers inside the zone, bottlenecks are minimized and supply chain visibility increases.

In such a way, an Economic Zone's pro-business spatial setup improves time performance and reduces uncertainty in freight movement.

[17] World Bank. 2023. Connecting to Compete – Trade Logistics in the Global Economy.

Economic linkages across key stakeholders in the supply chain, referring to the clustering of services and economic activities that could potentially establish value chain linkages. Spatial concentration within zones can spur innovation and service integration that improve performance.

Many logistics zones host not just transport facilities but also supporting services like freight forwarders, customs brokers, equipment repair, and ICT providers. This creates a local ecosystem where multiple supply chain and logistics functions are coordinated on-site.

> For example, a shipment arriving to a port-centric logistics zone can go through customs clearance, storage, and value-added processing (like packaging or assembly) all within the same zone before onward distribution.

All the above considered, throughout this section, the concept of Economic Zones will be explored, highlighting how each case of application provides certain benefits that reduces the exposure of logistics schemes to major risks.

ABOUT ECONOMIC ZONES

As mentioned, economic zone refers to large-scale areas meant to serve one or multiple industrial activities by holding under the same geographical space the production, logistics and services required for the business operation.

These zones are designed to house production facilities, factories, logistic facilities and infrastructure, and support services facilities. Often, these tend to include defined areas with exceptional regulation and tax conditions to further incentivize strategic sectors. The scheme aside helps illustrate this arrangement.

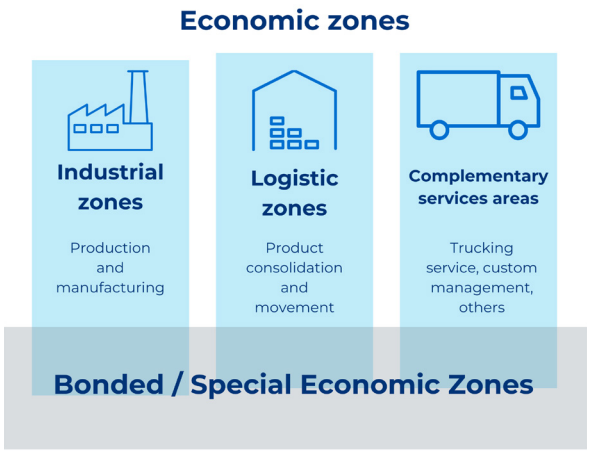


Figure 10. Components of Economic Zones

Not all economic zones comprise all three components (industry, logistics and services). Depending on the zone's conceptualization and planning, one can be totally leaned towards logistics, services, or industrial activity itself, or a combination of those in terms of space dedication. The land split among all three components derives from market assessments and feasibility studies that weight the environment and market landscape's conditions.

> The bundling approach towards economic activities and logistics help reduce complexity over logistic procedures and attract major players into a controlled environment, facilitating trade. In China, the clustering of export industries in Economic Zones like Shenzhen has led to high freight volumes and the creation of integrated logistics networks connecting factories to ports[18].

As stated before, an economic zone can hold areas with specific tax reliefs and regulatory conditions. This scheme receives the name of Bonded Zones or Special Economic Zones, with the former introducing custom tax benefits and the latter comprising a broader range of benefits including general taxes, social security benefits for hiring, among others. Their usage seeks to potentiate the economic zone by targeting strategic economic sectors through the enhancement of their competitiveness conditions in terms of regulation, labor force, sourcing, and market access.

Sector-wise, economic zones can adapt their offering to economic sectors by providing to them with infrastructure, superstructure and service tailored to their specific requirements. The existence of economic agglomerations such as technology in Asian regions or raw material extraction in Africa drive the configuration of economic zones around them, adapting their offering to each sector's particularities. The adaptation of an economic zones' infrastructure and service offering to the agriculture sector by means of dry-storage areas, or the provision of high speed and capacity internet connections for technology sector are just a couple of examples on how these zones can evolve into sector-specific areas.

[18] Upton, P. and Huld, A. 2022. Investing in Shenzhen: Industry, Economics, and Policy.

INDUSTRIAL ZONES

The first component of Economic Zones is Industrial Zones. These areas hold production facilities and/or yards for their construction, depending on clientele specificity. Space allocated can be split into heavy, medium, and light industries, depending on the industrial city's strategic aspirations and policies that may govern its implementation, as well as on the market landscape.

Its main objective consists of centralizing production activities, creating economies of scale and synergies by clustering industries within a unique ecosystem, seeking cost reduction and efficiency. Often, they are placed near transportation hubs to facilitate raw materials and finished product movement, reducing transportation costs and transit times. Industrial zones can hold heavy to light industries, being the former more capital intensive and involving high levels of raw material and utilities consumption, and the later more focused on end-consumers with complex and high-value vs. weight products.

The following figure helps depict this categorization. The prioritization of one type of industry over another in an Industrial Zone depends, largely, on their capacity to align with the existent industries to avoid competition and foster value chain alignment and partnerships.

