Center for Geopolitics | JPMorganChase

Helping Clients Navigate Global Challenges

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Winners in the Whirlwind:

Ten Geo-Economic Success Stories of 2025

JPMorganChase

Those Who Caught The Wind

Ten geo-economic booms from around the world reveal a simple but powerful lesson: in an age of geopolitical turbulence, volatility can be turned into advantage. Today's so-called "polycrisis"—a convergence of war, energy shocks, fractured supply chains, and accelerating technological rivalry—has not affected all nations equally. **While much of the world shifted into defense crouch, a few countries discovered that their existing strengths had become unexpectedly valuable, giving them the momentum to turn turbulence into growth.**

Drawn from a review of more than thirty candidates, (but excluding the world's two largest powers, the U.S. and China), these are the winners of a turbulent year. **These nations' momentum reflects not only where they sit on the map but how quickly they aligned political will, capital, and industrial capacity when the moment demanded it.** In each case, the boom wasn't granted—it was assembled.

Across these stories, certain patterns emerge. Each of these booms came from the same sources: energy, defense, AI, or advanced manufacturing. South Korea is riding a surge in demand for artillery and LNG transport tankers. Poland has vaulted from vulnerable frontier state to the workshop of Europe's weapons rearmament boom. Morocco, drawing upon its location just across the Mediterranean and skilled labor force, is becoming central to Europe's next-generation automotive supply chain. Again and again, structural strengths met decisive action—and occasionally, a bit of well-timed luck.

Together, these booms point to a broader truth: **economic opportunity in geopolitics rarely emerges in calm waters.** It reveals itself in the storm—and rewards those who adjust their sails quickly enough to meet it. **These are the places that caught the wind.**

- **Boom 1:** Moving What Matters: South Korea's LNG and Defense Industrial Base Boom
- **Boom 2:** Land and Human Capital: Malaysia's Data Center and OSAT Boom
- **Boom 3:** Critical and reliable: Australia's minerals base
- **Boom 4:** Poland: Arsenal of democracy (and NATO)
- **Boom 5:** Drone Diplomacy: Türkiye's Strategic Defense Export
- **Boom 6:** Norway's pipeline power
- **Boom 7:** Brazil's Bounty: Natural resource export powerhouse
- **Boom 8:** Qatar doubles down on LNG
- **Boom 9:** The UAE as the Global AI Race's Desert Command Center
- **Boom 10:** Morocco as Europe's Car Factory Next Door

Boom 1

Moving What Matters: South Korea's LNG and Defense Industrial Base Boom

South Korea has benefited from two overlapping global shifts: **renewed demand for military equipment and a boom in liquefied natural gas (LNG) shipping.** The war in Ukraine and the need to modernize European militaries created a new export market for Korean artillery, tanks, rockets, and trainer aircraft. At the same time, Europe and Asia have scrambled for new LNG supplies after disruptions to Russian energy.

On defense, Korean industry is led by three major firms:

1. **Hanwha Aerospace**, which produces artillery systems, multiple rocket launchers, and armored vehicles;
2. **Hyundai Rotem**, which manufactures the K2 Black Panther main battle tank; and
3. **Korea Aerospace Industries (KAI)**, which produces trainer jets and light-attack aircraft, including the FA-50 that has seen rising demand in Europe and Southeast Asia.

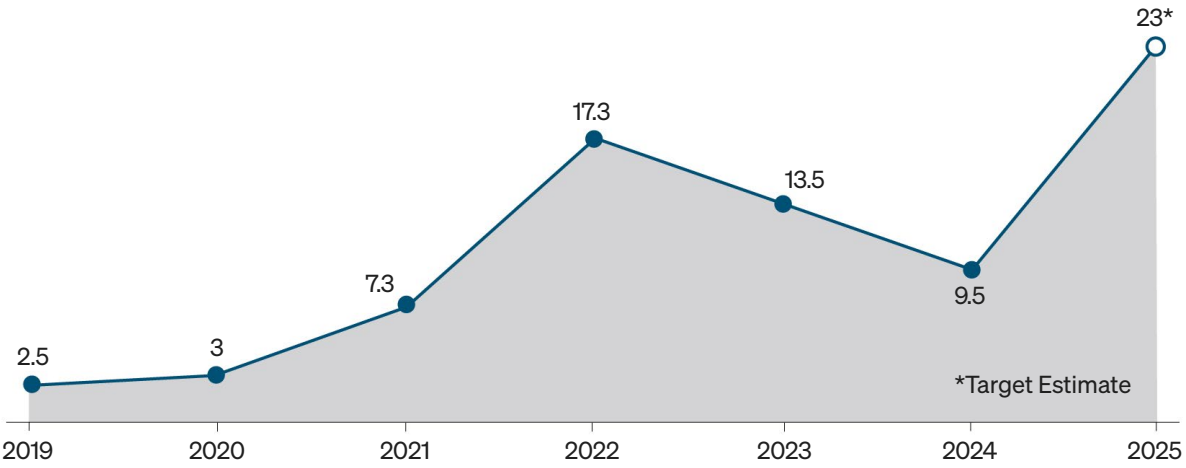
In terms of LNG shipbuilding, three Korean firms dominate both nationally and globally,

1. **HD Hyundai Heavy Industries**, known for building large next-generation LNG carriers and a wide range of tankers, container ships, and offshore vessels.
2. **Samsung Heavy Industries**, recognized for executing major LNG-carrier orders worldwide and for its advanced, high-value offshore and specialty vessels.
3. **Hanwha Ocean (formerly DSME)**, renowned for constructing some of the world's largest LNG carriers, including Q-Max class ships, and for its deep engineering expertise in LNG and other high-complexity vessels.

The scale of foreign demand for Korean defense products is unusually large for a country outside the United States and Europe. **Poland alone has signed over $10 billion in contracts** for K2 tanks, K9 howitzers, and FA-50 aircraft, with deliveries running into the late 2020s. Romania is negotiating for K9 systems, while Norway, Estonia, Finland, and Egypt have all purchased or signaled interest in Korean artillery. **As a result, South Korean defense exports are surging, making South Korea the 10th-largest exporter globally, and the largest in Asia other than China.**

South Korea's growth in arms exports

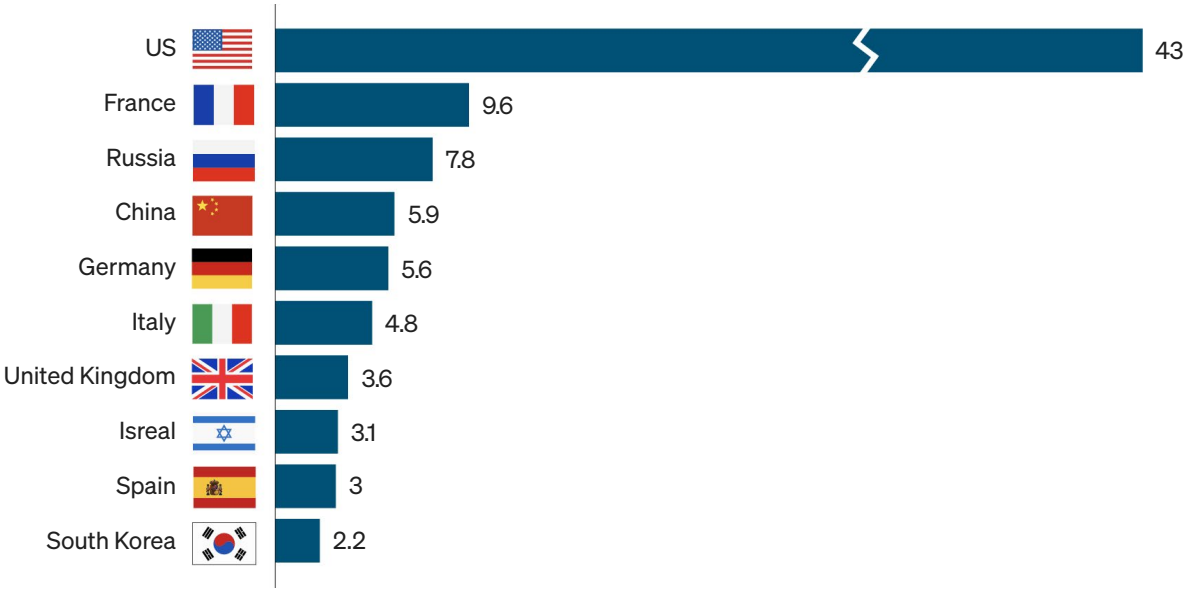
(Unit: US billion dollar)



Source: Defense Acquisition Program Administration

World's biggest arms exporters from 2020 to 2024

(Unit: %)



Source: Stockholm International Peace Research Institute

On the energy security front, Korean shipyards, led by companies like HD Hyundai Heavy Industries and Samsung Heavy Industries, have dominated the construction of the **highly-specific tanker ships needed to transport LNG**, which has exploded in global demand in recent years. Korean yards hold most of the global LNG shipbuilding order book, supported by Qatar's massive gas expansion in its North Field. **These tankers require specialized engineering that only a handful of countries can produce at scale**, giving Korea a competitive advantage that aligns with today's energy security concerns.

