

REPORT

EXPORT REPORT (EKSPORTMELDINGEN) 2024



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Preface

For a small economy engaged in the global marketplace, exports represent a pivotal economic component. Not only do export pay for import, but it also reflects a nation's competitive advantage on the global stage, contributing to increased productivity in the economy.

The Export Report is an annual publication that Menon Economics has prepared for the fourth consecutive year. The purpose of the report is to convey quantitative and qualitative information about the status of Norwegian exports to decision-makers and organizations. This year's edition of the report has been prepared on behalf of the Confederation of Norwegian Enterprise (NHO), the Norwegian Confederation of Trade Unions (LO), Innovation Norway, Export Finance Norway (Eksfin) and the National Export Council.

Menon Economics is a research-based analysis and advisory firm operating at the interface of economics, politics and the market. Menon analyzes economic issues and provides advice to companies, organizations municipalities, counties, and departments. Our primary focus is empirical analyses of economic policy, and our employees have economic expertise at a high scientific level.



March 2024

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Executive summary

In this year's Export Report, we provide a status and update on the export year 2023. This is a continuation from three preceding reports written by Menon. In addition to the usual chapters in the report, this year's edition also contains three additional chapters. The first of these addresses Norway's green tech exports today and further opportunities. The second highlights the importance of Norwegian service exports and the third focuses on the importance of cornerstone companies.

A reduction in the export of oil and gas, but historically high export of traditional goods and service

In 2023, Norwegian companies exported goods worth 2,400 billion NOK, a decrease of about 24 percent from the record year 2022. This was primarily driven by lower gas prices. Historically, however, oil and gas exports remain at a high level. Exports of goods and services excluding oil and gas ended up at 1,225 billion NOK in 2023 – the highest level ever. Approximately half of this increase can be explained by higher prices and a falling exchange rate, and the remaining half of the growth can be attributed to increased sales volumes abroad.

Regarding exports excluding oil and gas, the maritime sector was the largest export industry in 2023, with an export value of 230 billion NOK in 2023. This was a 2 percent growth from 2022, primarily driven by high freight rates and an increased level of activity among shipping companies operating in international waters. The energy-intensive industry's export was 190 billion NOK, a decline of about 8 percent from 2022, mainly due to a decrease in raw material prices, particularly the prices of fertiliser and aluminium. The seafood industry exported for 165 billion NOK, an increase from 2022. This is the highest level ever and was driven by increased prices for seafood; measured in volume, there was a slight reduction from 2022.

Looking ahead, our forecasts indicate that the value of total Norwegian export is expected to continue to decline in 2024. However, exports will still be among the highest levels historically and generate substantial export revenues for Norway. The decrease in exports will primarily be driven by oil and gas exports which are expected to fall to just below 1 trillion NOK for the first time since 2020. For other export industries, we are anticipating a combined growth of just over 4 percent in 2024. The growth outlook for 2025 is expected to be somewhat more stable, with growth anticipated in all sectors except for the seafood industry. Nonetheless, these forecasts are subject to significant uncertainty due to the war in Ukraine, potential escalation of conflicts in the Middle East, and the continued high levels of inflation and interest rates globally.

Compared to our neighbouring countries, exports are still lower and growing more slowly