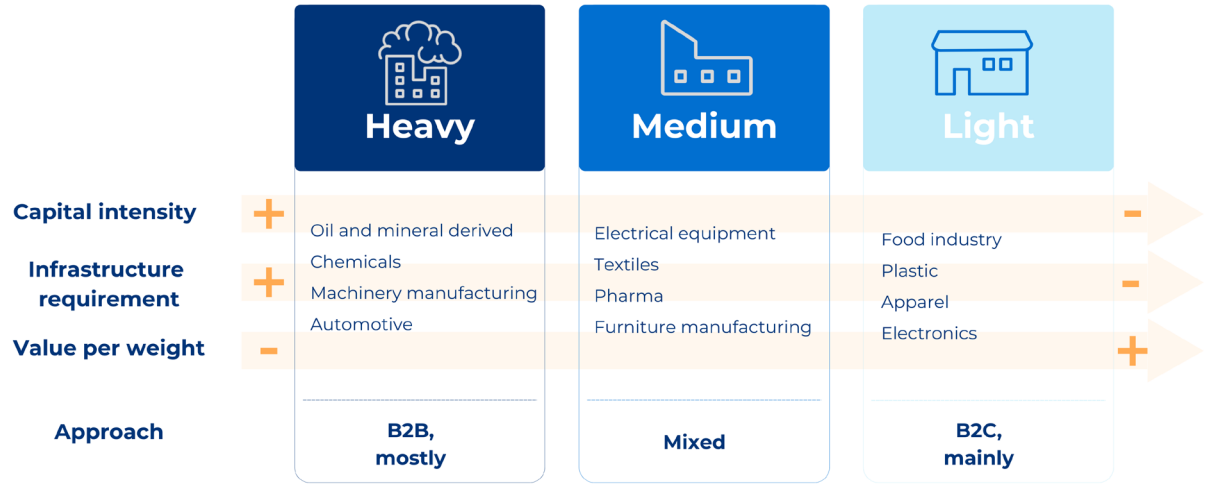


Figure 11. Industrial activities characterization

The idea of Industrial Zones helps address key challenges of the logistics sector by fostering clustering effects and promoting value chain integration. By concentrating manufacturers, suppliers, and logistics providers within a defined area, industrial zones reduce transport distances, improve inventory management, and enable shared access to logistics infrastructure such as warehouses, intermodal terminals, and customs facilities.

This clustering not only enhances efficiency and lowers logistics costs but also stimulates innovation and competition among service providers. Moreover, by offering targeted incentives to attract new players, particularly those aligned with local industries, Industrial Zones help support regional value chains, create synergies between production and distribution activities, and support more demand-responsive logistics schemes.

Some of the most notable cases of implementation are Asian. Aside from China's experience – the already mentioned Shenzhen's Special Economic Zone in China - other relevant case is Jubail Industrial City in Kingdom of Saudi Arabia, strategically located near to the Gulf with strategic access to maritime routes and to sourcing hubs[19].

Other relevant cases in the region are the electronics, biopharma, and advanced manufacturing industrial area within Incheon Free Economic Zone in South Korea strategically located near the international airport and the industrial segment of Dubai Industrial City in the United Arab Emirates holding sectors such as food production or automotive manufacturing.

[19]Source: Invest Saudi. 2021. The Economic Center in Jubail Industrial City - Investment Opportunity Scorecard.

LOGISTIC ZONES

A second component of economic zones refers to logistic areas, which comprise broad spaces with infrastructure and superstructure for logistics services, encompassing activities such as transportation, warehousing, packaging and distribution, customs clearance, and value-added services related to logistics activities. These areas aim to support supply chain functioning, from transportation to customer-related services, often leveraging on the use of digital tools for coordination.

In detail, the offering of a logistic zone can vary within two main components: logistics products and infrastructure. The first category refers to build-to-use superstructures for warehousing, storage and distribution or plots where companies can develop their own facilities based on their business particularities. These, dedicated to goods' storage and handling activities.

The second one, refers to infrastructure for transport facilitation. This category covers road infrastructure, ports, rail links and intermodal platforms. At last, the third category comprises facilities and services that add value to the zone, such as customs and free trade facilities, technology centers for warehousing management, business support centers and product-service areas.