A prototype "liquid hydrogen tanker" from HD Hyundai. Liquid hydrogen is in growing demand to cut emissions in heavy industry and transport. Unlike LNG, which is stored at about –162°C, liquid hydrogen needs to be kept at a much colder –253°C and is harder to contain. Future hydrogen tankers will rely on ultra-advanced, vacuum-insulated cryogenic tanks still being prototyped. South Korea's LNG-dominant shipbuilders, drawing on their LNG tanker expertise, are positioning themselves to adapt their know-how to build these liquid hydrogen tankers and establish similar market dominance. Image Source: HD Hyundai.

South Korea

By the Numbers:

- 31 of the 41 new LNG carriers delivered globally in 2023 were produced by South Korean companies. This represents 75% of the total deliveries for that year.
- 295%—the surge in 2024 operating profit of HD Hyundai, South Korea's largest shipbuilder.
- 31%—the amount that Korea's major defense companies boosted their combined arms revenues last year.

What to Watch:

- If demand for LNG carriers drops as Europe stabilizes its gas supply or shifts toward renewables, Korean shipyards could face a sudden gap in orders. Defense exports are also concentrated in a small number of contracts; if European rearmament slows, South Korea may need to find new buyers quickly.
- A prolonged NATO and Indo–Pacific rearmament push could lock in multi-year demand for Korean artillery, armored vehicles, and trainer jets. The beginning of a long-term submarine deal with the U.S. was signed in November. An expansion into an even larger, tri-lateral AUKUS-style program could further bind the Euro–Atlantic defense industrial base to the Indo-Pacific. Meanwhile, deeper U.S.–Korea defense industrial cooperation could elevate Seoul to the world's top tier of arms exporters.

Boom 2

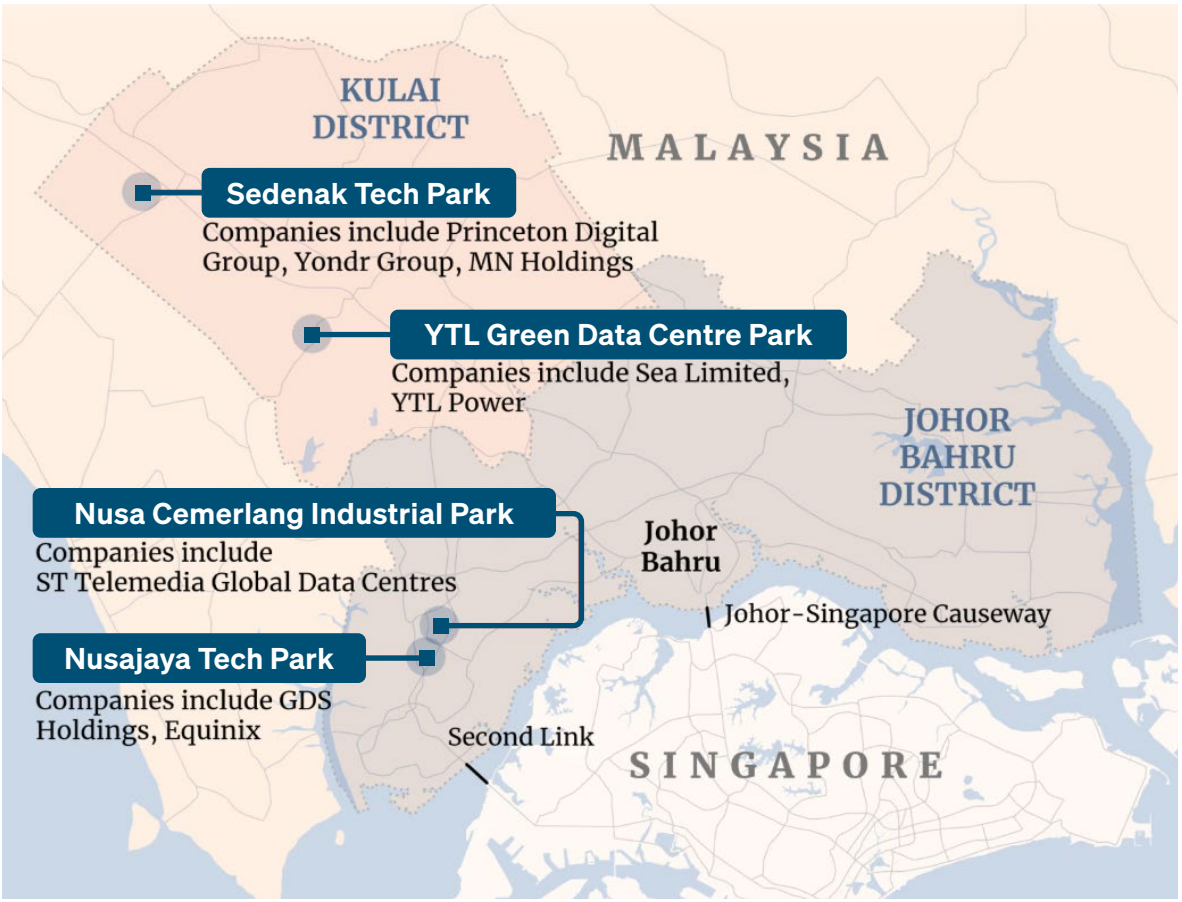
Land and Human Capital: Malaysia's Data Center and OSAT Boom

Malaysia has emerged as one of Southeast Asia's most important technology hubs, attracting investment in both advanced semiconductor manufacturing and large-scale data infrastructure. Its rise reflects a mix of geography, cost competitiveness, and policy decisions. **Malaysia sits directly across from Singapore, offers lower land and energy costs, and has accelerated regulatory approvals for strategic industries.** These advantages have positioned Malaysia as a natural landing spot for companies seeking **space, power, and supply chain resilience** at a time when global demand for chips and cloud computing is surging.

Kuala Lumpur has built one of the world's largest bases for packaging and testing semiconductors, known as **OSAT (outsourced semiconductor assembly and test)**. This stage of chip production involves cutting silicon wafers into individual chips, wiring them to substrates, and conducting final quality checks before they are shipped to device-makers. Malaysia's leadership in this area, dates back nearly fifty years, giving it a deep talent pool, specialized supplier networks, and long-standing relationships with global firms. Companies such as Intel, Micron, Infineon, ASE, and Texas Instruments operate extensive facilities in the country. Intel alone has committed roughly $7 billion for advanced packaging capacity in Penang and Kulim, reflecting Malaysia's central role in the AI-era chip supply chain.

The second engine of growth is the **rapid build-out of data centers**. As Singapore has restricted new data center construction because of land and power constraints, cloud providers have expanded just across the border into Johor, **where Malaysia offers large tracts of land, cheaper electricity, and faster approvals**. The Malaysian government has reinforced this trend with the **Green Lane Pathway**, a fast-track process that shortens timelines for securing environmental clearances, grid interconnection, and operating permits. Meanwhile, Singapore and Malaysia launched the **Johor–Singapore Special Economic Zone** (SEZ) in 2024, integrating investment incentives, logistics, and cross-border talent movement.

Data centres in southern Johor



Source: Data Center Map, Google Maps
Infographic: Rafa Estrada

Malaysia

By the Numbers:

- 13%—Malaysia's share of the global OSAT market, meaning Malaysia handles roughly **one in every eight** packaged chips worldwide.
- $39 billion dollars—Approved investment for new data centers in Johor as of mid-2025, one of the largest multi-year data center pipelines in Southeast Asia.
- $1.5 billion dollars—Micron's investment in advanced memory packaging, reinforcing Malaysia's role in AI-related semiconductor components.

What to Watch:

- Data centers require enormous amounts of electricity and water. If Malaysia's grid and water systems cannot expand at the same pace as hyperscale construction, some projects may face delays or downsizing.
- Malaysia could break into higher-value semiconductor activities—such as advanced packaging or substrates—lifting its position in the global chip hierarchy.
- Because Malaysia's OSAT industry relies on precursor chip parts for packaging, export controls put in place by third countries like the U.S. can have an outsized impact. Tighter U.S. or Chinese export restrictions could affect the inflow and outflow of these chips packaged in Malaysia.