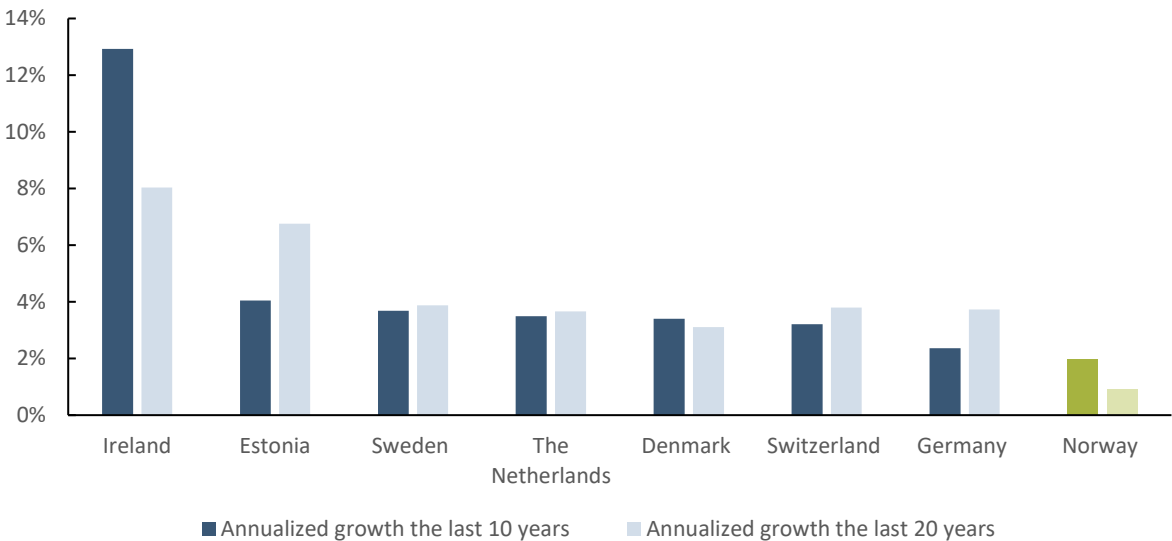
In 2023, Norwegian businesses primarily exported to Europe, especially to EU/EEA countries. In 2023, EU/EEA countries accounted for 70 percent of oil and gas exports and 50 percent of Norwegian exports excluding oil and gas. Including the United Kingdom, these countries accounted for 95 percent of Norwegian oil and gas exports. The most important markets outside of Europe were Asia followed by North and Central America. In 2023, Sweden was the largest importer of Norwegian goods (excluding oil and gas), followed by the Netherlands. Germany was the largest importer of oil and gas, followed by the United Kingdom.

As in previous reports, we have analysed Norwegian exports in an international context. Generally, the picture is the same as we have seen since 2020, where Norway scores lower than most comparable countries. Measured in total value creation (contribution to GDP), Norway, for example, exports little compared to several other

European countries. Norwegian exports of goods and services as a percentage of GDP were at 47 percent in 2023. This is higher than the Norwegian average over the past ten years. Although it is a good year in a Norwegian context, exports as a percentage of GDP are still lower than the EU average of 53 percent, and lower than Sweden (54 percent) and Denmark (68 percent). If we look at Norwegian exports excluding oil and gas, the export share falls to 32 percent, which is at a lower level than the other comparable countries. This illustrates both how low export excluding oil and gas is relative to GDP and how dependent Norwegian exports are on the oil and gas sector.

The low relative export is due to low growth over the last 20 years, where we see that export growth measured in constant prices has been rather weak compared to other countries. This is illustrated in the figure below.

Figure A: Annual export growth over the last 10 and 20 years, measured in constant prices. Norway updated with 2023 figures, other countries are 2022 figures. Source: IMF



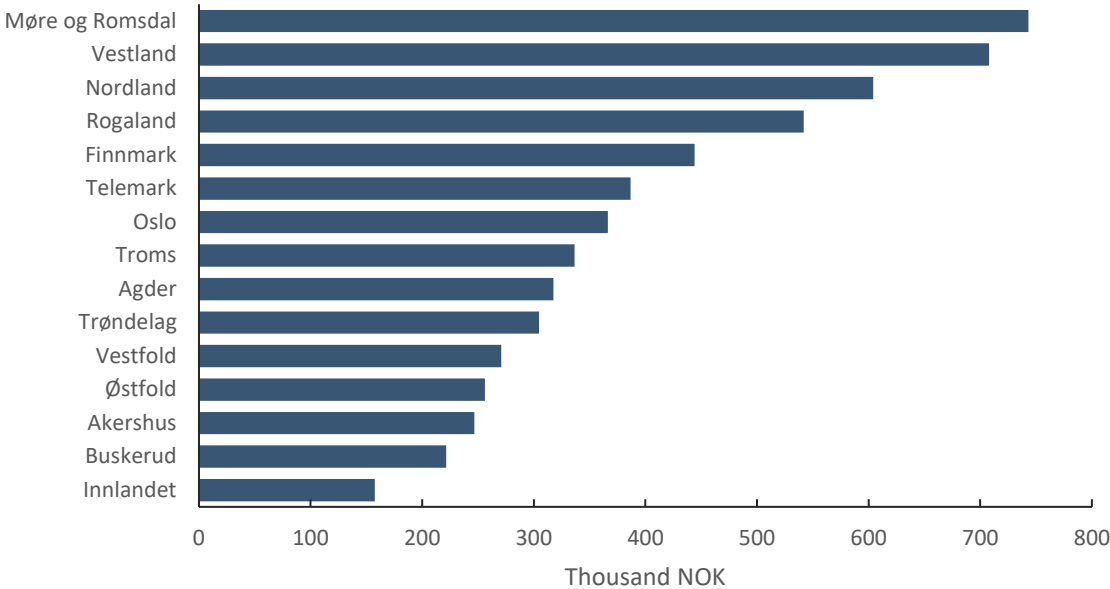
The reasoning behind the relatively low growth is multifaceted. One of the reasons is that the growth in oil and gas exports measured by volume has been low. This is decisive as it is by far the most important export industry in Norway. Another reason is that the oil and gas sector accounts for a large proportion of the capital and labour in Norway. This can limit growth in other export industries. Furthermore, Norway has higher labour costs than comparable countries. This means that export industries, where labour is a significant input factor, may become less competitive to establish in Norway. However, this is not an exhaustive list. A more detailed review of potential reasons can be found in the Export Report 2023.

