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Nordic-African Business Cooperation

International Economic Relations, Energy, Critical Minerals and Digital Transformation

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The company is fully employee owned. Our employees have high academic credentials and broad experience in consulting. When needed, we utilize an extensive network of companies and experts both nationally and internationally.

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Preface

This report has been prepared by Statistics Norway and Vista Analyse for the Business Forum of the Nordic-African Foreign Ministers' Meeting (NAFM) in 2026. The work was carried out in the period between the 22nd of October and the 10th of November.

It was commissioned by the Norwegian Ministry of Foreign Affairs under the framework agreement 3 on international economics and geopolitics. Its purpose is to inform discussions on opportunities for strengthened trade, foreign direct investment (FDI), and economic cooperation between the Nordic and African countries with a particular focus on energy, critical minerals and digital transformation.

Brita Bye at Statistics Norway has been project leader. Rasmus Bøgh Holmen has been responsible for the delivery at Vista Analyse and contributed to writing of the report. Camilla Nore at Vista Analyse and Solveig Bjørkholt at Statistics Norway have been project participants. Bye and Holmen share the joint responsibility for quality assurance of the report.

Artificial intelligence has been utilized in the collection of data and literature, as well as in proof-reading and quality assurance.

Brita Bye, Senior Researcher at Statistics Norway
Rasmus Bøgh Holmen, Partner and Senior Researcher at Vista Analyse

10th of November 2026, Oslo

Glossary

AfCFTA	African Continental Free Trade Area
AfDB	African Development Bank
AGMS	African Union's Africa Green Minerals Strategy
BACI	CEPII database of reconciled bilateral trade at product level
BaTiS	OECD-WTO Balanced Trade in Services
CCS	Carbon capture and storage
CRS	Creditor Reporting System, the OECD database of aid activities reported by donors
DAC	Development Assistance Committee, the OECD forum of major aid donors
DFI	Development finance institution, such as Finnfund in Finland, Impact Fund Denmark in Denmark, Norfund in Norway and Swedfund in Sweden
DIP	IMF Direct Investment Positions by Counterpart Economy, formerly CDIS
EEA	European Economic Area, consisting of EU-27, Norway, Iceland and Liechtenstein
EU-27	The 27 member states of the European Union after the United Kingdom left on 31 January 2020
Export intensity	The share of a country's exports that goes to Africa, divided by the share of world exports that goes to Africa. Trade between African countries is excluded. Explained in the appendices.
FDI flows	Foreign direct investments ownership changes. May be inward or outward
FDI intensity	The share of a country's FDI stock abroad that is in Africa, divided by the same share for OECD countries outside the Nordics. For African FDI stock in the Nordics, the share of FDI stock in the country that comes from Africa is used. Explained in in the appendices. May be inward or outward
FDI stock	The value of foreign direct investment held at a point in time. An investment counts as FDI when the investment is strategic, operatively defined as cases where the investor holds at least 10 percent of the company. May be inward or outward
ICT	Information and Communication Technology
Import intensity	The share of a country's imports that comes from Africa, divided by the share of world imports that comes from Africa. Trade between African countries is excluded. Explained in in the appendices.
ISO	International Organization for Standardization
Leapfrogging	The adoption of new technologies or solutions that enable countries, industries or organisations to bypass intermediate stages of development and move directly to more advanced solutions
Nordic region	The countries Denmark, Finland, Iceland, Norway and Sweden, as well as their autonomous territories the Faroe Islands, Greenland and Åland. Trade and FDI focus on five countries, where Åland is included in Finland.
Scandinavia	The countries Denmark, Norway and Sweden

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Summary

The Nordic countries' trade with, and investment in, Africa are modest, including in energy, minerals and digital services and infrastructure. The Nordic countries account for about 6 percent of the European Economic Area's goods exports to Africa and 2 percent of its imports. Nordic development finance institutions hold half or more of their portfolios in Africa. Important questions are how Nordic engagement can contribute to economic growth and the green transition.

The Nordic edge lies less in volume than in risk-sharing finance, long-term ownership and high standards. Measured against Africa's share of world trade and investment, the trade and FDI stocks between the Nordic countries and Africa are relatively small, with Denmark as a partial exception. Nordic goods trade with Africa has grown since 2017 from a low level, but the Nordic share of European trade with Africa has not. The four countries Egypt, South Africa, Nigeria and Morocco account for 62 percent of the goods trade. The Nordic countries mainly sell machinery, shipping services, wood and paper and pharmaceuticals. They mainly import shipping services and oil, and Norway and Finland buy ores for their own smelters. Measured against Africa's share of world trade in each sector, Nordic exports are strongest in machinery and in wood, pulp and paper. Development finance gives the Nordic countries a larger role than the FDI stocks suggest. Studies find that trade and FDI may raise productivity and employment, including in Africa, although the gains depend of local conditions.

Reliable power supply is necessary for industrial development and jobs, and Africa gets far too little investment to provide it. Africa has 60 percent of the world's best solar resources but the largest gap in access to electricity. It is expected to receive only about 3 percent of global energy investment and 2 percent of clean energy investment. Capital for clean energy projects costs two to three times as much as in advanced economies. Nordic energy trade with Africa is mostly petroleum. China supplies about 70 percent of Africa's imports of clean energy equipment. Nordic contributions come through development finance, power producers, petroleum suppliers and market experience.

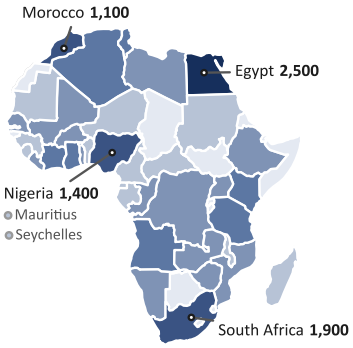
Africa mines many of the critical minerals the green transition needs. About a third of the export values leaves the continent as ores and concentrates, and very little is processed into battery materials. African countries mine about four fifths of the world's platinum and close to three quarters of its cobalt and manganese. The African Union's Green Minerals Strategy aims to move processing to Africa. African producers are increasingly setting the terms. China buys half of Africa's exports of these minerals and the Nordic countries under 1 percent. Norway buys ores for its smelters, and Sweden and Finland sell mining equipment. Nordic contributions lie in mining technology, geological knowledge and experience with permits and resource governance.

Digitalisation can raise productivity and create jobs, but the gains are not automatic, and the Nordic edge lies in skills, infrastructure and regulations rather than volume. Nordic companies held about USD 8.9 billion of FDI in Africa at the end of 2024, 0.8 percent of their total, and only a small share of that in ICT. Nordic ICT services exports to Africa were around USD 780 million, more than half of it from Sweden and half of it going to South Africa and Egypt. Development finance adds fibre, telecom towers and fintech. With nearly 60 percent of Africans under 25 years, digital platforms can create jobs, but weak rural connectivity, low digital skills and fragmented regulation limit who benefits. Nordic contributions may lie in investments, regulatory experience and development of international standards.

Visualisation

Infographics S-1 Economic relations between Africa and the Nordic countries

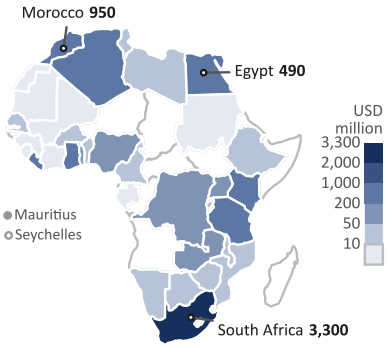
Nordic trade and foreign direct investment stocks in Africa, 2024, USD million



Nordic goods exports
Four countries dominate.

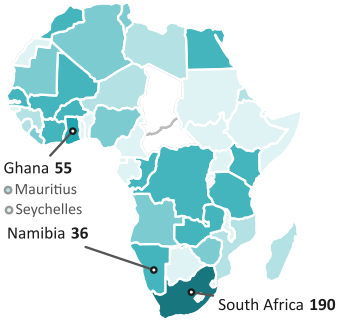


Nordic goods imports
Half of exports. Nigerian oil leads.

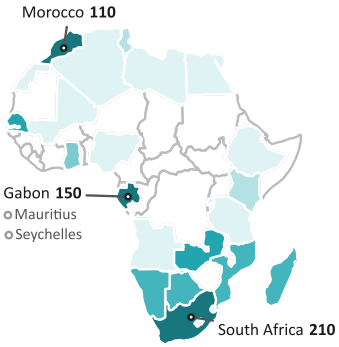


Nordic FDI stock
South Africa holds at least 37%.