Boom 3

Critical and reliable: Australia's minerals base

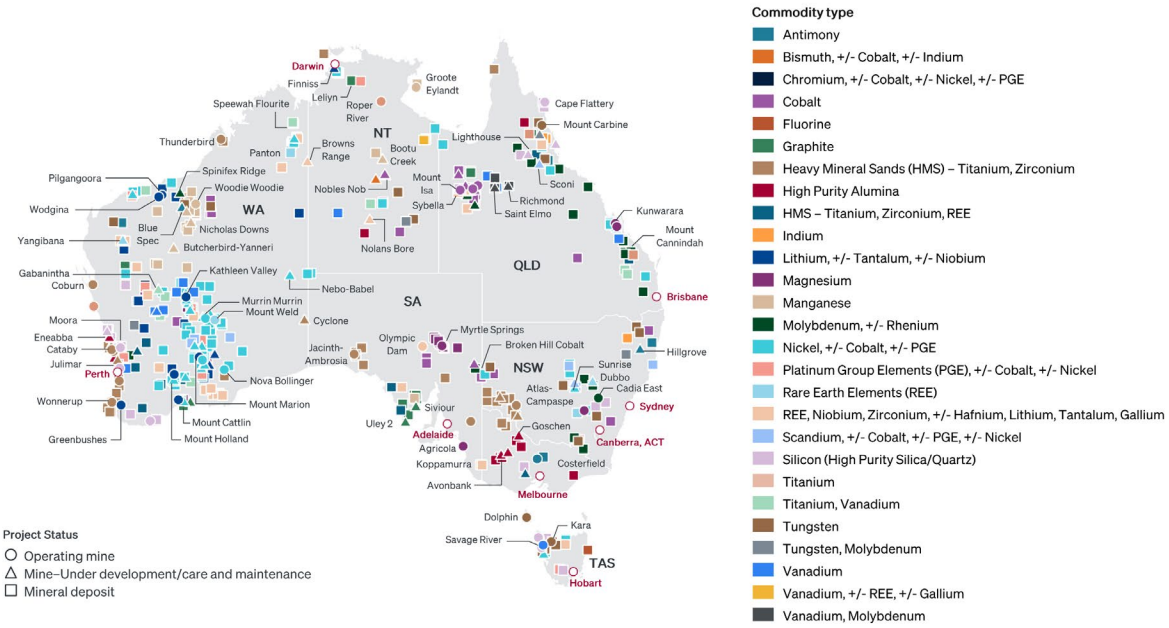
Australia has quietly become one of the most important countries in the global energy and technology transition. *(See our CfG energy report for a deeper dive.)* A decade ago, its export profile was dominated by iron ore, coal, and LNG. Today, thanks to a rare alignment of geology, geopolitics, and alliances, **Australia sits at the center of the world's scramble for critical minerals**—the inputs that power electric vehicles, batteries, renewable-energy systems, and advanced defense technologies.

Australia produces nearly half of global lithium supply, ranks among the world's leading producers of iron ore, nickel, cobalt, manganese, zircon, and other important minerals, and maintains a diversified resource base across commodities essential for batteries, renewable energy, aerospace alloys, and defense technologies. Combined with consistent mining regulation and decades of extraction expertise, few countries match Australia's blend of geological abundance and institutional reliability.

Rising tensions between China and the West reshaped the global mineral market almost overnight. Washington and Brussels began looking for "friendly" suppliers of the minerals that China dominates. **Australia, a strong U.S. ally with a massive mineral endowment and stable governance, suddenly became essential.**

This shift coincided with the clean-energy boom. **As EV sales surged globally, demand for lithium exploded—and Australia, with its extensive hard-rock deposits, was already the world's largest producer.**

Western automakers and battery manufacturers—from South Korean cathode makers to U.S. firms hunting USG-compliant supply—increasingly rely on Australian supply.



Source: Commonwealth of Australia (Geoscience Australia) 2025
Note: Mineral deposits included contain reported critical mineral resources
Background image: 1:1 million scale Surface Geology of Australia (2012) with background magnetics (greyscale, 0.5 vertical derivative of total magnetic intensity)

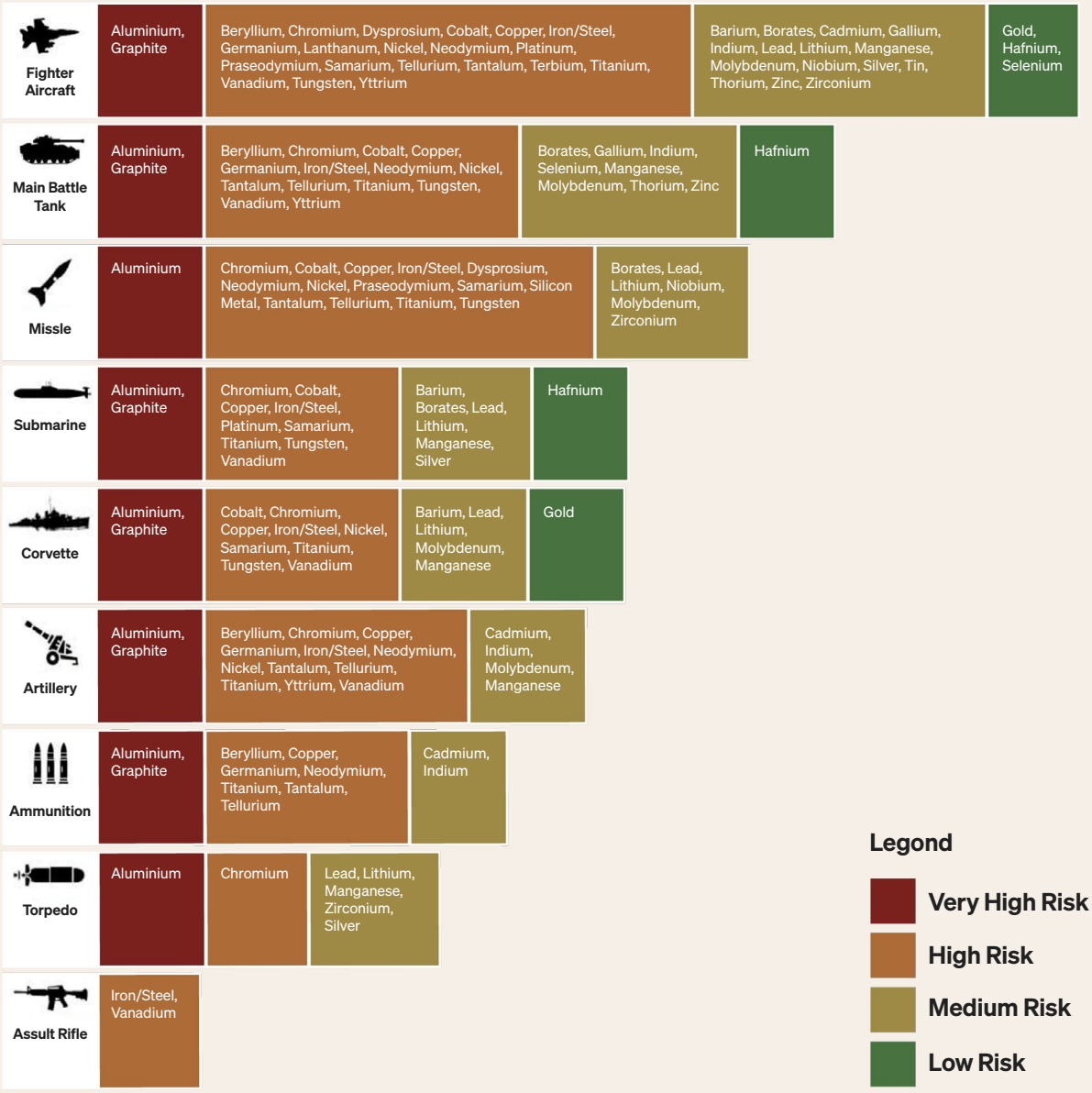
Canberra has moved aggressively to translate geological advantage into strategic leverage. **It created a $4 billion Critical Minerals Facility** to finance mining and processing assets; signed supply-chain security agreements with the Japan, India, and Korea; and issued national-interest restrictions on certain Chinese investment in strategic mineral assets.

In October 2025, the U.S. and Australia signed the **Critical Minerals Framework**, a new agreement designed to strengthen bilateral cooperation on minerals. The framework leverages existing policy tools, including strategic stockpiles, and introduces safeguards to protect key commercial assets from adversarial acquisition. It also establishes price-support mechanisms and targeted financing to accelerate mining, processing, and recycling projects for priority commodities in both countries.

At the same time, the Australian government has pushed for more ***downstream processing***—refining lithium into battery-grade chemicals rather than exporting raw spodumene—in order to capture more of the value chain that Australia historically ceded to China.

Why it matters

Supply risk for critical raw materials in military applications



In December 2024, NATO published a list of 12 “defense-critical raw materials” essential for the Allied defense industry. NATO leaders are pushing member states, including the United States, to secure multiply supply chains for these minerals as well as contingency plan for any disruption. Image Source: NATO.

Australia

By the Numbers:

- ~48–50%—Australia's share of global mined lithium supply in 2024. The vast majority of this production is in the form of spodumene concentrate (a hard-rock lithium ore).
- $20 billion—record value of Australian lithium exports in 2022–2023
- $4 billion—Size of the Australian Government's Critical Minerals Facility, designed to finance mining, processing, and strategic midstream projects
- 95-98%—share of Australia's raw lithium exported to China for refining, underscoring the significant gap in domestic value-added processing

What to Watch:

- The biggest vulnerability in Australia's critical-minerals boom is not extraction but **processing**. Today, China refines more than 80% of the world's lithium and still processes the overwhelming majority of Australia's spodumene into battery-grade chemicals. As long as this midstream bottleneck persists, Australia cannot fully position itself as a secure, NATO-aligned supplier of battery materials—because its minerals must still pass through the very chokepoint Western policymakers are trying to avoid.
- Lithium-price volatility adds further risk: a prolonged downturn could freeze financing for new mines and midstream facilities. Heavy dependence on Chinese buyers makes revenues vulnerable to shifts in China's EV demand or to bilateral political tension.
- Western automakers and battery firms searching for China-independent supply chains could increasingly anchor themselves in Australia. Meanwhile, a large standing partnership with the EU or the U.S. focused on developing processing infrastructure could cement Australia as a NATO-default lithium source.