Western Norway exports the most in absolute terms, while rural municipalities have the highest export intensity

In the report, we break down exports from mainland Norway by county and municipality. As in previous years, we see that Norwegian export is concentrated in Western Norway, with Vestland county as the clearly largest exporting county. In 2023, businesses in Western Norway exported goods and services totalling 232 billion NOK. The analysis also finds that three of Norway's five largest export counties are in Western Norway. In addition to Vestland, these are Rogaland and Møre og Romsdal, and together these counties account for 40 percent of the total mainland exports.

However, total exports in absolute terms are a poor measure of how dependent a region is on exports. A better measure is export intensity, which is calculated as export per employed person in the region. This is shown below for Norwegian counties.

Figure B: Export per employed person, excluding oil and gas, by counties in 2023. Source: SSB and Menon Economics¹



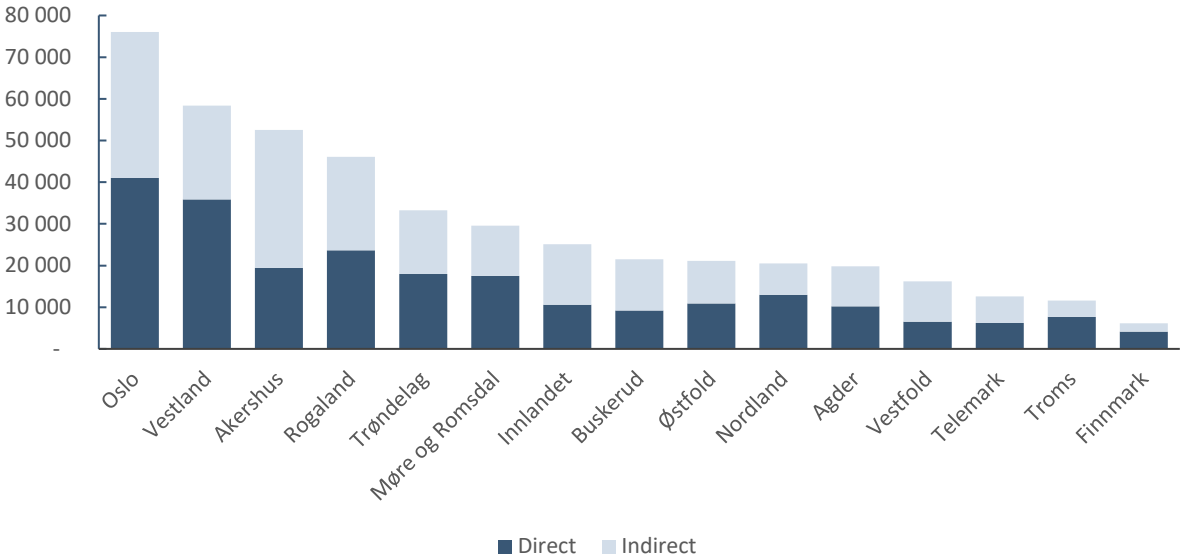
The three most export-intensive counties in 2023 are Møre og Romsdal, Vestland, and Nordland. Møre og Romsdal had an export value of nearly 750,000 NOK per employed person and has been the most export-intensive county since the first edition of the Export Report in 2021. The high export intensity is driven by significant exports from companies in the maritime sector, seafood industry, and energy-intensive industry based in the county. Vestland county is closely behind Møre og Romsdal with an export intensity of 708,000 NOK. The energy-intensive industry, the seafood industry, and the maritime sector are also the largest export industries in this county. Nordland is the third most export-intensive county with 604,000 NOK per employed person. Here primarily exports of seafood, as well as the industry, contribute to the high export intensity.

Exports provide the basis for 630,000 jobs – one in five jobs in Norway

Exports support employment across the country both in the export industries themselves, and through their value chain of suppliers and subcontractors. In 2023, we estimate that exports laid the foundation for 630,000 jobs. This corresponds to around one in five Norwegian jobs. Based on our mapping of exports by geography, we estimate jobs supported by exports in each county.