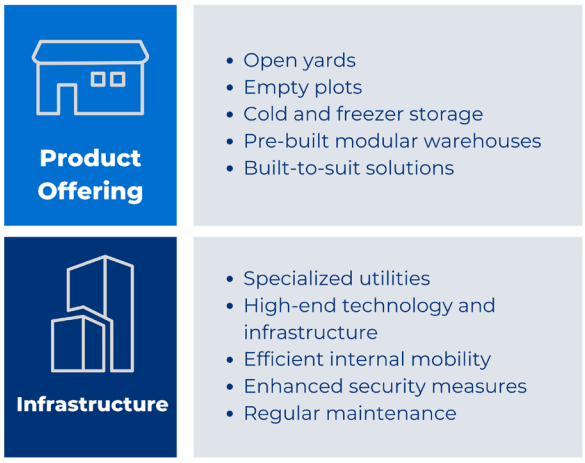
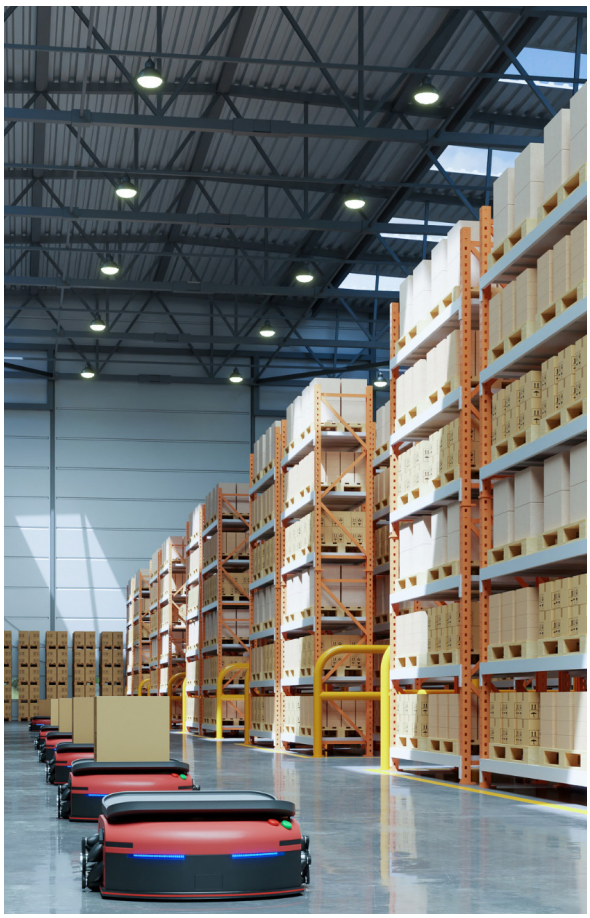


Figure 12. Logistic zones offering



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Logistics zones help enhance the performance and reliability of supply chains by consolidating transport, warehousing, and distribution activities into planned hubs.

By centralizing logistics functions, these zones optimize cargo handling, reduce transit times, and lower operational costs, thereby directly addressing inefficiencies that often plague fragmented logistics systems.

Additionally, logistics zones provide purpose-built infrastructure, such as bonded warehouses, cold storage, and intermodal terminals, which not only improve service quality but also mitigate risks related to cargo damage, customs delays, and supply chain disruption.

Some of the most notable cases of implementation are Asian, with notable initiatives in the United Arab Emirates and Malaysia, along with ongoing national-level bets that could change the ecosystem in the medium term in the Kingdom of Saudi Arabia. Nonetheless, other relevant are placed in Europe and North America, as the cases of Zaragoza and Southern California, respectively.

Regarding non-traditional players as African countries, some relevant initiatives are identified such as Moroccan case of Tangier Med Logistics Zone and the East African Logistics Zone in Mombasa, Kenya. Looking ahead, and weighting the existing disruptions in the logistic ecosystem, there's significant potential for other countries with lower logistic risks.

COMPLEMENTARY SERVICES AREAS

Supplementary to logistic and industrial areas, an economic zone usual holds a wide array of services is provided to support both the workforce and businesses, ensuring a smooth and efficient operational environment. Facilities for the labor force and visitors often include residential and commercial zones that cater to the daily needs of workers and their families.

These areas provide housing, shopping centers, healthcare facilities, educational institutions, and recreational amenities, creating a self-sufficient environment. Additionally, commercial services such as restaurants, hotels, and entertainment venues are available for visitors, business partners, and investors. By offering these essential services, economic zones enhance the attractiveness of the zone to foreign investors and multinational corporations by ensuring an efficient and integrated setup for their workforce.

Business-oriented, another element of complementary-services refers to regulatory and administrative support. One-stop-shop services offer centralized facilities where businesses can handle all legal, administrative, and compliance requirements, including obtaining permits, registrations, and meeting regulatory obligations, significantly reducing bureaucratic delays. Among them, financial services such as banks, insurance companies, and trade finance institutions are also available within the zone, providing vital support for day-to-day operations and large-scale investments. Also, human resource services centers focused on training and skills development ensure that the workforce is well-prepared to meet the evolving needs of the industries within the zone.

In addition, research and development (R&D) centers foster innovation, enabling businesses to keep the ecosystem competitive through advancements in technology, processes, and product development. At last, government and administrative offices are also strategically located to facilitate smooth interactions between businesses and regulatory bodies, ensuring compliance with local laws and policies. Together, these areas round up a well-functioning economic zone by streamlining business operations.