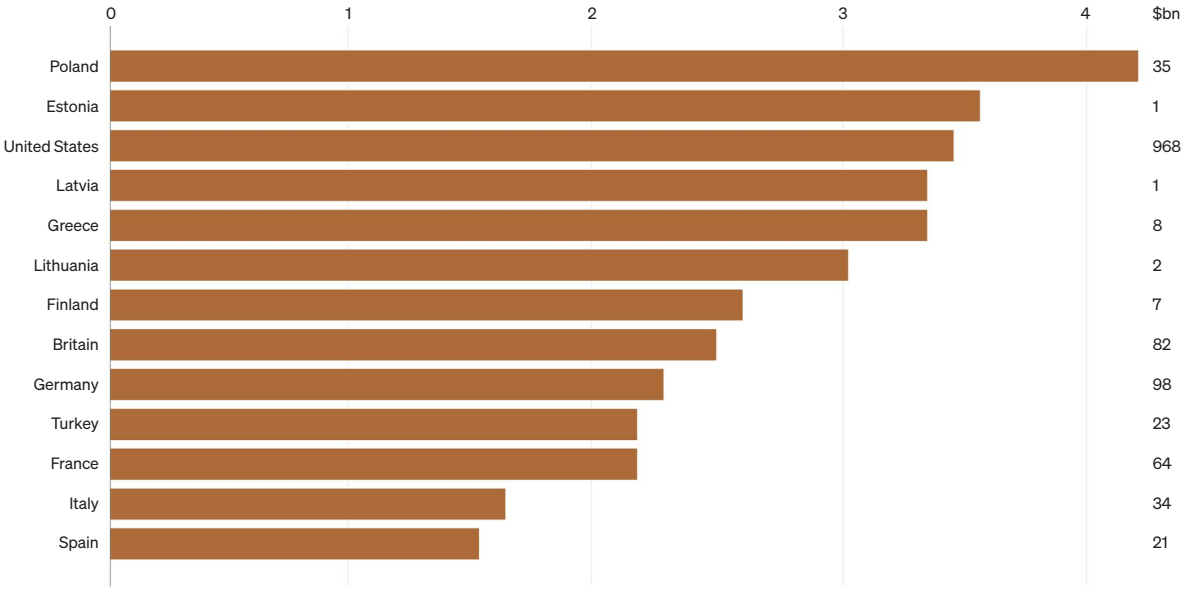
Boom 4

Arsenal of democracy (and NATO): Poland's defense production leap

Poland has become one of Europe's fastest-rising defense manufacturing hubs, driven by geography and deliberate state strategy. Sitting on NATO's eastern flank next to Ukraine and Belarus, Poland treated the Russian invasion as an existential threat and launched one of the most aggressive rearmament programs among Western democracies. **Defense spending is rising to roughly five percent of GDP in 2025, the highest in NATO.**

Leading from the front

NATO members' defense spending, % of GDP
2024 estimate, selected countries



Source: The Economist, 2025 & NATO

At the center of this build-up is **Polish Armaments Group (PGZ), Poland's state-owned defense conglomerate overseeing more than fifty subsidiaries across ammunition, armored vehicles, shipbuilding, missiles, and electronics**. PGZ is expanding rapidly, with the most dramatic growth in artillery production, armored-vehicle lines, and naval yard revitalization. Exports remain a minority share, but are growing: PGZ's Piorun air-defense missile has been sold to Norway, Estonia, Latvia, Sweden, Moldova, and the United States.

Policy pushes are accelerating this industrial expansion. The **Special Act on Defense Investments** (2025) fast-tracks permitting for defense facilities and shortens construction timelines. These reforms support PGZ's rapidly growing order book. In 2024, PGZ signed contracts worth approximately $30 billion in a record year for the company, primarily focused on land systems like the Krab howitzer and K9 support vehicles.

Boosting domestic production of 155mm artillery shells has also become a top priority for Prime Minister Donald Tusk's government as Poland positions itself as a critical defense supplier in Europe. Since Tusk took office in 2023, **annual output has surged from just 5,000 shells to an expected 30,000 this year**, with an ambitious goal of reaching 180,000 shells per year by 2027—a sixfold increase. This expansion is driven by significant investments from PGZ, including $31.2 million earmarked for Nitro-Chem to acquire new production lines.

The 155mm caliber artillery shell is the NATO standard, and ramping up its output will significantly enhance supply among allied forces. Ukraine, though not a NATO member, relies heavily on 155mm shells due to its dependence on Western military aid and equipment and will also serve as a key 155mm market.

Poland

By the Numbers:

- 4.7 % of GDP—Poland's 2025 defense spending, the highest in NATO and above the United States' ~3.4%.
- $664.80 million—financing from the Polish government for PGZ to build three new ammunition factories to meet NATO and Ukraine demand.
- 180,000 shells per year—Projected PGZ output by 2027, a sixfold increase from 2023. For context, the U.S. Army has a goal to produce 480,000 shells per year.
- 216,000—the number of Poland's active-duty military personnel, making it the largest in Europe and the third-largest in NATO , after the United States and Türkiye.

What to Watch:

- The European Union limits state aid to government-owned companies, and future EU pressure could restrict subsidies to PGZ as a company which exists largely as a subsidiary of the Polish military.
- A future EU "Defense Readiness and Production Compact" could channel billions in subsidies to Polish artillery and ammunition factories, making Poland the EU's primary munitions hub.
- A future Ukraine reconstruction agreement that prioritizes Polish industrial zones as the logistical gateway could supercharge demand for Polish armored vehicles and engineering equipment.

Boom 5

Drone Diplomacy: Türkiye's Rise as a Mid-Tier Defense Power

Türkiye has leveraged a rare combination of geography, industrial policy, and entrepreneurial defense firms to become one of the world's most influential mid-tier military suppliers. **Its rise began well before the Ukraine war, but the surge in global demand for affordable, rapidly-delivered weapons systems accelerated Türkiye's ascent.**

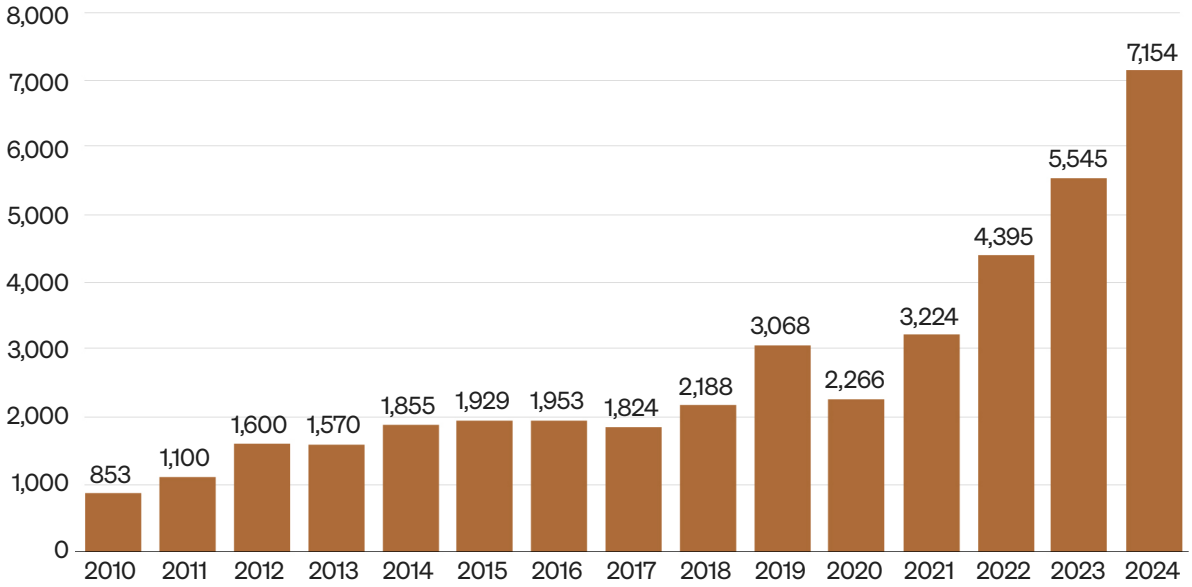
The centerpiece of Türkiye's defense surge is **Baykar**, the privately-owned manufacturer of the TB2 and AKINCI drones. **Türkiye's TB2 drone became globally recognized after its use by Ukraine, Azerbaijan, and several Middle Eastern militaries, where it offered precision-strike capability at a fraction of the cost of Western systems.** Because the TB2 is inexpensive, versatile, and fast to deliver, it attracted buyers across Eastern Europe, the Gulf, North Africa, and Southeast Asia.