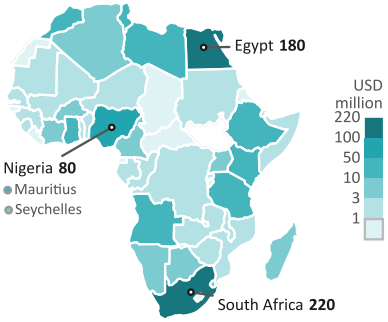
Mining equipment, energy-transition minerals and ICT services, 2024, USD million



Nordic mining equipment exports
Over 30% goes to South Africa.

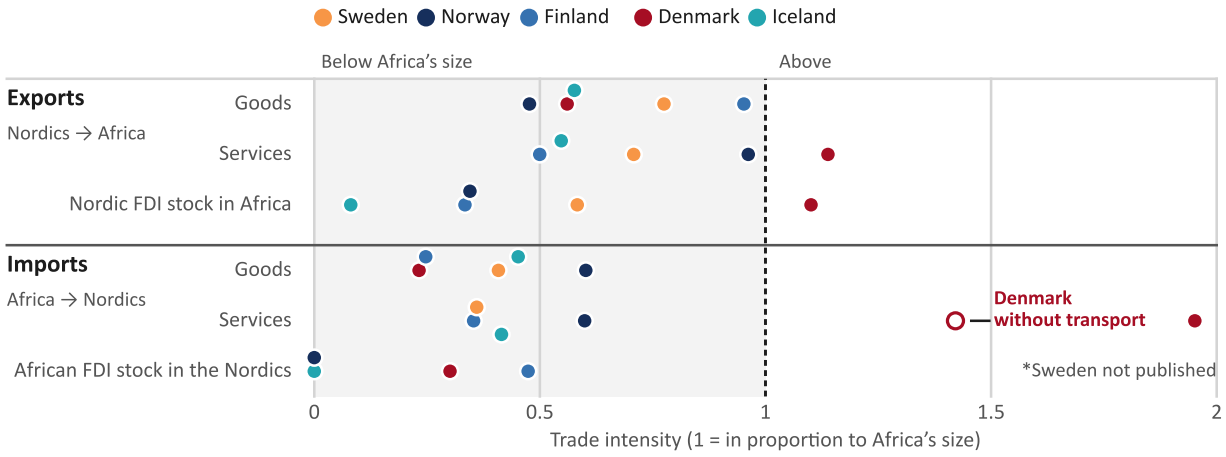


Nordic energy-transition mineral imports
Five countries supply almost 90%.



Nordic ICT services exports
Half goes to South Africa and Egypt.

Africa gets a smaller share of Nordic trade and FDI stock than its size suggests



Note: *Export intensity is Africa's share of a country's exports, divided by Africa's share of world imports. Import intensity and FDI intensity are measured in the same way, but FDI intensity uses OECD countries outside the Nordic region as the benchmark. Trade between African countries is excluded.*

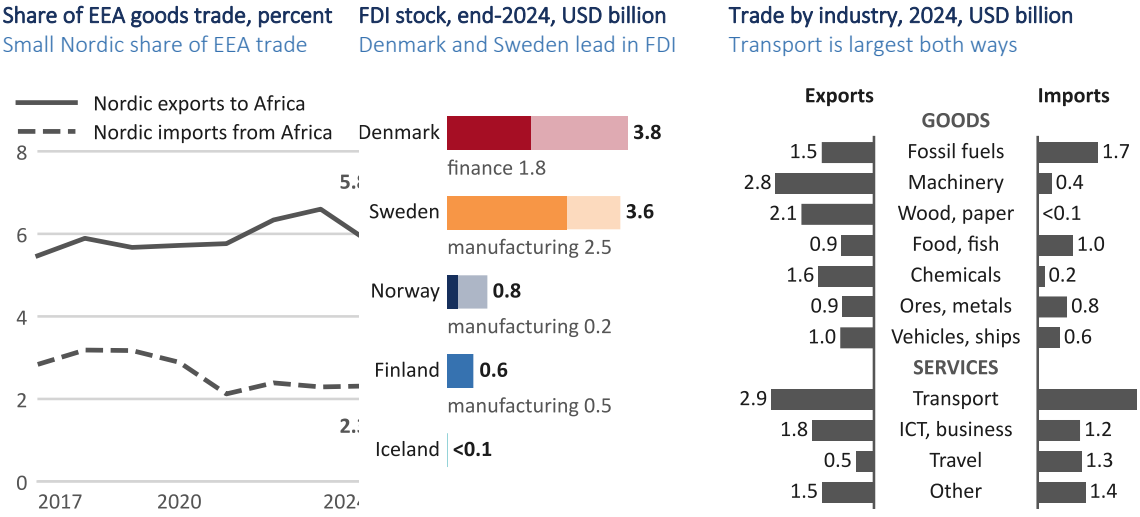
Source: *Vista Analyse and Statistics Norway based on CEPII BACI, OECD-WTO BaTiS, OECD FDI statistics, IMF DIP, Eurostat and Natural Earth*

1 International economic relations: Modest volumes with high potential

Trade and investments are important channels through which Nordic firms can contribute to job creation in and technology transfer to Africa. The flows are small and concentrated in a few countries and industries. Development finance gives the Nordic countries a larger role than just trade and FDI. The Nordic edge lies in risk-sharing finance, long-term ownership and increased focus on standards. High risk, fragmented markets and regulatory barriers hamper growth.

Nordic countries' trade with Africa is modest. Since 2017, Nordic exports to Africa have grown at about the same speed as the total European exports to Africa. Goods exports amounted to about USD 11 billion and services exports to about 6.6 billion in 2024. The Nordic countries account for about 6 percent of the European Economic Area's goods exports to Africa and 2 percent of its imports from Africa. The export share has fluctuated around 6 percent over the period, while the import share has fallen. For each Nordic country Africa accounts for 1 to 3 percent of its exports.

Figure 1-1 Nordic countries' share of the European Economic Area's goods trade with Africa in 2017 to 2024, percent (left), and Nordic FDI stock in Africa by country (middle) and largest trade industries (right), both USD billion 2024



Note: *EEA consists of EU-27, Norway, Iceland and Liechtenstein. Negative FDI stocks are excluded. The largest sector is shown with others in a lighter shade.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI (goods), Eurostat (FDI stock) and OECD-WTO BaTiS (services)*

Nordic trade with Africa is concentrated on a few sectors and countries, and FDI stocks show a similar pattern. Transport services, mainly shipping, are the largest item in both directions. Denmark is the largest services trader, with exports to Africa through shipping of about USD 1.7 billion in 2024. Egypt, South Africa, Nigeria and Morocco account for 62 percent of the goods trade, and 54 percent when services are included. Sweden and Finland export machinery, electrical equipment, wood, pulp and paper, while Sweden and Denmark export pharmaceuticals and chemicals. Norway exports refined oil products, fish and petroleum-related machinery and equipment. Egypt is the largest export market, at USD 2.5 billion or 23 percent of Nordic goods exports to Africa, mainly for Swedish and Finnish wood, paper, pharmaceuticals and machinery. Exports to Morocco are mainly paper, wood, fuels and machinery, and exports to South Africa are machinery

and vehicles. Trade with Nigeria is mainly petroleum based. Norwegian refined products make up two thirds of the exports, while crude oil dominates Nordic imports. Other imports include cars and electrical equipment from Morocco, and manganese and nickel ores and fruit from South Africa. Norway and Finland import ores for their metal industries. Swedish FDI stocks are mainly in manufacturing, and Danish FDI stocks are in finance and business services.

Due to reduced Norwegian petroleum investment, the Nordic FDI stock in Africa fell by more than 40 percent from 2014 to 2024, from USD 15.8 billion to 8.9 billion. Fields in Angola were depleted and written down, and Tanzania LNG was written off. Excluding Norwegian petroleum, the FDI stock rose from USD 7.4 billion to 9.0 billion and has been stable since 2017. Sweden and Denmark hold about USD 3.6 and 3.8 billion, Finland 0.6 billion and Norway about 1 billion outside petroleum. Norway's total is 0.8 billion, as its petroleum position is negative. The African FDI stock in the Nordic countries is small, about USD 0.4 billion in Denmark and Finland together. The figures understate the Nordic presence in Africa. Investment routed through holding companies in third countries is not counted as investment in Africa, and sales from Nordic-owned plants outside the Nordic countries are not counted as Nordic exports. Public support for private investment in Africa is usually justified by high real and perceived risk, which raises the cost of capital and keeps private investors away (IEA and AfDB, 2023). Government-backed development finance adds to the Nordic role. Norfund, Swedfund and Finnfund hold about half or more of their portfolios in Africa. Impact Fund Denmark placed close to 60 percent of its private-sector investments in Africa in 2025. Norfund's African commitments alone were about three times the Norwegian FDI stock in Africa in 2024, as they also include loans and minority stakes. Nordic development finance also mobilised private capital for Africa, four fifths of it for climate purposes.