¹ Export per employed in this report includes all employees in the municipality from Statistics Norway (SSB). This includes the private sector and public employees.

Figure C: Employment effects (direct and indirect) of exports excluding oil and gas, by county. Source: Menon Economics



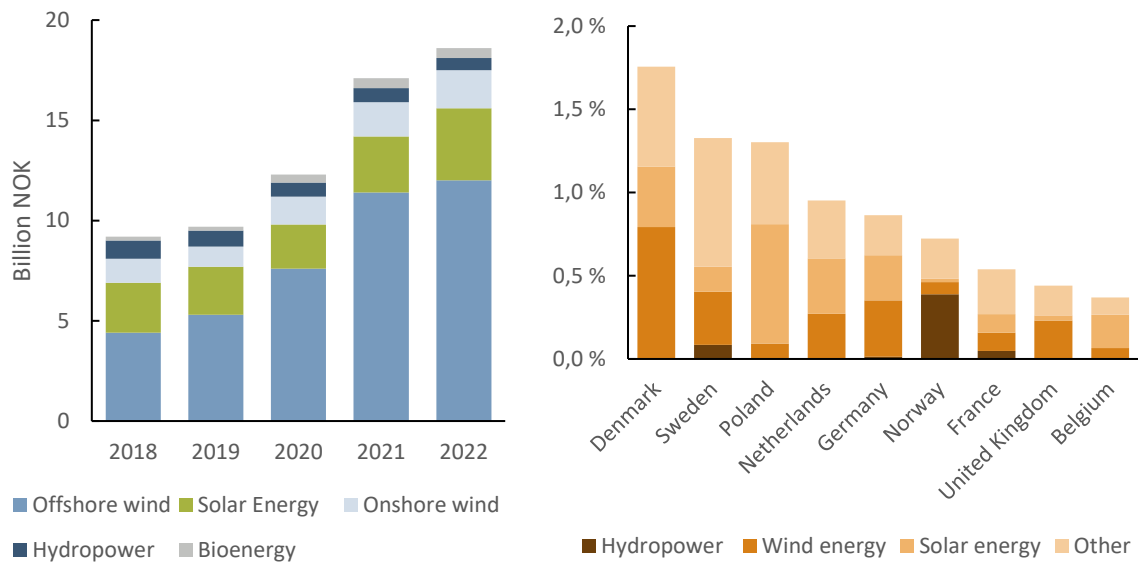
As shown in the figure above, the employment effects are highest in Oslo, where nearly 80,000 jobs are supported by exports. The indirect effects constitute a larger share in the larger counties, such as Oslo and Akershus, while smaller (and more export-intensive) counties, such as Møre og Romsdal, Nordland, Troms, and Finnmark, have a higher proportion of direct effects. In the report, we also look at the relative importance of export jobs in each county. Here we find that Møre og Romsdal is the county where export is most significant business contributor, with one in four jobs in the private sector being directly or indirectly associated with non-oil and gas exports. In the remaining counties, the employment effects account for between 13 and 18 percent of total employment.

Green Export: Norway Lags Behind but Has Great Potential

The first additional chapter of this report focuses on Norway's green export. In the period from 2018 to 2022, Norwegian renewable exports have doubled, from 9.1 to 18.6 billion NOK, as shown in the figure below to the left. This is based on an analysis conducted by Multiconsult that covers the value chains related to offshore wind, solar energy, onshore wind, hydropower, bioenergy, and hydrogen. Suppliers to offshore wind exported for around 12 billion NOK in 2022, thus accounting for about two-thirds of the exports in the renewables industry.

In the report, we have also examined the size of renewable energy sector at home relative to key trading partners. Even though Norway's renewable exports have doubled in the last five years, Norway has, relatively speaking, significantly lower green export than other comparable countries. This has been demonstrated in previous Export Reports and is supported by the figure to the right below, which shows renewable jobs as a proportion of the total workforce in comparable countries. Although renewable jobs are not exclusively linked to exports, it is an indicator of the industry's competitiveness and size.

Figure D: Left: Norwegian export from renewable industries over time. Source: Multiconsult. Right: Share of jobs in renewable technologies of the country's total workforce in 2022, by selected renewable technologies. Source: IRENA (2023) and Eurostat, analysed by Menon Economics.