Taken together these exports have become a form of **"drone diplomacy," deepening Türkiye's relationships with Ukraine, Poland, Azerbaijan, the Gulf states, and parts of Africa.**

Pictured above: Baykar's best-selling TB2 drone is featured at a ceremony alongside Polish defense officials following Baykar's final delivery of Poland's new TB2 drone fleet in 2024. In 2021, the Polish military signed a procurement contract for the Turkish drones worth an estimated $270 million dollars. Image source: Baykar and DefenseNews

Beyond drones, Türkiye has built a broader ecosystem anchored by major state-linked firms. Turkish Aerospace Industries (TAI) is developing the KAAN fifth-generation fighter project which seeks to break into a fighter jet industry long dominated by legacy American, British, Swedish, and French firms.

Türkiye: defence and aerospace exports, 2010-24 (USD millions)



Source: Secretariat of Defence Industries - Savunma Sanayii Başkanlığı.

Türkiye

By the Numbers:

- 1.8 billion dollars—Baykar's export revenue in 2024, representing about ninety % of the company's total income and making it one of the most export-dependent drone manufacturers in the world.
- 30+ countries—Number of militaries operating TB2 or AKINCI drones, giving Türkiye one of the broadest global drone customer bases after the United States and Israel.
- $7.1 billion—Türkiye's defense exports in 2024, up from $5.5 billion in 2023.

What to Watch:

- Like any drone system, Baykar's drone dominance is vulnerable to counter-drone technologies that are spreading rapidly. If adversaries deploy more effective jamming, air defenses, or autonomous interceptors, sales of the TB2 could slow until newer models scale up.
- The KAAN fighter program requires sustained financing, engine partnerships, and reliable access to advanced materials; delays in any of these areas could jeopardize Türkiye's bid to enter the top tier of global aviation producers.
- A major co-production deal with a Gulf or East Asian country for next-generation UAVs or the KAAN fighter could give Türkiye foreign capital and markets large enough to scale into a genuine aerospace competitor.

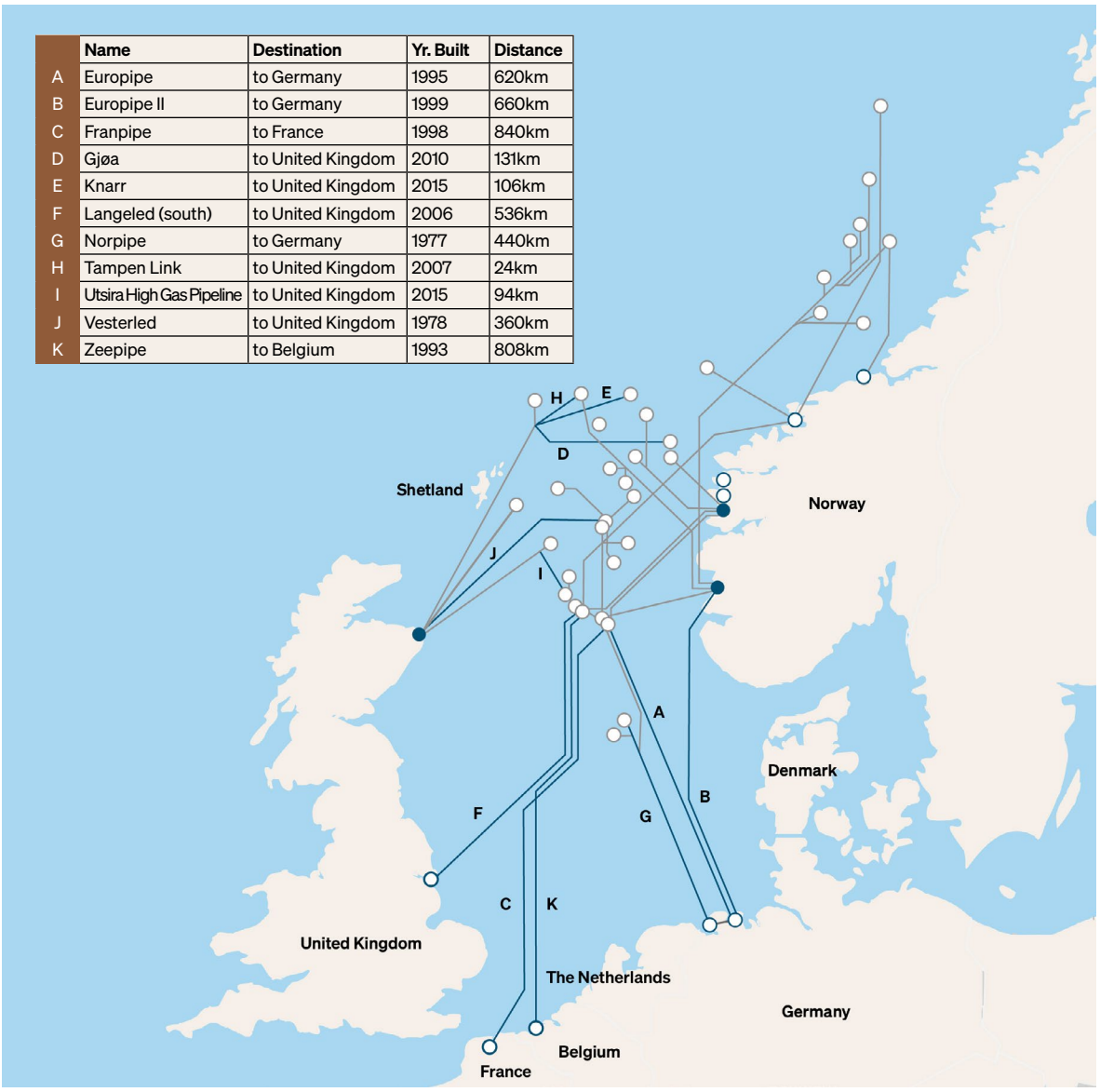
Boom 6

Norway's pipeline power

Norway has become Europe's indispensable natural gas supplier, a role that solidified after Russian pipeline flows collapsed in 2022. With vast offshore reserves, a predictable regulatory system, and one of the world's most sophisticated undersea pipeline networks, Norway was the only producer capable of quickly increasing volumes at the scale needed to stabilize Europe's energy system. **Its 8,800-kilometer subsea pipeline grid** links major offshore fields such as Troll, Oseberg, and Ormen Lange directly to terminals in Germany, the United Kingdom, and the Netherlands. This allowed Norway to substitute Russian pipeline gas almost immediately, without the bottlenecks or lead times inherent in LNG supply chains.

Gas pipelines that link Norway to continental Europe

	Name	Destination	Yr. Built	Distance
A	Europipe	to Germany	1995	620km
B	Europipe II	to Germany	1999	660km
C	Franpipe	to France	1998	840km
D	Gjøa	to United Kingdom	2010	131km
E	Knarr	to United Kingdom	2015	106km
F	Langeled (south)	to United Kingdom	2006	536km
G	Norpipe	to Germany	1977	440km
H	Tampen Link	to United Kingdom	2007	24km
I	Utsira High Gas Pipeline	to United Kingdom	2015	94km
J	Vesterled	to United Kingdom	1978	360km
K	Zeepipe	to Belgium	1993	808km



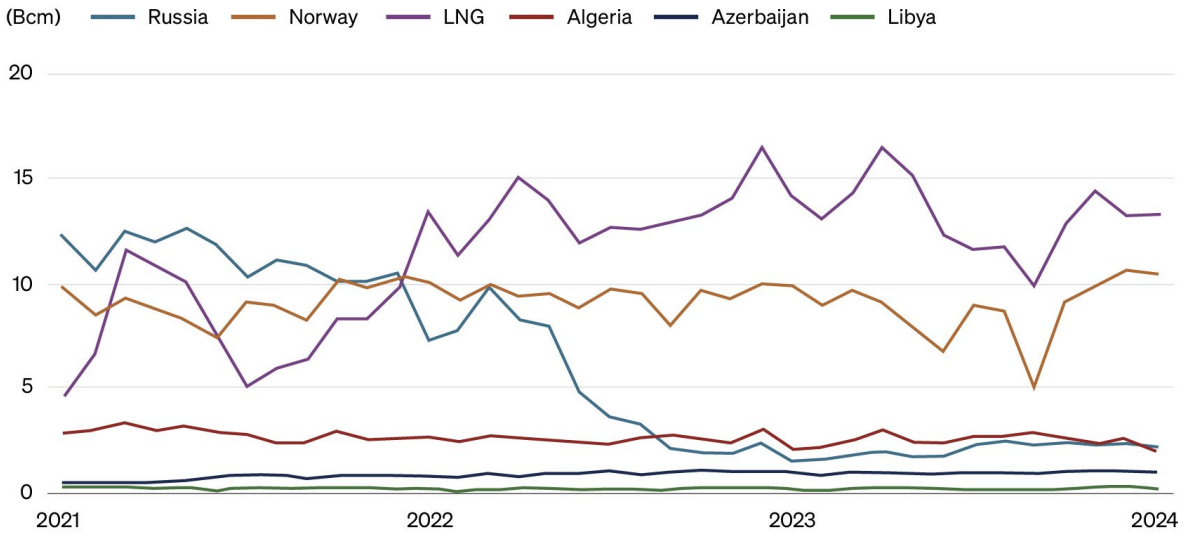
Sources: Infographic source: Global X ETFs with data derived from Gassco in 2022.