Trade and foreign investment can contribute to productivity growth and create jobs in developing countries. The main channels are more productive firms (Atkin et al., 2017), reallocation of workers to more productive jobs (McMillan et al., 2014), market expansion (Bustos, 2011), and income equalisation (World Bank, 2020). Meta-analyses of firm-level studies show that productivity spillovers from FDI are relatively large in low-income economies and in countries with underdeveloped financial systems (Havranek and Irsova, 2011; Meyer and Sinani, 2009). Companies in which Norwegian Norfund held a stake employed about 515,000 people in Africa at the end of 2025. Affiliates controlled from Denmark, Finland and Sweden employed about 51,500 people in Africa in 2020 (Eurostat, 2024). The Nordic edge lies in how risk is shared, how long capital stays and the standards that come with it. Nordic firms are known for long-term ownership, transparency and high environmental and social standards (Hassel and Semenova, 2018).

Several barriers hold back investment in Africa. Barriers to investment include high risk and cost of capital (IEA and AfDB, 2023), small and fragmented markets, unreliable power supply (Cole et al., 2018) and little information about partners. FDI can bring finance that local firms find hard to get, but its effect on growth depends on well-functioning local financial markets (Alfaro et al. 2010; Hagan and Amoah, 2020). Trade and FDI rules can ease these barriers or add to them. The AfCFTA tackles fragmented markets by cutting tariffs, but its gains depend mostly on simpler customs and fewer non-tariff barriers (World Bank, 2020). EU climate and human rights rules raise the bar for African exporters. From 2026, the Carbon Border Adjustment Mechanism (CBAM) puts a carbon price on imports such as steel, aluminium, cement and fertiliser, which could reduce Africa's GDP by up to 0.9 percent, more than in any other region (ACF and LSE, 2023). EU due diligence rules add costs, but favour firms that document responsible production. More African countries ban raw ore exports and require local content to keep value in Africa (OECD, 2026).

2 Energy: Power for industry and jobs

Reliable power supply is necessary for industrial development, jobs and the green transition, and Africa gets far too little investment to provide it. Nordic energy trade with Africa is mostly petroleum. Africa has the world's largest gap in access to electricity and receives only about 3 percent of global energy investment. Capital for clean energy costs two to three times as much as in advanced economies. Most new projects in Africa are solar and wind, but the Nordic share of Africa's import of clean energy equipment is small.

Nordic energy trade with Africa is mostly petroleum. It has fluctuated around the same levels since 2017 (CEPII, 2026). Fossil fuels amounted to three quarters of Nordic energy exports to Africa in 2024 and almost all the imports. The largest flows are Norwegian refined products to Nigeria and crude oil from Nigeria and Libya to Sweden. China supplies around 70 percent of Africa's imports of clean energy equipment, and the Nordic region about 2 percent.

Trade figures show only part of Nordic activity in African energy. Norway has a large subsea supplier industry, and its firms work on Africa's offshore oil and gas fields, such as the deep-water blocks off Angola where Equinor is a partner. Norwegian petroleum suppliers' revenue in Africa was about NOK 14 billion in 2024, including services and affiliates abroad (Kanestrøm et al., 2025).

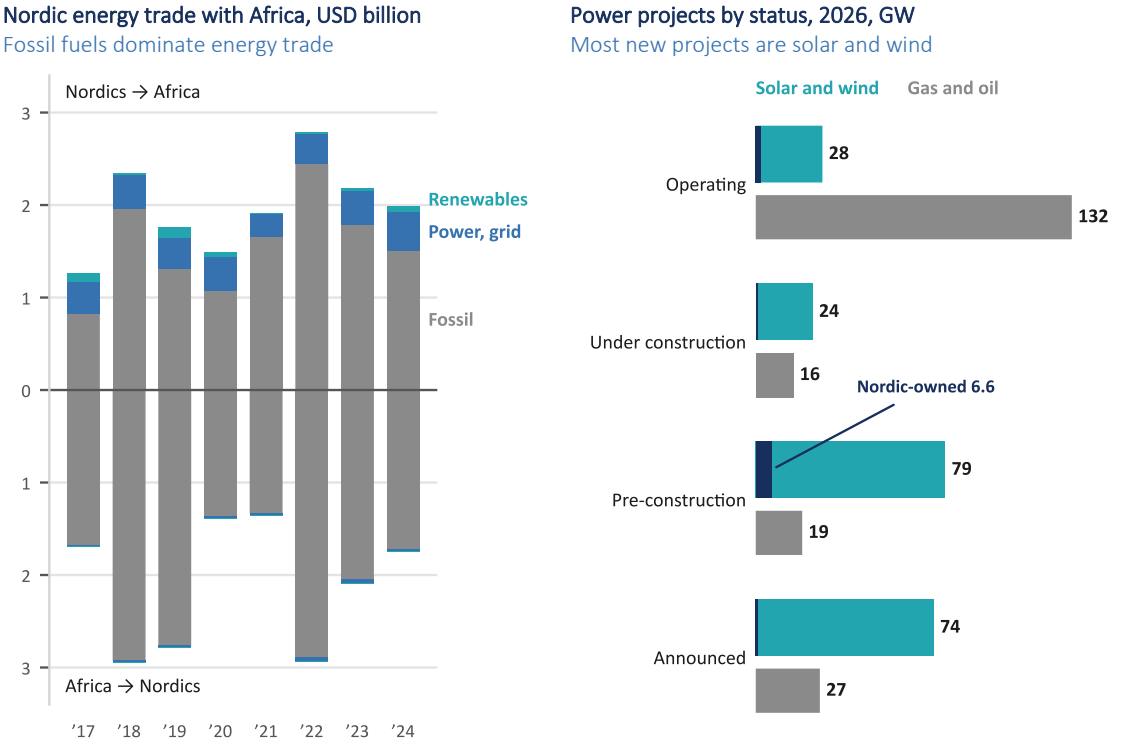
Africa needs more renewable power for economic growth and new jobs. Most new projects are solar and wind. About 580 million Africans lacked electricity in 2024, which is nine in ten of all people without electricity in the world. Gas and oil plants supply most of Africa's power capacity today. Hydropower supplies 17 percent of Africa's electricity, and over 80 percent in DR Congo, Ethiopia and Zambia. Climate change is projected to lower hydropower output in Zambia and Zimbabwe but raise it in the Nile basin (IEA, 2020). Norway is the world's 7th largest generator of hydropower (Norwegian Petroleum Directorate, 2022) and could share its experience in planning, operating and regulating hydropower. About 180 GW of solar and wind capacity is announced in Africa, in preparation or under construction, against 62 GW of oil and gas (Global Energy Monitor, 2026a, 2026b). Not all will be built, as about 30 GW of solar and wind projects have been cancelled and 45 GW shelved. A further 250 GW of solar and wind projects are planned to produce hydrogen for export rather than power for African grids (Global Energy Monitor, 2026a). These figures cover utility-scale projects, so off-grid solar for homes and small firms come in addition (ESMAP et al., 2024).

The cost of capital is a large barrier to investment in power. Africa is expected to receive about 3 percent of global energy investment in 2026, although it has a fifth of the world's population (IEA, 2026). Capital for clean energy projects costs two to three times as much as in advanced economies because of currency risk, weak state utilities and regulatory uncertainty (IEA and AfDB, 2023). Nordic firms and development finance institutions are among the owners of about 10 GW of Africa's solar and wind power capacity. Africa needs over USD 190 billion annually from 2026 to 2030 to reach universal energy access and its climate goals (IEA, 2022).

Better power supply can create jobs beyond the power sector. Power outages lower sales for firms across sub-Saharan Africa (Cole et al., 2018). In Ghana, removing scheduled outages could raise firm productivity by about 10 percent (Abeberese et al., 2021). Renewable energy employed about 344,000 people in Africa in 2024, 2 percent of global renewable energy employment (IRENA and ILO, 2026). Local assembly, installation and maintenance are where jobs in the power

industry can grow. Mission 300 of the World Bank and the AfDB aims to connect 300 million people to electricity by 2030 (World Bank, 2026).