0.72 percent of Norway's workforce is associated with the renewable industry. This represents nearly 20,000 jobs in 2022. However, more than half of these work in hydropower, where the proportion of exports is somewhat lower than the other industries shown in the figure. By comparison, other European trading partners such as Denmark, Sweden, and Poland have a much higher share of renewable jobs at over 1 percent of respective workforces. These are also more export-oriented than the Norwegian renewable industry.

Although Norway currently lags behind several of its neighbouring countries, significant market opportunities exist within key green value chains in Europe. In our report, we examine the potential for three of the most important green export industries: suppliers to the offshore wind market, production of low and zero-emission hydrogen, as well as the value chain for battery production.

- In the **offshore wind market**, Norwegian suppliers' opportunities are particularly significant in markets heavily investing in floating offshore wind, such as the United Kingdom, Ireland, and France. Norway's competitive advantage in offshore expertise, topography, and short geographical distance to European markets will be important in the export drive for offshore wind.
- For **low and zero-emission hydrogen**, the export potential is linked both to equipment deliveries (electrolysers for green hydrogen) and the production of green and blue hydrogen. Access to renewable energy and natural gas as well as technological expertise, are two of Norway's most significant competitive advantages in the hydrogen effort. Germany, with whom Norway has already entered a cooperation on hydrogen, stands out with its considerable plans and a large end-user market in the country's industry.
- For the **battery industry**, Norway can play a significant role in making the EU/EEA self-sufficient in batteries. Access to minerals, inexpensive green power and high expertise in the chemical industry give Norway comparative advantages in the development of the battery industry.

Finally, we point out that this market potential is not automatically realised. Businesses, organisations, and the public support system should structure their initiatives and overseas networks towards these markets, to ensure that the market opportunities that exist are leveraged. In our report, we provide an overview of Norway's overseas network in relevant European countries.

Service exports are a more important part of Norwegian exports than initial export data suggests

The second additional chapter addresses the significance of Norwegian service exports. Both globally and in Norway, services account for just over 20 percent of total exports. However, this traditional measure of trade in goods and services underestimates the importance of service exports. Indirect exports, that is suppliers and subcontractors of goods and services to the companies that export, are not captured by traditional measures of export. Nevertheless, they are important when considering value creation or employment enabled by Norwegian export. If we include indirect exports and measure the contribution of exports to GDP, the importance of service exports becomes far more apparent. We estimate that service exports, measured in this way, constitute 65 percent of Norwegian exports excluding oil and gas.

The sector contributing the most to Norwegian service exports is the maritime industry. The industry exported services worth 190 billion NOK in 2023. Following the maritime industry, business services, ICT, tourism, and offshore suppliers were the largest service exporters with values of 90 and 50, 50 and 45 billion NOK, respectively. These services are primarily delivered as cross-border services. Norwegian service exports have experienced slower growth over the last 10 and 20 years compared to other European countries. This may be due to Norway having stricter requirements for service trade than these countries. However, the export value of Norwegian service exports per employed person is relatively similar to other comparable European countries.

“Cornerstone companies” are essential for many local communities and form the basis for indirect exports

The third additional chapter highlights the importance of cornerstone companies, which play a pivotal role in many local communities and municipalities. We attempt to quantify this by examining the economic impact these companies have, both locally and nationally, through contribution to GDP, employment, tax revenues, and indirect exports. Based on our definition of cornerstone enterprises, we have identified 62 Norwegian cornerstone companies. In total, these cornerstone companies accounted for approximately 57 billion NOK in GDP contribution and there were around 25,000 people employed in cornerstone enterprises in 2022. Cornerstone companies belong to a wide range of sectors, but the energy-intensive industry is the largest sector in terms of value creation from cornerstone enterprises. In 2022, 21 billion NOK (37 percent) of the value creation from cornerstone enterprises was associated with the energy-intensive industry. The companies are also significant contributors in terms of tax intake for the state and municipalities. In 2022, Norwegian cornerstone enterprises contributed approximately 12 billion NOK in tax revenues. Around 10.3 billion NOK of this went directly to the state, while approximately 1.3 billion tax NOK went directly to the municipality through personal taxation.

Based on interviews and further analyses, we find that Norwegian cornerstone companies also support vital export income through indirect exports. This occurs primarily through two channels. The first channel is through local procurement of goods and services, and the second channel is through skills development, leading to the cornerstone companies' suppliers themselves starting to sell goods and services in the international market. This implies that the presence of cornerstone companies contributes to the development of new specialised exporting enterprises. In addition to the indirect exports, the cornerstone companies are also active members of their local community. We have prepared three cases that highlight this mechanism.