While Norway supplied the bulk of Europe's pipeline gas, the United States and Qatar filled Europe's remaining gap with LNG. **The three-part equation that kept Europe powered during the Ukraine war energy crunch can be broken down as follows:**

Norway's pipeline gas **U.S. LNG** **Qatari LNG**

Equinor, Norway's state-controlled energy champion, expanded output at its largest fields to meet Europe's surge in demand, driving record revenues and boosting the Norwegian sovereign wealth fund above $1.6 trillion. At a moment of acute energy insecurity, Norway transformed existing infrastructure, technical capability, and geographic advantage into geopolitical leverage, becoming Europe's primary energy backstop.

LNG, Norway continue to offset lost Russian gas in Europe



Source: S&P Global Commodity Insights.
Note: Country-specific sources are for pipeline gas.
Graphic shows imports into EU-27, UK, and the Balkans. Excludes Türkiye.

Norway

By the Numbers:

- 124–126 billion cubic meters—Norway's pipeline gas exports to Europe in 2024, replacing most of the Russian pipeline volumes lost after February 2022.
- $90 billion—Equinor's 2024 revenue, placing it among the world's most profitable non-OPEC energy companies.
- 8,800+ kilometers—Length of Norway's undersea pipeline network, the largest integrated offshore gas delivery system in the world.

What to Watch:

- Europe aims to sharply reduce natural-gas consumption in the 2030s through renewables, nuclear expansion, and efficiency measures. If this shift moves faster than expected, Norway's export volumes could decline earlier than projected.
- Because Europe depends on a handful of major Norwegian offshore fields and a single interconnected pipeline grid, any disruption would have immediate and widespread consequences for European energy security.
- The security of Norway's subsea pipelines will continue to be a major topic of interest as EU and NATO officials warn of grey-zone or hybrid threats posed to critical energy infrastructure. Expect expanded investment in these pipelines' physical and cyber security.

Boom 7

Brazil's Bounty: Natural resource export powerhouse

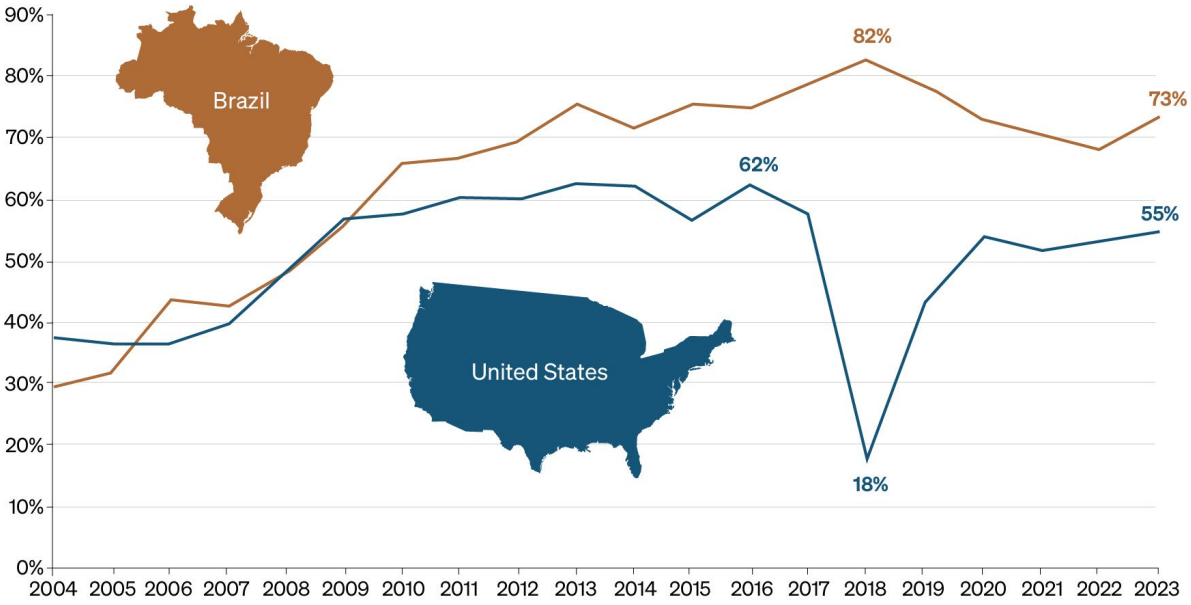
Brazil has quietly become one of the most strategically important resource suppliers in the world, sitting at the intersection of global demand for food, minerals, and battery materials. Its advantage comes from an unusually broad portfolio: Brazil is a top-tier agricultural exporter, controls the overwhelming majority of global niobium supply, and is rapidly scaling lithium production. Few countries combine this level of land, mineral wealth, and export diversity.

Agriculture is the core of Brazil's geopolitical weight, with agribusiness exports accounting for half of country's total export value. **Brazil is the world's largest exporter of soybeans, as well as a global leader in beef, poultry, sugar, orange juice, and coffee production.** This large diversified span of commodities affords it a wide variety of export market partners.

No starker example exists of the global rewiring of Brazil's agricultural export strategy than its supply pivot of soybeans towards Chinese buyers. **China is the anchor buyer, relying on Brazil for roughly 70% of its soybean imports** due to limits on China's domestic farmland and water availability.

U.S.-China trade politics have also played a key role: Brazil's soybean exports to China peaked at 82% in 2018 during the first U.S.-China trade war as Beijing sought to reward other producing countries with its purchasing power. In 2023, when Brazil's global soybean exports reached record levels, 73% of its shipments went to China.

China's Share of United States and Brazil Soybean Exports



Sources: University of Illinois, "FarmDoc" Project, USDA, and Secex/Brazil
Note: Exports by calendar year since the countries have different marketing years

Europe and the Middle East are also major consumers of Brazilian beef, poultry, corn, and soymeal, attracted by cost competitiveness and reliable supply. Brazil is uniquely capable of serving these markets because it has vast arable land, year-round growing seasons, and a **scientific research ecosystem that transformed the Cerrado savannah into one of the world's most productive farming zones.**

Minerals add another layer to Brazil's geo-economic advantages. Brazil holds upwards of **90% of global niobium supply**, a metal critical for producing high-strength steel used in defense systems, construction, aerospace, and advanced electronics. **Brazil's lithium carbonate equivalent (LCE) production surged to 49,844 metric tons in 2024** from 29,457 metric tons in 2023, fueled by a legislative overhaul four years ago that lifted export restrictions and attracted global investment.

Brazil's Minas Gerais state aims to attract up to 30 billion reais (US$5.6bn) in investments to the lithium-rich **Vale do Jequitinhonha area**, nicknamed "**Lithium Valley**."

Brazil's competitive lithium production costs, typically $400–$500 per metric ton—well below the $700+ seen elsewhere—further enhance its appeal. Infrastructure expansions at the Port of Açu are underway to support a projected doubling of lithium exports. The primary focus is on producing battery-grade lithium carbonate for the electric vehicle and energy storage industries. Although Brazil trails Australia, China, Argentina, and Chile in reserves, it is rapidly emerging as a key global supplier and is now the world's sixth-largest producer. **Similar to Australia, Brazil also lacks downstream processing infrastructure, with China receiving nearly 99% of Brazil's lithium carbonate exports in 2024** for further processing.

Taken together, these trends make Brazil a rare kind of geo-economic hotspot: a country that sits at the center of food security, critical minerals, and clean-energy materials all at once.

Brazil critical mineral production and reserves, 2023

% of global total	Production	Reserves
Niobium	90.36%	94.12%
Graphite	4.56%	26.42%
Rare earth elements	0.02%	19.09%
Iron ore*	18.67%	17.24%
Manganese	3.10%	14.21%
Nickel	2.47%	12.31%
Lithium	2.72%	1.39%

Sources: Columbia University Center on Global Energy Policy and the United States Geological Survey.
*Note: *Refers to iron content. Not a critical mineral, but included here due to Brazil's prominence in reserves and production.*

Brazil

By the Numbers:

- ~90%—Brazil's share of global niobium production, giving it near-monopoly control over a mineral essential for advanced steelmaking in defense, construction, and aerospace.
- 2x growth—Brazil's lithium output doubled from 2022 to 2024, making it one of the fastest-growing new players in the global battery supply chain.
- ~$60 billion—Foreign direct investment into Brazil in 2023, ranking it among the top destinations for capital flows in the developing world.

What to Watch:

- Heavy dependence on commodity cycles exposes Brazil to sudden swings in global prices. Brazil's strengths are considerable, but so is its vulnerability to factors outside its control—from Chinese demand to global mineral prices.
- Brazil's election in October 2026, and whether President Lula clenches a fourth term, will color the trend of continuation of Brazil's diversified export strategy as well as its relationship with Washington on trade.
- An EU–Mercosur deal finally crossing the finish line would turbocharge Brazilian agricultural and mineral exports into Europe at precisely the moment global supply chains are reorganizing.