Figure 2-1 Nordic energy trade with Africa, 2017 to 2024 (left), and Africa's power projects by status, 2026 (right)



Note: *Left: exports above zero and imports below, USD billion. Right: solar (from 1 MW), wind (from 10MW), gas and oil projects (from 50 MW), GW, no hydrogen export. Nordic-owned: at least one Nordic owner.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI and Global Energy Monitor.*

Oil and gas provide producers, such as Nigeria, Angola and Mozambique, with revenues and jobs. The African Union sees gas as part of expanding access to electricity (African Union, 2022). Norway has built domestic competence both to operate offshore petroleum fields and to supply them with goods and services (Ryggvik, 2015), and this experience could help African producers build similar competence. Another question is how to keep more of the value at home while lowering emissions from production, for example through electrification and, over time, carbon capture and storage. Norway is often cited for how it taxes and saves petroleum revenue, but the model rests on institutions built over decades (Thurber et al., 2011). African producers must weigh climate goals against energy access, revenue and jobs. Whether petroleum wealth raises or lowers income depends on institutions (Mehlum et al., 2006).

Trade statistics show a small Nordic role in the African energy sector, but the role is larger through technology, ownership and finance. For instance, Finnish Wärtsilä has installed 7.6 GW of engine power plants in Africa (Wärtsilä, 2026). Danish Vestas supplied the turbines at Kenya's 310 MW Lake Turkana wind farm and was a co-owner until 2024 (Vestas, 2024). Norwegian Scatec and Norfund co-own the 1.1 GW Obelisk solar and battery plant in Egypt (Norfund, 2025; Scatec, 2026). There are opportunities in three areas. First, Nordic development finance institutions already share risk in projects such as Obelisk (Norfund, 2025). Second, Nordic offshore know-how and Norwegian experience with petroleum revenue management are relevant for African producers. Third, Nordic experience with regional power trade and independent regulation may be of use to African power pools.

3 Critical minerals: From extraction to local value creation

Africa mines a large share of important minerals needed for the green energy transition. Much of the copper and platinum is refined before export, but little is turned into battery materials or other high-value products. China buys half of these exports and the Nordic countries under one percent. The Nordic countries buy ores for their own smelters and sell mining equipment.

Africa mines most of the world's platinum, cobalt and manganese, and China buys half of its exports. In 2025, African countries mined about four fifths of the world's platinum, three quarters of cobalt and manganese, but only about one eighth of lithium and graphite. DR Congo alone mines 74 percent of the world's cobalt and South Africa 71 percent of its platinum. Africa's exports of critical minerals for the energy transition, as defined by UNCTAD, doubled in value from 2017 to 2024, to USD 93 billion. Copper from DR Congo and Zambia explains most of the growth. China was already the largest buyer in 2017, and its share had risen from 28 to 50 percent in 2024. The Nordic countries bought 0.8 percent in 2024. Measured by value, about one third of these exports are ores and concentrates.

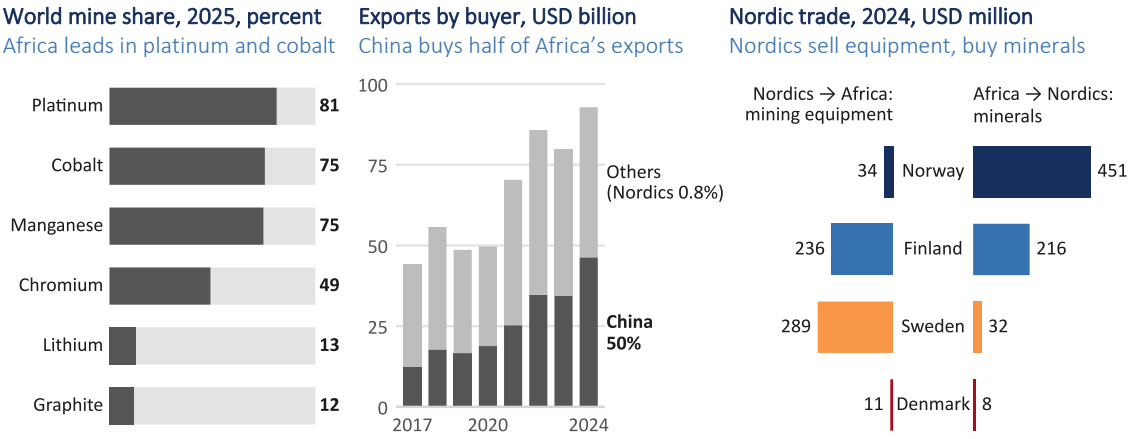
The Nordic countries buy raw materials for their smelters and sell mining equipment. They imported USD 0.7 billion of these minerals from Africa in 2024. Norway bought almost two thirds of them (USD 450 million) and Finland nearly one third (USD 220 million). Norway buys raw materials such as manganese ore from Gabon and titanium ores from Senegal for its smelters, and phosphate rock from Morocco for fertiliser. Finland buys nickel and copper concentrate. Sweden and Finland sell most of the Nordic mining and earth-moving equipment, with USD 290 and 240 million of the Nordic total of USD 0.6 billion in 2024.

Much of the metal is refined in Africa, but very little is made into battery materials or other manufactured products. This is despite national policy objectives to move further up the value chain. Studies point to the same obstacles across the continent: unreliable and expensive power supply, poor infrastructure, few skilled workers, limited access to financing opportunities and weak regional cooperation (African Union, 2024; Schulze, 2026). African producers are increasingly setting the terms, and export restrictions are at a record level. In the period from 2022 to 2024, around 70 percent of global exports of cobalt and manganese faced at least one restriction (OECD, 2026). In 2025, DR Congo introduced quotas for cobalt exports to stabilise prices and support domestic processing (Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, 2026). The aim is to bring more processing home, but that can also deter investors. The AU Green Minerals Strategy, adopted in 2025, builds on the Africa Mining Vision of 2009, which aims at transparent and fair use of mineral resources (African Union, 2024).

Regional initiatives aim to keep more of the value in Africa, but progress is slow. The industry opportunities lie in processing, where much of the value is added. The Lobito Corridor, a railway from the copper and cobalt belt of DR Congo and Zambia to Angola's Atlantic coast, could lower the cost of exports. The joint battery value chain agreed in 2022 has so far made little progress (Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, 2026). Building a battery precursor plant in DR Congo could cost a third of what it does in the United States (BloombergNEF, 2021). The EU has strategic raw material partnerships with DR Congo,

Namibia, Rwanda (paused), South Africa and Zambia (Schulze, 2026). Demand for responsibly sourced minerals creates a market for projects that combine local processing, reliable power and traceability.

Figure 3-1 Africa's share of world mine production (left), Africa's exports of critical minerals by buyer (middle) and Nordic-African mineral trade (right)



Note: *The middle panel shows exports to countries outside Africa in current prices.*

Source: *Vista Analyse and Statistics Norway based on USGS Mineral Commodity Summaries 2026 and CEPII BACI*

Mining companies rate the Nordic countries among the most attractive places to invest in mining. In the Fraser Institute's 2025 survey, Norway ranked 8th, Sweden 9th and Finland 11th of 68 jurisdictions, with Botswana 7th (Mejía and Aliakbari, 2026). The year before, Finland ranked first of 82, which the Geological Survey of Finland explains with clear legislation and good geological data (Geological Survey of Finland, 2025). Finland combines mining with battery chemicals, and Sweden has a large mining technology industry. The AU strategy itself points to the Nordic countries as examples of joining mining and industry policy in one ministry (African Union, 2024). Greenland, which is not part of the Nordic trade figures, has the world's eighth largest rare earth reserves, but no rare earth mine in operation. The ban on uranium mining and the lack of ports, power and labour are the main constraints (Wood Mackenzie, 2026). Norway has opened areas for seabed mineral exploration but postponed licensing due to environmental concerns.

Nordic firms purchase few African minerals, but Finland, Norway and Sweden have long experience with regulating mining. A national mining authority handles exploration and mining permits. Mines also need environmental permits. The authorities can require financial security for closure (Vartiainen, 2018a, 2018b). Mining companies rate the geological data in all three countries among the best in the world (Geological Survey of Finland, 2025). They are working to shorten permitting times. Norway's new Minerals Act gives the Directorate of Mining a duty to coordinate permits (Ellingsen and Haug, 2026). Finland moved state environmental permitting to one national agency in 2026 (Finnish Ministry of the Environment, 2025). Sweden plans a new environmental permitting authority (Government Offices of Sweden, 2026). This experience may be relevant to African authorities, but the transferability depends on local institutions. The Geological Survey of Finland has coordinated 15 World Bank-funded geoscience projects in Mozambique, mainly geological mapping (Geological Survey of Finland, 2023). Greenland's mining act lets the government require impact benefit agreements for projects with significant social impact, and domestic processing unless significantly more costly (Government of Greenland, 2023).