The case for Special Economic Zones

The case for Special Economic Zones Considering the current landscape and challenges for the logistics sector, the Economic Zones' market has evolved to a broader and ambitious offering that includes economic benefits. These special arrangements include financial, fiscal and non-fiscal benefits and receive the name of Special Economic Zones (SEZ).

The benefits granted cover, mainly, tax reliefs, administrative fees exemptions, benefits on customs for imported goods or exported goods' taxes, profit handling benefits, among others. These zones are especially attractive in a setting in which companies are being cautious and careful about their investment decisions.

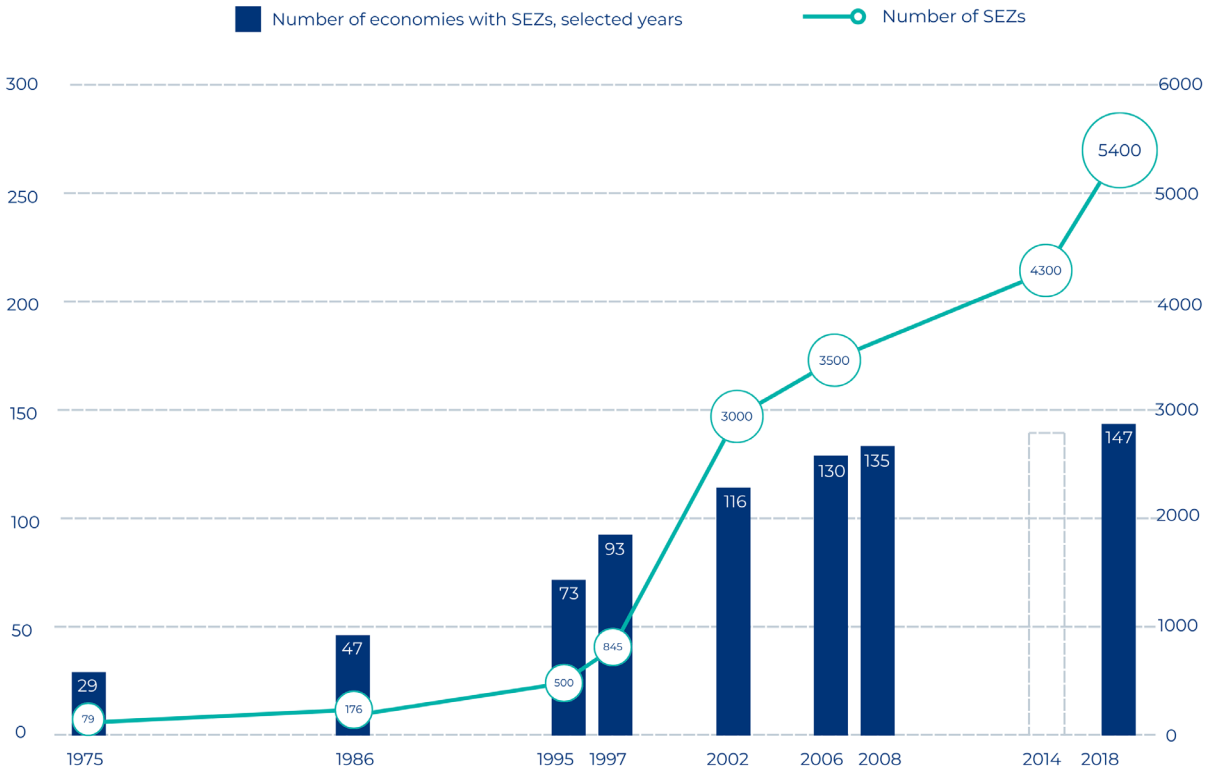

Figure 13. Evolution of Special Economic Zones worldwide (Thousands, 1975-2018)

In an Economic Zone, a SEZ is designated area where governments offer exceptional regulatory, customs and tax conditions for investors amid an ecosystem that gathers industrial development and logistics services enabling trade and business development. Said conditions attract both, local and foreign direct investment and boost industrial growth by attracting anchor companies that enable multiple value chains.

Its use has evolved consistently during the past 15-20 years surpassing in number the 5,000-line[20] and nowadays the scheme is used in multiple geographies being Asia the region that holds the largest number of them.

Even though its usage has skyrocketed during the past years, it seems the SEZ scheme is still worth it. Market perspectives indicate the business is expected to grow consistently in the short run in a global scale.

This could be explained by the benefits that offers to new tenants in terms of tax exemptions in a context in which changing regulation stress companies' profit outlook. Among them, exemptions and benefits range from workers' fees, deferred custom duties on goods that enter to the SEZ, corporate tax reductions, among many other possibilities depending on the country of implementation.

SEZs contribute to strengthening logistics performance by creating enabling environments that reduce regulatory barriers, attract investment, and integrate production and distribution activities.

By offering incentives such as tax breaks, streamlined customs procedures, and simplified regulatory frameworks, SEZs lower the cost and time associated with trade and logistics operations, making supply chains more agile and competitive[21].