Boom 8

Qatar doubles down on LNG

Qatar has emerged as one of the clearest geo-economic hotspots of the decade by transforming global energy insecurity into decades of guaranteed revenue and geopolitical influence. With the world's third-largest proven natural gas reserves, Qatar entered the post-Ukraine energy scramble in an unusually strong position. **When Europe cut off access to Russian pipeline gas and Asian buyers scrambled for reliable long-term supply, Qatar became the supplier of choice for governments and utilities seeking stability in a volatile market.**

At the center of Qatar's strategy is the massive **North Field expansion**—widely considered the largest LNG build-out in the world. Qatar aims to lift **LNG output from roughly 77 million tons per year today to about 142 million tons by 2030, a near-doubling** that will reshape global gas flows.

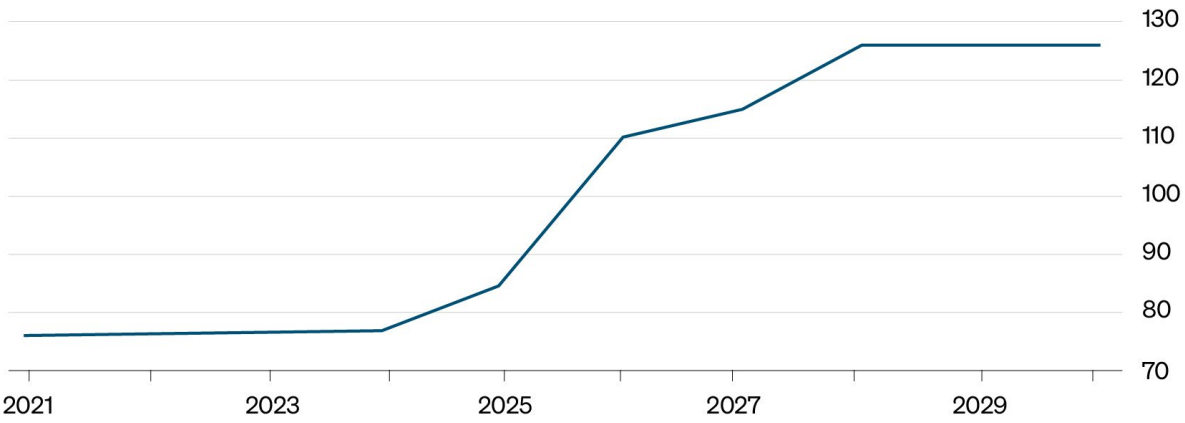
Doha has paired this engineering surge with an equally aggressive commercial push, signing a series of long-term LNG supply contracts with major buyers across Europe and Asia since 2022, with a dozen of deals publicly announced or reported over the past several years.

Note: The North Field is the world's largest natural gas field.

Qatar's ambitions extend well beyond upstream production. Its state-owned company, **QatarEnergy**, has launched one of the largest LNG-carrier shipbuilding programs in history—signing initial contracts worth nearly $20 billion with major South Korean shipyards, with additional orders following. **The result is a purpose-built fleet of next-generation LNG carriers that will come online alongside Qatar's liquefaction expansion.** In effect, Qatar is scaling its LNG output while simultaneously securing the shipping infrastructure needed to move that gas at the volume and pace it chooses.

Qatar is undertaking the largest single LNG expansion ever

Forecast impact of North Field project on Qatar's LNG production (mn tonnes)



Source: The Financial Times, Rystad Energy, IMF.

Qatar has effectively taken a moment of energy crisis and transformed it into a long-term dominance strategy: more supply, more customers, more guaranteed revenue, and more geopolitical leverage with both Europe and Asia.

Qatar

By the Numbers:

- 142 million tons per year by 2030—Target capacity after the full North Field expansion, which would make Qatar the largest LNG exporter globally.
- ~20 % of global LNG trade—Qatar's share of global LNG flows, giving it disproportionate influence over global pricing and supply security.
- 27 years—Duration of Qatar's LNG Contract with TotaleEnergy. This is a record-setting term for LNG deals, extending supply well past 2050.

What to Watch:

- Europe's gas demand may decline faster than expected as renewable energy, nuclear restarts, and energy-efficiency targets accelerate in the 2030s. If European utilities reduce contracted volumes, Qatar will need to absorb more supply into Asia.
- Asian demand itself could soften if China or India shift more aggressively toward coal alternatives, solar, or nuclear.
- Delays or cost overruns in the North Field expansion would postpone the projected revenue surge and disrupt Qatar's production timeline.
- India's accelerating shift from coal to gas could create a structural, multi-decade Asian anchor market for Qatari LNG.

Boom 9

The UAE as the Global AI Race's Desert Command Center

The United Arab Emirates has moved faster than almost any country outside the G7 to turn itself into a global center of artificial intelligence, advanced compute, and data infrastructure. After a decade navigating between U.S. and Chinese technology ecosystems, **Abu Dhabi is now strategically re-anchoring itself towards Washington**. Its core insight is simple and unusually clear: the AI boom will be constrained not by ideas or talent, but by **compute, land, and electricity**. **The UAE has mastered all three**—and has the sovereign wealth to scale them at a pace most countries cannot match.

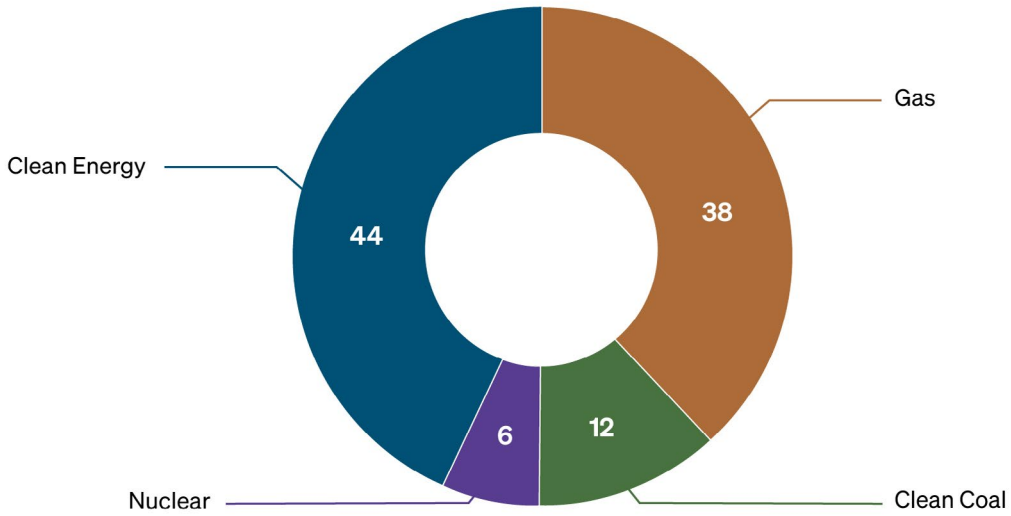
Two institutions sit at the heart of this push. **G42**, Abu Dhabi's flagship AI and cloud company, restructured its governance to meet U.S. national-security expectations and unwound sensitive China-linked partnerships, enabling a $1.5 billion investment from Microsoft in 2024. **In parallel, the government launched MGX, a $100 billion sovereign-backed investment platform designed to finance AI data centers, semiconductor supply chains, and next-generation energy systems.** Together, they anchor the UAE's long-term AI industrial strategy.

The most visible symbol of the UAE's pivot is **Stargate**, the proposed U.S.–UAE supercomputing corridor intended to build some of the world's most powerful AI systems using exclusively American chips, cloud platforms, and cybersecurity frameworks.

In May 2025, President Donald Trump and UAE President Sheikh Mohamed bin Zayed Al Nahyan signed an agreement to build the largest AI campus outside the United States in Abu Dhabi. The AI campus will span 10 square miles and will be built by G42 and operated in partnership with several U.S. companies. Image Source: Official White House Photo by Daniel Torok.

A crucial component of this strategy is **energy**. Nuclear generation from the four-unit **Barakah nuclear plant** will provide dependable carbon-free baseload. Massive solar projects such as the 2 GW **Al Dhafra solar plant** deliver some of the world's cheapest daytime electricity. Combined with fast-track permitting and centralized land allocation, **these measures will allow the UAE to scale AI infrastructure faster than almost any other nation**.

UAE 2050 energy goals



The United Arab Emirates is aggressively pursuing an "all of the above" energy strategy to generate the necessary electricity to power its grand AI ambitions – drawing upon the country's vast gas, solar, and now civilian nuclear resources. By 2050 the country aims to power 44% of its economy with clear energy sources. Image Source: UAE Embassy in Washington, D.C.