4 Digital transformation: Moving from access to impact

Digitalisation contributes to productivity, job creation and entrepreneurship, but these gains are not automatic. Mobile connectivity is expanding in Africa, but gaps in digital skills, rural infrastructure and common standards limit how widely gains spread. Nordic ICT services exports to Africa are small, and half go to South Africa and Egypt.

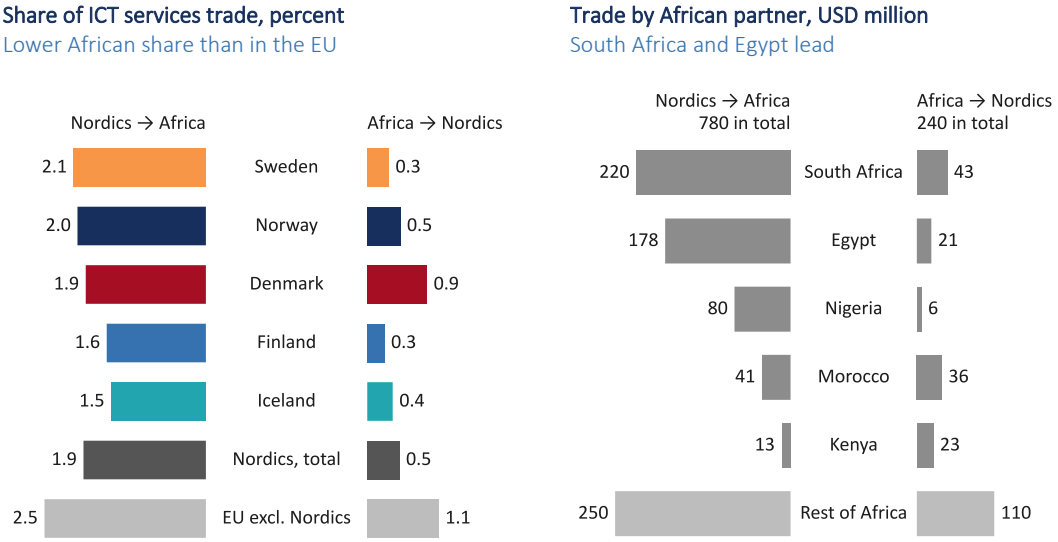
Globally, the digital sector is among the fastest-growing sectors in foreign direct investment (FDI) flows. Digitally deliverable services accounted for more than half of total services exports in 2024 (United Nations Codigitallyon Trade and Development 2025, 2026). At the end of 2024, Nordic companies held an FDI stock of around USD 8.9 billion in Africa, 0.8 percent of their total FDI stock, of which at least USD 0.5 billion was in information and communication technology (ICT), led by Finland (electronics) and Sweden (telecom and IT services). Finnish Nokia and Swedish Ericsson are the largest suppliers of mobile network equipment in the Middle East and Africa after Chinese Huawei (Bicheno, 2025). In addition to private capital, the Nordic development finance institutions invest in fibre, telecom towers and fintech, while the Norwegian oil fund holds minority stakes in African telecom companies.

In trade, the Nordic countries exported around USD 780 million in ICT services to Africa in 2024, amounting to about 2 percent of their ICT services exports. Half went to South Africa and Egypt, and more than half came from Sweden. Three quarters of these exports were computer services, such as software and IT consulting, and most of the rest was telecommunications. Telecommunications account for 22 percent of Nordic ICT service exports to Africa, compared to 11 percent of their ICT services exports to all countries. Flows to the Nordics are smaller, with ICT services imports from Africa of around USD 240 million. Two thirds of the imports are computer services, of which Denmark buys almost half, and South Africa is the largest supplier. Morocco and Kenya together provide 40 percent of the telecommunications services. Nordic ICT services exports to Africa grew by about 12 percent from 2019 to 2024 and imports from Africa by about 60 percent, so the trade has become somewhat less one-sided over the past five years. ICT goods, such as computers, communication equipment and electronic components, come in addition (United Nations Conference on Trade and Development, 2023). In Norway's case, exports from technology manufacturing are largely products associated with the offshore supplier industry.

Digitalisation can contribute to job creation and support green transition, but the benefits are not automatic. Mobile connectivity in Africa is expanding rapidly, and entrepreneurship is taking hold (Friederici et al., 2020). Mobile networks have let Africa skip much of the fixed-line stage, as they are far cheaper to roll out. In 2025, there were 92 mobile subscriptions per 100 inhabitants in Africa (International Telecommunication Union, 2025). With nearly 60 percent of the population under 25 in Africa (United Nations, 2024), digital platforms can create jobs for young people and connect local firms to regional and global markets (Azu and Nwauko, 2021). Sub-Saharan Africa accounted for two thirds of the world's mobile money transactions by value in 2025 (GSMA, 2026). Mobile money offers payments and savings without bank branches, which is common in developing countries. In Kenya, access to mobile money lifted about 2 percent of households out of poverty (Suri and Jack, 2016). Digital investment in Africa tends to have positive effects on productivity and employment, particularly in higher-skilled jobs (Hjort and Poulsen, 2019; Begazo

et al., 2023). Digital tools can also bring renewable power to households beyond the grid, for example by enabling mobile payment for off-grid solar systems (ESMAP et al., 2024).

Figure 4-1 Nordic-African ICT services trade in 2024, by Nordic country (left) and by African partner in 2024 (right)



Source: Vista Analyse and Statistics Norway based on OECD-WTO BaTIS

In 2024, 41 percent of Africans used the internet, against 97 percent in the Nordic countries. In sub-Saharan Africa, 90 percent lived within mobile broadband coverage, but only 25 percent used mobile internet (GSMA, 2025). Low digital skills and low affordability limit uptake, particularly among women and rural populations (ITU, 2021). Fragmented regulation and inconsistent standards further hamper digital trade, value chain integration and limit the gains from investment (Ariu et al., 2026). Meanwhile, geopolitical tensions drive governments investment screening in strategic technologies such as AI and semiconductors (United Nations Conference on Trade and Development, 2025). Trade and investment alone are therefore unlikely to close the gaps, as their effects depend on skills, affordability and the rules digital products must meet.

International standards may set rules and can spread the benefits of digital technology, but they can also act as barriers. Nearly 90 percent of world trade is shaped by non-tariff measures, most of them linked to standards (World Bank, 2025a), and barriers to trade are highest in Africa, although falling (López González et al., 2023). International standards can bridge regional systems such as the AfCFTA Digital Trade Protocol and European rules, and harmonised standards tend to improve trade, including for African exporters (Portugal-Perez et al., 2010; Czubala et al., 2009). African firms increasingly adopt international standards, with 5 information security certificates per 100 quality certificates in 2024, up from 1 in 2015, and against 7 in the Nordic countries. African participation is lower where standards are written, although this is where skills are shared and trust is built (World Bank, 2025a). Four Nordic countries vote in the ISO/IEC committee on information security, against only six of 54 African countries (Bjørkholt, 2026).

Nordic experience may also be relevant for ICT regulations and major public projects. Coverage obligations in spectrum licenses and network sharing help explain why Scandinavia lead Europe in 5G coverage (Kehoe, 2025). In Norway, a mandatory state project model ensures external quality assurance of major digital investments projects at state level (Welde and Engebø, 2024).