SEZs often house a mix of Industrial Zone activities, Logistic Zones' areas and service-oriented businesses, promoting co-location synergies that improve coordination, and stimulate innovation within supply chains.

[20]Source: UNCTAD. 2019. Global competition for investment prompts a surge in special economic zones - Newsroom.

[21]Source: UNCTAD. 2019. World Investment Report – Special Economic Zones.

THE POTENTIAL OF AFRICA AS AN EMERGING PLAYER

Supply chain disruptions and shifting consumption patterns are leading to changes in companies' decision making over their value chain setup, logistics included. Amid these circumstances, new players have emerged as alternatives to traditional partners, due to their strategic location, isolation from geopolitical turmoil and to their sociodemographic and macroeconomic profile.

Africa holds significant untapped potential in the development of economic zones at all levels (industrial and logistics zones, as well as SEZs), with multiple countries positioning as strong partners in global and regional trade ecosystems. The continent's strategic geographical location, bridging major global shipping routes between Asia, Europe, and the Americas, offers natural advantages for transit, transshipment, and gateway trade. Coupled with abundant natural resources, fast-growing urban centers, and fast-paced economies, Africa presents fertile ground for the establishment of competitive Economic Zones.

As countries advance regional integration initiatives like the African Continental Free Trade Area (AfCFTA), Economic Zones offer an instrumental platform to boost manufacturing capacity, streamline logistics, and link African businesses more effectively to global value chains, unlocking new engines of growth.

In the field of Industrial Zones, African countries have several opportunities to deepen their participation in the ecosystem of industrial zones. This, supported on the industrial activity that has evolved during the past years[22], tied to the vast natural resources present in the continent – see graph below-. Similarly, other key leverages refer to Africa's sociodemographic dynamics, in which population growth outpace other regions in the world, and their geographic position close to multiple trade partners such as Asia and Europe.

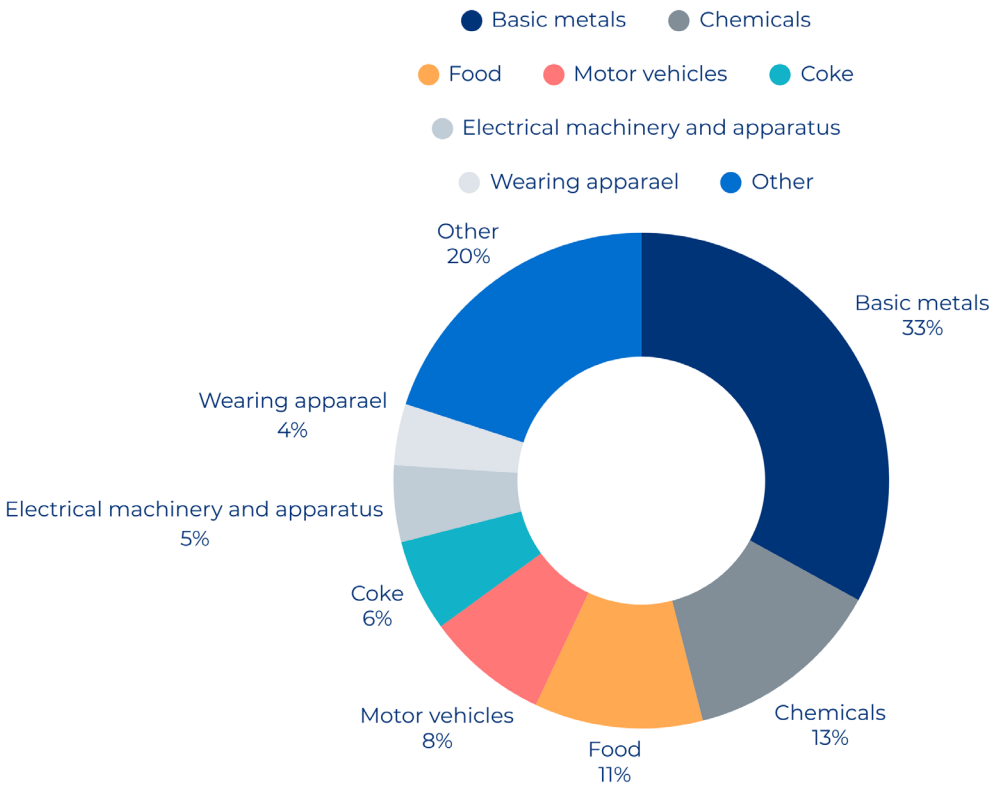

Figure 14. Sectoral distribution of manufactured goods exports (three-year average, 2019–2021)

Some initiatives have been already implemented in Africa. One of them refers to the industrial hub in Tangier Med Free Zone, launched in 1999, and that up to now has managed to attract more than 400 companies that coexist within it.