UAE

By the Numbers:

- 10 square miles—the size of the Stargate UAE campus, **equivalent to the size of Monaco**.
- $1.5 billion—Value of Microsoft's investment in G42, marking one of the largest U.S.–Middle East AI partnerships and a decisive shift away from previous China-linked technology ties.
- $100 billion—MGX's capital target, placing the UAE alongside the U.S. and China in national-scale AI investment power.
- ~5 gigawatts—Planned Abu Dhabi AI-compute capacity, equivalent to the grid load of small countries like Lebanon or Paraguay.
- ~2 trillion dollars—Total assets held by the UAE's sovereign funds (ADIA, Mubadala, ADQ), giving Abu Dhabi extraordinary leverage in global tech and energy markets.

What to Watch:

- The UAE's AI surge now depends on scaling energy and water infrastructure to power its gigawatt-scale compute clusters. The country must also maintain the trust of U.S. regulators, Washington has made clear that Chinese technology in sensitive cloud, telecom, or semiconductor environments is incompatible with deep U.S. partnerships.
- The UAE's pivot—including governance reforms at G42, divestment from sensitive Chinese vendors, and the Stargate program—is designed to reassure U.S. policymakers, but this balancing act requires continuous discipline.
- U.S. or EU export controls tightening further on Chinese AI could redirect a wave of investment from funds into "U.S. trusted" juridictions in the world—with Abu Dhabi at the top of the list.
- The UAE must maintain the trust of U.S. regulators, Washington has made clear that Chinese technology in sensitive cloud, telecom, or semiconductor environments is incompatible with deep U.S. partnerships.

Boom 10

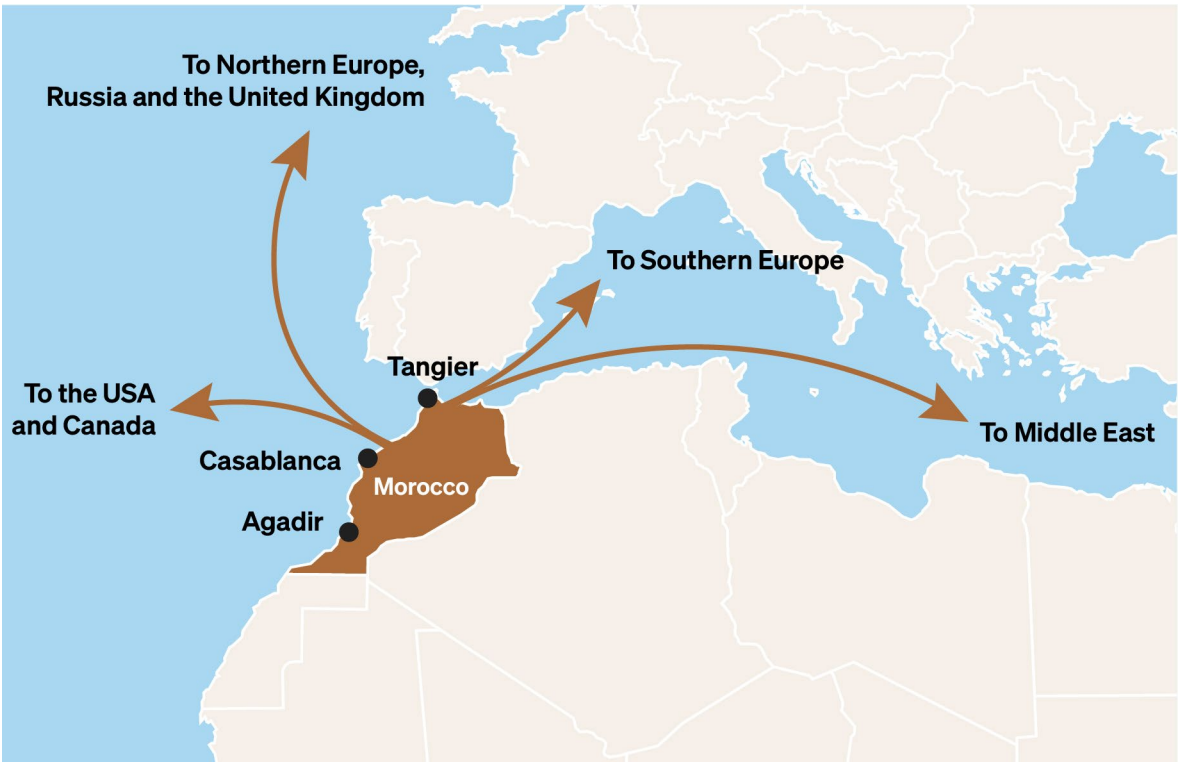
Morocco as Europe's Car Factory Next Door

Morocco has become the most successful nearshore automotive manufacturing base on Europe's southern flank. Its rise is the product of deliberate industrial policy, geographic advantage, and deep integration with European supply chains. **Renault and Stellantis now assemble hundreds of thousands of vehicles annually in the country**, supported by one of the world's largest clusters of **wiring-harness factories**.

Wiring harnesses are essential components for both gasoline and electric vehicles, and because they are labor-intensive to produce, Morocco's competitive wages and stable business environment have made it the preferred production site for European carmakers.

Morocco's advanced port sector plays a key part in its success story. It includes 13 ports open to foreign trade, organized into three main hubs:

- Eastern Hub (Nador): Focused on Europe, the Mediterranean, and Maghreb trade.
- North-West Hub (**Tangier Med**, Tangier City, Larache): Key for transit, ferries, cruises, and recreation.
- Kenitra-Casablanca Hub: Specializes in energy, containers, and cruise activities.



Morocco's geographic position, well trained labor force, and multitude of advanced ports have made it well suited to serve as a manufacturing hub for European companies.

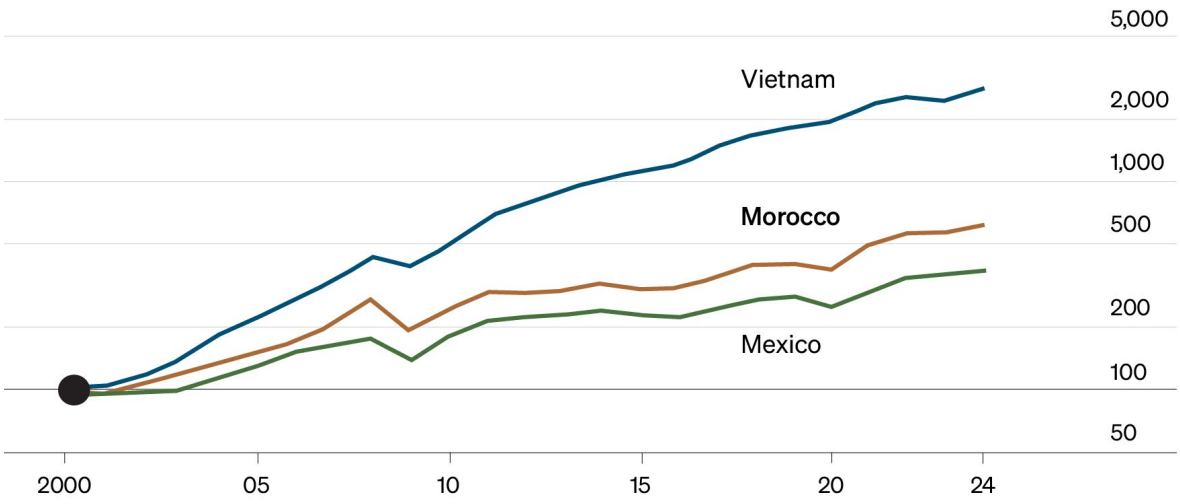
The logistics backbone and crown jewel of Morocco's port system is **Tanger Med**—Africa's largest industrial port complex which handles over 10 million containers a year. It offers direct maritime links into Europe, enabling Moroccan-produced vehicles and components to reach EU markets in just a few days. **Automotive exports have now become Morocco's single largest export sector**, reflecting how effectively the country has positioned itself as Europe's "factory next door."

Industrial zones in Tangier, Kenitra, and Casablanca have attracted a growing ecosystem of suppliers, allowing companies to plug directly into a ready-made manufacturing base without having to build entire supply chains from scratch.

The Moroccan government's **Port Strategy 2030** is central to Morocco's vision for economic growth and global connectivity. The strategy is focused on investment and expansion, and centered on driving port technology innovation, improving logistics, maximizing infrastructure use, and strengthening Morocco's international positioning.

Made in Morocco

Goods exports, 2000=100, $ terms
Log scale



Source: Haver Analytics and The Economist

Morocco

By the Numbers:

- 16 billion dollars—Value of Morocco's automotive exports in 2024, making autos the country's largest export category and placing Morocco among the top car-exporting nations outside Europe.
- ~220,000 workers—Size of Morocco's automotive industrial workforce, one of the largest manufacturing labor pools in North Africa and a key factor behind its competitiveness.
- ~400,000 cars per year—Stellantis' planned Moroccan production capacity, making Morocco one of the company's biggest hubs outside the EU.

What to Watch:

- Morocco's long-term competitiveness depends on whether it can move beyond labor-intensive components and deeper into the electric-vehicle value chain. Although it has strong assembly capacity, it does not yet produce high-value EV components such as batteries, motors, or power electronics.
- An expansion of the EU's diversification strategy away from singular reliance on Chinese manufacturing could lead to Brussels to double down on investment in, and private companies use of, North African supply chains and manufacturing.

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