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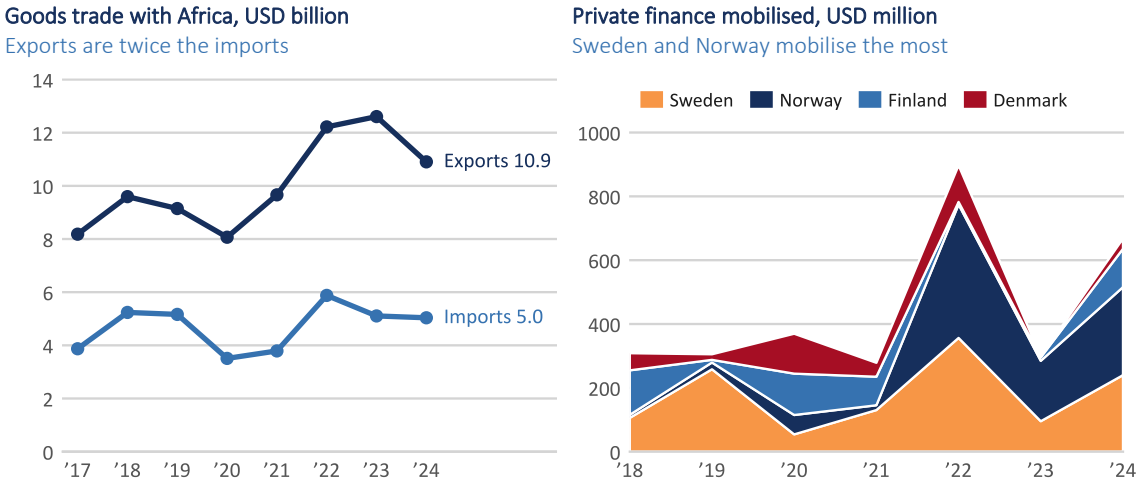
Appendices

Elaboration on Results

AAppendix: Additional results

Additional results are displayed in the figures that follow.

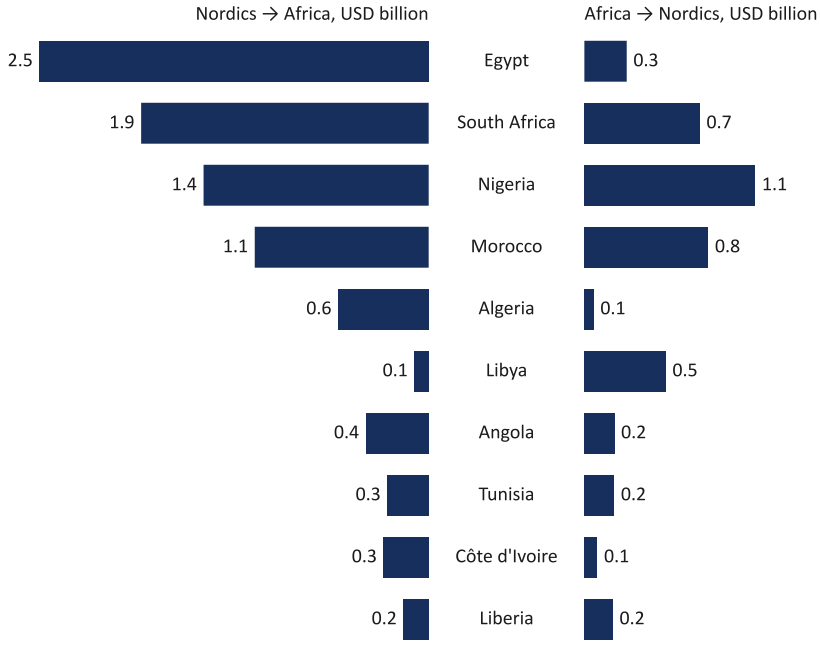
Figure A-1 a) Nordic goods trade with Africa from 2017 to 2024 (left) and b) private finance mobilised for Africa by Nordic official development finance from 2018 to 2024 (right)



Note: *Current prices. Iceland does not report mobilised finance.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI and OECD DAC/CRS*

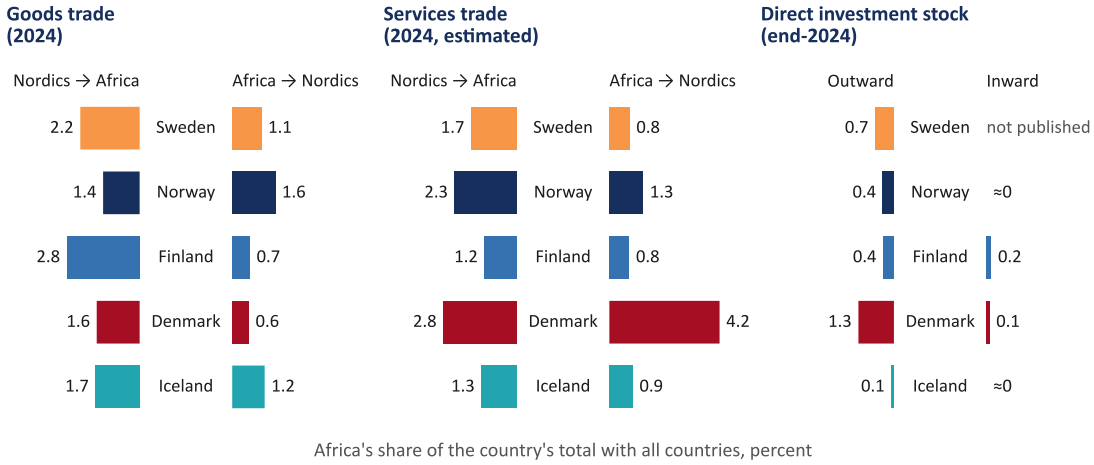
Figure A-2 The ten largest African trading partners of the Nordic countries, exports (left) and imports (right) in 2024



Note: *USD billion. Ships (HS 89) make up 89 percent of trade with Liberia.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI*

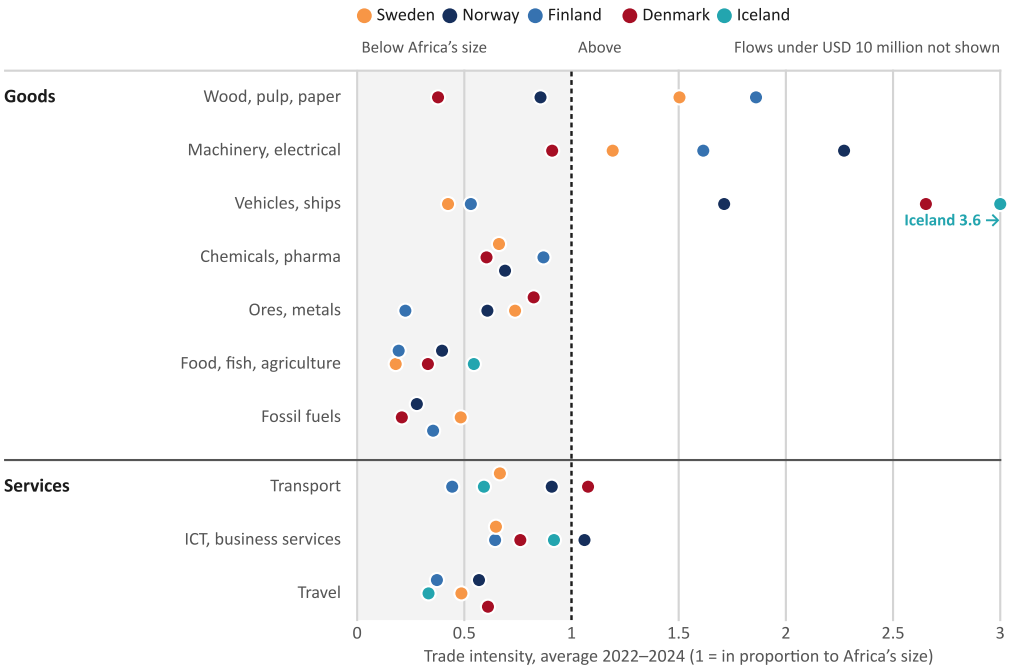
Figure A-3 Africa's share of each Nordic country's a) goods trade in 2024, b) services trade in 2024 and c) FDI stock in the end of 2024



Note: *Percent. Sweden's inward stock from Africa is confidential.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI (goods, 2024), OECD-WTO BaTiS (services, 2024 estimated) and Eurostat (FDI stock, end-2024)*