Among the sectors targeted, the automotive sector stands out, with the Renault Nissan Alliance industrial zone as the first production center in the northern area of Morocco. Other cases refer to Benin's Glo-Djigbé industrial zone dedicated to the textile industry, and initiatives in Togo around the wood sector leveraging on local natural resources.

Looking ahead, Africa has potential to multiply these experiences into a broader scope, nonetheless there are multiple challenges[23] that shall be tackled to enable Africa's industrial potential.

[22]Source: African Export-Import Bank. 2023. African Trade Report 2023 - Export Manufacturing and Regional Value Chains in Africa under a New World Order.

[23]Source: Infrastructure deficiencies supported on data of GSMA. 2023. Energy Challenges for Mobile Networks in Sub-Saharan Africa and skills gap supported on data of UNESCO. 2024. Education in Africa.

Infrastructure deficiencies	Utilities networks conditions, as well as transportation infrastructure remains a pending issue for African countries with rail networks unconnected and an unreliable electricity network with high costs.
Political environment and regulatory framework	Political instability growing into insecurity issues in multiple countries represent a risk for investors.
Skills gap	Sub-saharan region holds the highest rates of education exclusion, with UIS data reporting that about 60% of children between 15-17 ages are not in school. In the short and medium term this configures a limitation for the buildup of an educated and skilled workforce.
Market differentiation	Africa aiming to cut market share to competitors in the industrial zones' ecosystem implies being able to differentiate themselves from other regions that could be more experienced in the matter.

Regarding Logistic Zones, African countries have several opportunities due to their geographical position, with coastlines along maritime routes and proximity to emerging markets such as Middle East and Asia.

Similarly, their growing participation in the regional and broader international trade propelled by initiatives that derive from the African Continental Free Trade Area (AfCFTA) coupled with projects aiming to improve Africa's connectivity such as the regional transport corridors, place Africa as a player to consider.

Proof of the prior refers on their growing participation in commercial activity involving international partners. Growing e-commerce revenue for the past years – averaging a regional CAGR of 51% for 2017 to 2021[24]- in some of the African countries showcase how Africa is increasingly inserting itself into global markets, either from a supplier or customer side.

[24]Sources: ALG market study on multi modal logistic business parks and e-commerce hubs for an African country.

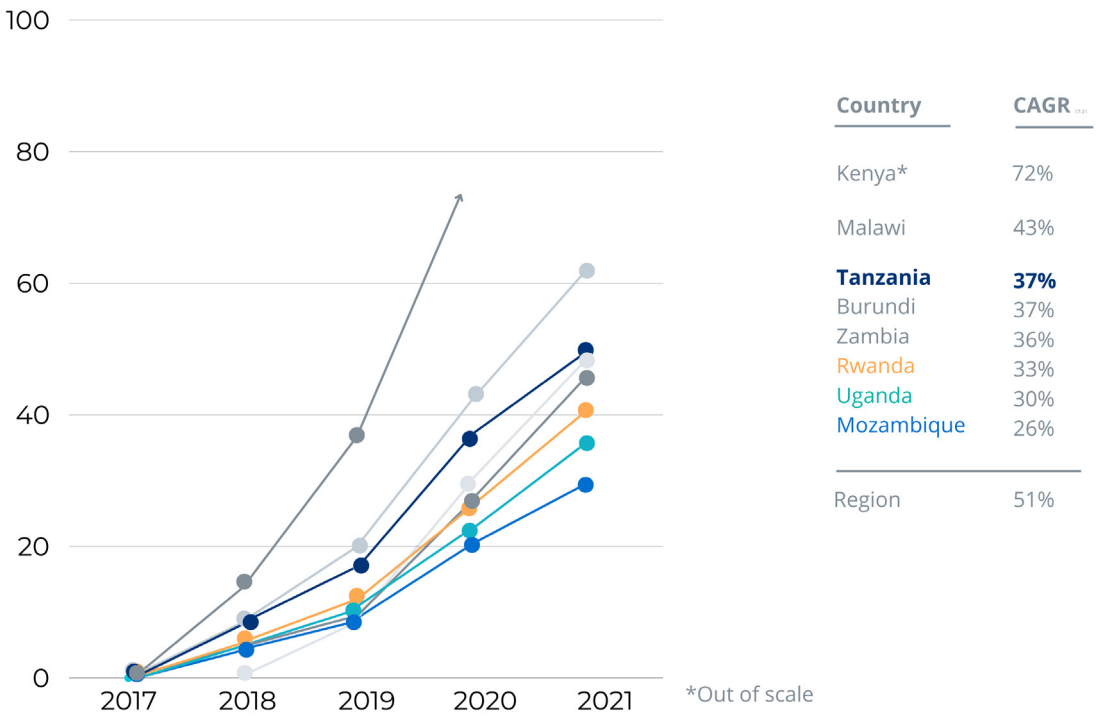

Figure 15. Regional E-commerce revenue evolution in Africa (% growth, 2017-2021)

On the other hand, another leverage for Africa's potential in the logistic zone market refers to the role agriculture plays in the economic setting. While multiple regions have witnessed a decline in agriculture employment – as share of total labor force –, Africa has managed to keep a stable 50% share of over total employment during the past years, as per statistics of AfDB[25].

The prior, added to the fact that multiple countries in Africa have food items and agricultural raw materials as main export product –see figure below[26]-, outline the potential of these activities.

While there are numerous examples of the implementation of logistic zones in African territory – in countries such as Kenya, Ethiopia, Djibouti, Morocco, Zambia, Egypt, among multiple others – the unleashed potential lies on how African economies are still not inserted in global trade as its share over global exports circles around the 3 per cent line[27].

[25]Source: International Trade Center. 2018. Africa-EU trade in agriculture products – setting the scene.

[26]Source: UNCTAD. 2022. Merchandise trade by product.

[27]Source: World Trade Organization. 2020. Trends in Trade, Africa.

Looking ahead, Africa has potential to multiply these experiences into a broader scope, nonetheless there are multiple challenges that shall be tackled to enable Africa's industrial potential.

Some of these hurdles include the growing need for a better infrastructure, a better cross-border governance, and the robustness of energy sources.

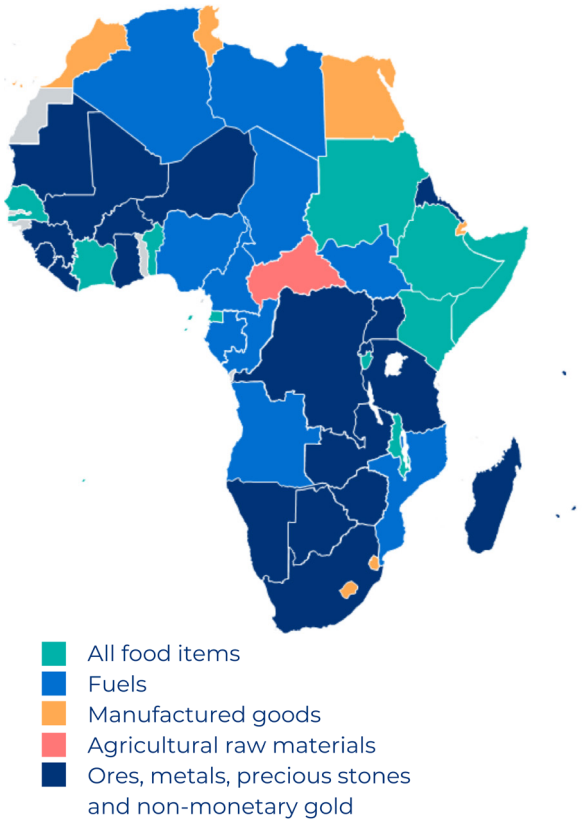

Figure 16. Main export products in Africa by country (2022)

Infrastructure deficiencies	Infrastructure defficiencies in terms of reliable roads, ports, railways, airports and intermodal links among them can limit the benefits of logistic in terms of cost reduction and competitiveness.
Cross border governance	Foreign affairs institutions remark the low governance stability in multiple cross-border areas, an issue that could limit regional trade and limit the capabilities for market attraction of logistic zones.
Energy costs	High operational costs driven by expensive and unreliable energy sources difficult logistics zones to attract and retain businesses.
Connectivity	Intercountry connectivity remains a challenge, with defficient cross-border governance and, infrastructure-wise, limitations to connect land-locked countries with sea ports. Dry ports provide an opportunity for that.

At last, Africa has not been immune to the advent of Special Economic Zones. Countries such as Nigeria, Kenya, and Ethiopia have established SEZs to leverage their geographic advantages, resources, and labor markets, facilitating export-oriented manufacturing and boosting local economies. In numbers, as of 2021, the Africa Economic Zones organization reported the existence of 203 SEZ plus 73 on-going projects for additional SEZ.