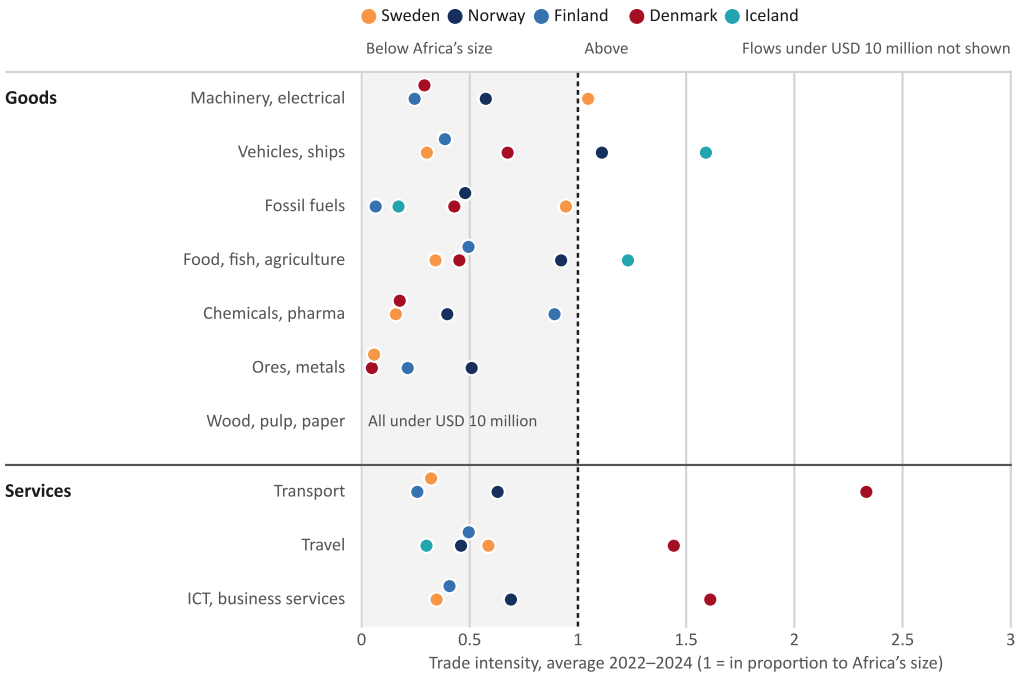
Figure A-4 Export intensity by industry, Nordic exports to Africa, average from 2022 to 2024



Note: *Africa's share of each country's exports in the industry, divided by Africa's share of world imports in the industry, excluding trade between African countries. Flows under USD 10 million are not shown. Vehicles and ships vary strongly between years. Iceland's value rests on a few flows that Iceland does not report itself.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI (goods) and OECD-WTO BaTiS (services, 2024 estimated)*

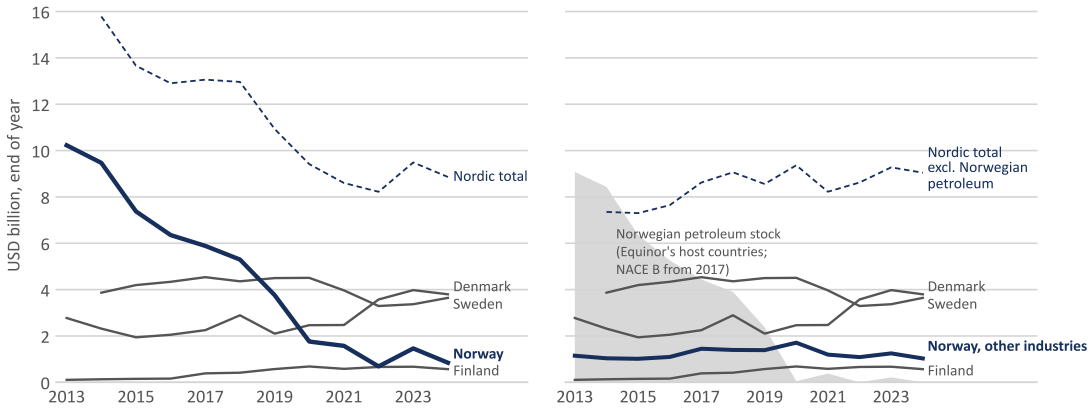
Figure A-5 Import intensity by industry, Nordic imports from Africa, average from 2022 to 2024



Note: *Africa's share of each country's imports in the industry, divided by Africa's share of world exports in the industry, excluding trade between African countries. Flows under USD 10 million are not shown. Vehicles and ships vary strongly between years.*

Source: *Vista Analyse and Statistics Norway based on CEPII BACI (goods) and OECD-WTO BaTiS (services, 2024 estimated)*

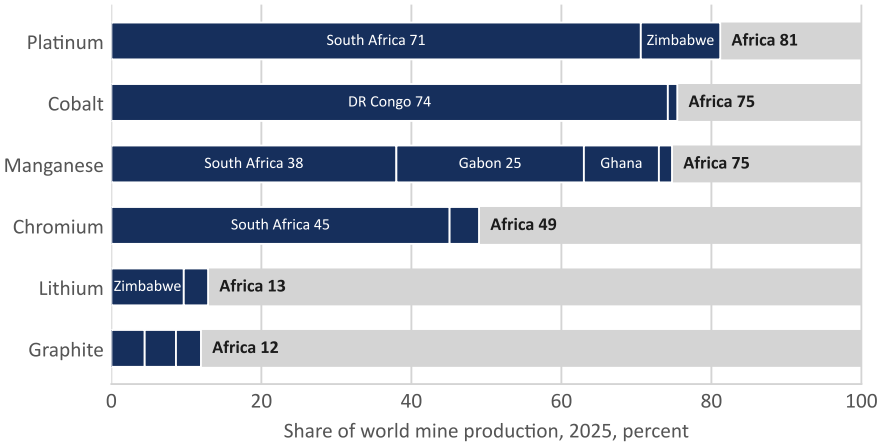
Figure A-6 Nordic FDI stock in Africa from 2013 to 2024, with Norwegian petroleum shown separately



Note: *USD billion, end of year. Norwegian petroleum is explained in appendix B. Sweden's 2013 figure is confidential.*

Source: *Vista Analyse and Statistics Norway based on Eurostat and IMF DIP*

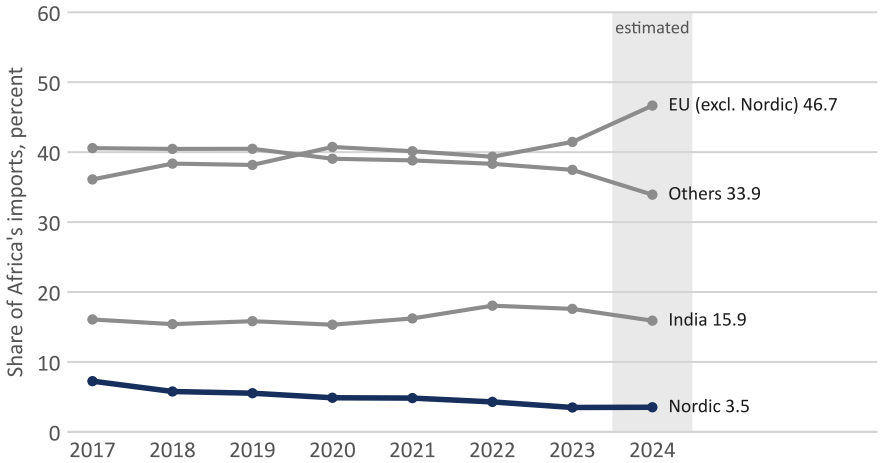
Figure A-7 African countries' shares of world mine production of selected minerals in 2025



Note: *Percent. The dark part of each bar is Africa's share of world mine production, with the total at the end. The white lines divide it by producing country, largest first. Only the largest producers are named. The bars do not add up to 100. Countries that USGS groups as "other" are not included, so Africa's shares are lower bounds.*

Source: *Vista Analyse and Statistics Norway based on USGS Mineral Commodity Summaries 2026*

Figure A-8 Market shares in Africa's imports of ICT services from 2017 to 2024



Note: *Percent. ICT services are telecommunications, computer and information services. Trade between African countries is excluded. Most values are modelled, so shares are orders of magnitude.*

Source: *Vista Analyse and Statistics Norway based on OECD-WTO BaTiS*

B Appendix: Data documentation

International sources use the same definitions for all countries, so the Nordic countries can be compared directly. Their figures are close to those of Statistics Norway. We use Statistics Norway where it covers the question and cite it for Norway. For the other Nordic countries and for Africa's trade with the world, we use CEPII BACI for goods, OECD-WTO BaTiS for services and Eurostat for FDI stock. All three build on national data. For Norway, BACI is within 4 percent of Statistics Norway's trade figures for 2024. Eurostat gives exactly the same Norwegian FDI stock in Africa as Statistics Norway for every year from 2014 to 2024. Market shares in Africa's trade exist only in the international databases. We checked the Nordic share of EEA exports to Africa against the values reported to UN Comtrade. The reported share is 5.3 percent, against 5.8 percent in BACI, with the same ranking of countries.