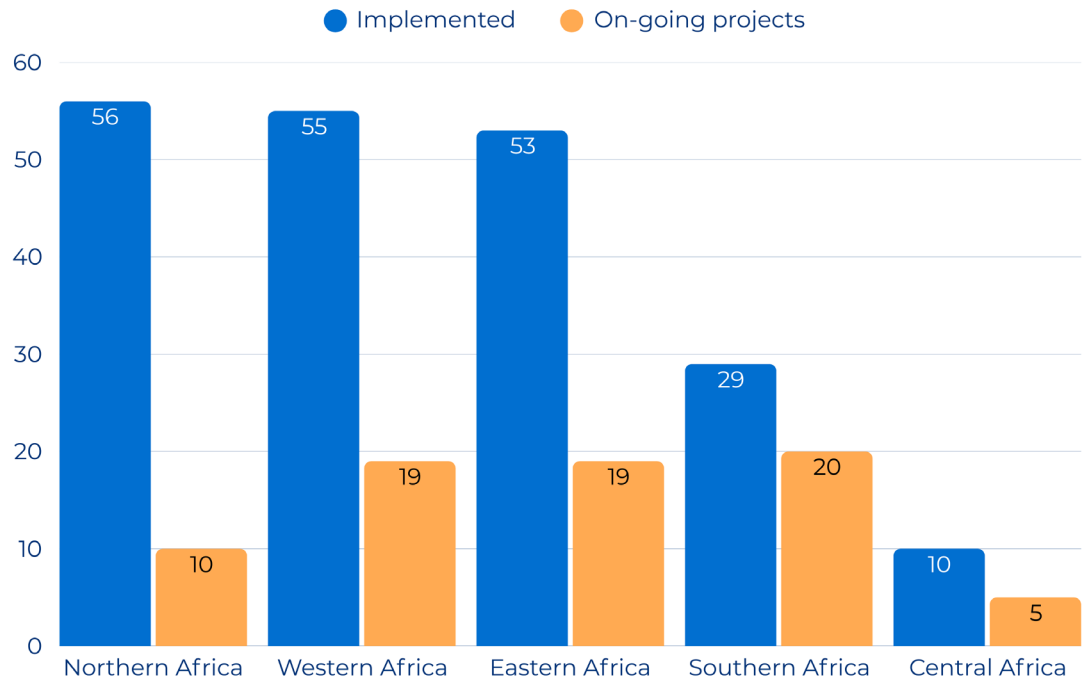

Figure 17. Landscape of SEZs in Africa (Number, 2021)[28]

[28]Source: African Economic Zones Organization.2021. Economic zones outlook.

At a regional level, Eastern African countries have implemented multiple SEZ profiting from port infrastructure and coastal closeness[29]. In detail, the two leading countries in the matter are Morocco and Nigeria, each representing 26 and 23% of SEZs in the region, respectively. In terms of their business model, more than the 50% of SEZ in the African region have been implemented under a PPP scheme while the 38% of the rest fall under a typical public model with total ownership and management in hands of a public entity.

Sector-wise, SEZs in Africa helped to support and promote traditional and long-standing economic activities. For example, in Ethiopia most SEZs target the agriculture sector, a highly GDP-relevant sector, boosting Foreign Direct Investment (FDI) – plus 41% FDI year-over-year after the launch of the first SEZ. On the other hand, others have helped land non-traditional sector into countries with favorable geographic conditions and enabling environment.

Looking ahead, Africa exhibits potential to dive deeper into the SEZ market, focusing on the potential benefits it could bring in terms of export dynamization, labour market enhancement and sectorial modernization. Nonetheless, there are major challenges that it must overcome. These are related to governance and to the economic integration.

Institutional coordination	ALG analysis indicate that pushing forward SEZ initiatives imply a high grade of complexity derived from institutional articulation. SEZ benefits imply authorization from multiple government entities plus its implementation represents major coordination challenges between authorities and the SEZ management itselft.
Integration for economic impact	Data from the Africa Economic Zones Organization reveal that at 2021, about 38% of SEZ in Africa reported an export annual growth less than 5%. These estimates reveal the need to articulate local value chains with SEZs ecosystem to generate a major impact on exports.

[29]Source: ALG market assessment.

THE FUTURE AHEAD

The current macroeconomic and geopolitical landscape presents major challenges long-lasting established trade systems and value chains. By connexity, the logistics sector has had to adapt, thus its outlook will largely depend on the sector's capacity to innovate and mitigate risks. Risks, related to tariff schemes, sudden regulatory swifts, economic slowdown, among others. On top, parameters as shifting political conditions, new consumption patterns and regulatory frameworks are increasingly influencing the companies' decision towards sourcing and trade.

In this context, the concept of Economic Zones has emerged – from some years now – not only as an enabler of economic growth but also as a scheme that fosters resilience and efficiency for logistics. The cases of **Industrial Zones**, that clusters and centralizes complementary economic activities streamlines the transport of goods, or **SEZs** that simplify custom duties procedures through a business-friendly regulatory framework provide benefits to the logistics activity.

In said context, **new players** have a steep way ahead. Asian countries have consolidated themselves through top-notch infrastructure and specialized hubs targeting sectors as technology. Nonetheless, the current landscape – far from being stable – sets the conditions for new entrants. In particular, the case for African countries pictures a region that has the capability to leverage on a favorable sociodemographic profile and strategic positioning, absent from international turmoil.

Nonetheless, to insert themselves in sectorial supply chains, African countries face several obstacles that shall be surpassed. Some of the most relevant encompass the consolidation of a reliable transport and utilities' infrastructure and the consolidation of a robust regulatory framework and governance schemes at a national and regional level. However, major projects onto said direction such as the regional corridors, or the consolidation of coordination institutions seem to pave the way for a positive medium-term.

Other sources consulted:

- UNCTAD, 2024. Trade and Development Report.
- World Economic Forum, 2024. Logistics Growth Trends.

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