Norwegian petroleum is shown separately. The Norwegian petroleum FDI stock, largely held by one company, made up about half of the FDI stock in Africa in 2014 and remained the largest single component until 2016. It was depleted and written down between 2014 and 2020. This explains the fall of more than 40 percent in the Nordic total over 2014–2024, while the Swedish, Danish and Finnish FDI stocks are flat or rising (Figure A-6). To measure it, we use the Norwegian FDI stock in African mining and quarrying (NACE B), which for Norway is oil and gas and which Eurostat publishes from 2017. For 2013–2016 we use the IMF's figures for Norwegian FDI stock in Angola, Algeria, Libya, Nigeria and Tanzania. The two methods differ by less than USD 0.3 billion where both exist. Equinor's annual reports show write-downs in Angola and that Tanzania LNG was written off in 2020. Because the stock is a net position, write-downs can make it negative. In trade, fossil fuels (HS 27) play the same role and Figure 2-1 shows them separately.

Gaps in reported data. Reported data miss many small Nordic-African flows, so we use reconciled data. UNCTAD's data on critical minerals build on values reported by each country and miss many small Nordic-African flows. We therefore use UNCTAD's definition with BACI's reconciled values. WTO's merchandise statistics give partners only as the world and the EU, so we use WTO's bilateral data for services only, through BaTiS.

Confidential cells limit the FDI stock data. Confidential cells make the sum over African countries too low, so we use Eurostat's total for Africa. Statistics offices do not publish a figure that could reveal data for single firms, usually when fewer than three firms are behind it or one or two firms dominate. In IMF DIP, 42 of 236 Nordic-African country pairs are confidential at the end of 2024, most of them for Denmark and Sweden. The sum over African countries in DIP (USD 6.9 billion) is therefore lower than the total for Africa. Eurostat publishes the total for Africa (USD 8.9 billion), as Statistics Norway does for Norway. By industry, many cells are confidential. In figure 1-1, this part of each country's stock is included in the lighter shade.

Export intensity, import intensity and FDI intensity. The intensity measures compare Africa's weight for a Nordic country with Africa's weight for a benchmark. Export intensity is Africa's share of the country's exports, divided by Africa's share of world imports. Import intensity is Africa's share of the country's imports, divided by Africa's share of world exports. The world shares exclude trade between African countries. FDI intensity is Africa's share of the country's FDI stock abroad, divided by Africa's share of the outward FDI stock of OECD countries outside the Nordic region. For African FDI stock in the Nordic countries, it is Africa's share of the inward FDI stock in

the country, divided by Africa's share of the inward FDI stock in the same OECD countries. A value of 1 means that Africa has the same weight for the country as for the benchmark, 2 means twice the weight and 0.5 half the weight. The infographic uses data for 2024. In Figures A-4 and A-5, the intensity is calculated within each industry, and the figures show the average for the period from 2022 to 2024.

Further elaboration on our use of data is provided in tables.

Table B-1 Digital indicators for Africa and the Nordic countries

Topic	Indicator	Africa	Nordic countries	Year
Digital infrastructure	Internet users, share of population	41% (world 71%)	97%	2024
Digital infrastructure	Fixed broadband subscriptions per 100 people	2.0 (world 17.7)	41.2	2022
Skills	Tertiary education, gross enrolment ratio	18% (38 countries)	90%	latest, mostly 2020–2024
Research	R&D spending, share of GDP	0.01–1.0% (29 countries; highest Egypt and Kenya)	3.0%	latest, 2015–2024
Standardisation	ISO member countries	47 of 54 (33 full members)	5 of 5	2026
Standardisation	Median ISO technical committees per member	26	410	2026
Patenting	Patent applications by residents at national offices	3,493 (19 countries)	5,443	2023
Cybersecurity	Countries in top tier of ITU Global Cybersecurity Index	7 of 54	5 of 5	2024
Research cooperation	Nordic-African co-publications (2015 in brackets)	6,246 (3,041)	same	2024
Research cooperation	of which on artificial intelligence	476 (138)	same	2024

Note: *Africa: population-weighted average of reporting countries; R&D as range. Patents at national offices only, excluding EPO and PCT filings. Co-publications have at least one Nordic and one African author address.*

Source: *Vista Analyse and Statistics Norway based on World Bank WDI (ITU, UNESCO, WIPO), ISO, ITU (2024) and OpenAlex*

Table B-2 Main data sources, coverage and use in the report

Topic	Source	Years	Coverage	Use
Goods trade	CEPII BACI (HS 2017)	2017–2024	All 54 African countries; reconciled exporter and importer data	Main source for goods trade and market shares
Goods trade, Norway	Statistics Norway table 08809	2017–2025	By country and SITC	Control of BACI; cited for Norway
Critical minerals, definition	UNCTADstat, trade in critical minerals	2002–2024	Reported data; many Nordic-African country pairs missing	Definition (HS list) and control
Services trade	OECD-WTO BaTiS	2005–2024	Balanced matrix; 2024 estimated	Services trade by category; digital services (chapter 4)
FDI stock	Eurostat (bop_fdi6_pos)	2013–2024	FDI stocks by partner region and NACE section; many industry cells confidential	Main source for FDI stocks
FDI stock, Norway	Statistics Norway tables 11326 and 12754	2007–2024	Outward by country; inward by ultimate owner	Cited for Norway; identical to Eurostat and DIP
FDI stock, control	IMF DIP; Danmarks Statistik, SCB, Statistics Finland	2009–2024	Same definition; DIP by African country	Control; national totals agree with Eurostat
FDI stock, benchmark	OECD FDI statistics	2024	Outside the Nordic region	Benchmark for FDI intensity
Affiliates abroad	Statistics Norway (09827), Eurostat (fats_out2_r2)	2008–2024; 2010–2020	Many confidential cells	Employment in Nordic-controlled enterprises
Digital indicators	World Bank WDI (ITU, UNESCO, WIPO), ISO, ITU GCI 2024, OpenAlex	2015–2026	Reporting countries vary (R&D 29, patents 19)	Table B-2
Mobilised private finance	OECD DAC/CRS	2012–2024	DNK, FIN, NOR, SWE	Development finance
Energy	SDG7, IEA WEI, IRENA, World Bank Enterprise Surveys	various	Africa, all countries	Context indicators
Critical minerals	USGS MCS 2026, AU AGMS, OECD export restrictions, SWP	various	Global production	Production shares and policy

Source: Vista Analyse and Statistics Norway

Table B-3 Key energy indicators for Africa

Indicator	Value	Year	Source
People without electricity	581 million (89% of world)	2024	IEA et al. (2026)
Energy investment	USD 110 billion (3% of world)	2026 (expected)	IEA (2026)
Clean energy investment	close to USD 50 billion (2% of world)	2026 (expected)	IEA (2026)
Installed renewable capacity	82 GW (1.6% of world)	2025	IRENA (2026)
Power outages, firms in sub-Saharan Africa	7.6 per month (world 3.8)	latest survey (2025)	World Bank (2025b)
Norwegian petroleum suppliers' revenue in Africa	NOK 14 billion (9% of international revenue)	2024	Kanestrøm et al. (2025)

Source: Vista Analyse and Statistics Norway, compiled from the sources listed.

Table B-4 Industries and HS codes used in the report

Group	HS codes (HS 2017) or services (EBOPS)
Food, fish and agriculture	01–24
Fossil fuels	27 (incl. 2709 crude oil, 2710 refined products, 2711 petroleum gases)
Ores, minerals and metals	25, 26, 71–83
Chemicals, pharmaceuticals and plastics	28–40
Wood, pulp and paper	44–49
Machinery and electrical equipment	84, 85, 90
Vehicles and ships	86–89
Transport services; travel	SC; SD
ICT and business services	SI, SJ, SH
Renewables and batteries	854140 (incl. LEDs), 850231, 850760, 854330, 841861
Power plant and grid equipment	8504, 8401, 8402, 8404, 8406, 8410, 841181–841199, 8502, 8503, 8507 (excl. 850760), 8535–8538, 8546, 8547, 902830
Mining and earth-moving equipment	8429, 8430, 8431, 8474
Supplies to oil and gas	8544; 7304–7307, 8307; 8481, 8413, 8414; 843041, 843049, 843143; 7308; 89; 9015, 9026, 9031, 9032; 8425, 8426, 8428; 8479, 8419, 8421; 8501, 8535–8537
Critical minerals	UNCTAD's list of critical minerals for the energy transition (218 HS6 codes)

Note: Other goods (41–43, 50–70, 91–99) and other services (construction, finance, insurance and the rest) are grouped together. Critical-mineral totals use UNCTAD's list of critical minerals for the energy transition.

Source: Vista Analyse and Statistics Norway.

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