Critical Minerals Review of Norway 2026

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Abstract

Since 2023, the International Energy Agency (IEA) has been conducting Critical Minerals Reviews (CMRs) as part of its Critical Minerals Security Programme, which includes the *Critical Minerals Review of Norway 2026*.

These in-depth country reviews study domestic short-, medium- and long-term critical minerals policies and measures that aim at increasing resilience of critical minerals supply chains but also preparedness and risk management towards supply disruptions.

Reviews are designed to highlight effective policy practices on critical minerals by assessing countries' current domestic work and policies on critical minerals supply chains, as well as any existing measures that ensure preparedness and resilience. For producer economies it is aimed at identifying possibilities to boost domestic output, also through expanded midstream and in general add to global market ordering.

The CMR process has been inspired by the experience from peer reviews that the IEA has conducted for decades, Emergency and Security Reviews and Energy Policy Reviews, which brought helped IEA Member countries and beyond set common security standards.

Acknowledgements, contributors and credits

The review team visited Oslo on 3-6 November 2025 and met with government officials and public and private sector stakeholders across the critical minerals sector. This report is based on information from these meetings, the review team's assessment of Norway's critical minerals policy and detailed research by the International Energy Agency (IEA). The review team members were Julio Pajares Rivas (Spain); Tommi Tyrväinen (Finland); and Miłosz Karpiński, Erica Robin and Eléonore Carré from the IEA Secretariat.

The Critical Minerals Review of Norway 2026 was prepared by the Energy Security and Emergency (ESE) division of the IEA. Miłosz Karpiński and Eléonore Carré managed the review and are the main authors of the report. Erica Robin provided input on statistics and data. Keisuke Sadamori and Jason Elliott provided strategic guidance. The report also benefited from input from Alara Kocabas and review from the Critical Minerals Division (CMD). Liv Gaunt managed the editing process, Isabelle Nonain-Semelin and Astrid Dumond managed the production process. Poeli Bojorquez managed the design process. Erin Crum edited the report. Lily Weaver supported the organisation of the review team's visit.

The review team is especially grateful to Randi Skirstad Grini for her tireless efforts co-ordinating the review visit from Oslo. The review team also extends its appreciation to Sigrid Dahl Grønnevet, Hege Sandvik, Fredrik Norman and Erlend Opstad and other colleagues from the Ministry of Trade, Industry and Fisheries, as well as colleagues from the Directorate of Mining, the Ministry of Climate and Environment, the Ministry of Local Government and Regional Development, the Geological Survey of Norway, the Norwegian Environment Agency, Statistics Norway, and the Ministry of Energy.

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Executive summary

This report presents a comprehensive review of Norway's approach to securing a stable and sustainable supply of critical minerals, undertaken by the International Energy Agency (IEA) alongside peer experts from Spain and Finland. The review team visited Norway in November 2025, engaging extensively with government officials, private sector stakeholders and representatives across the entire critical minerals value chain. The primary objective was to assess the effectiveness of Norway's policy frameworks, operational challenges and strategic ambitions in relation to national and international critical minerals supply, with a particular focus on governance, co-operation and innovation.

The review team's analysis covered Norway's end-to-end approach, encompassing exploration, extraction, refining, recycling and downstream integration into advanced industries. The country's innovation ecosystem is marked by significant investments in areas such as mine tailings management, brownfield redevelopment and battery recycling facilities. Norway's regulatory environment, while robust, presents certain challenges – particularly in the complexity and length of permitting processes – which have implications for timely resource development and investment attraction.

Norway occupies a vital position within the European and global critical minerals supply chain. The country is endowed with significant geological resources and has developed expertise in mining, processing, recycling and trade of minerals essential to emerging clean energy and digital technologies. As the demand for minerals such as cobalt, lithium and rare earth elements accelerates – driven by the growth of batteries for electric vehicles, renewable energy infrastructure and advanced manufacturing – Norway's role as a supplier becomes increasingly important for domestic, European and international markets. The review highlights Norway's efforts in advancing these sectors, including investments in mine tailings management, brownfield redevelopment and battery recycling facilities.

Norway has demonstrated a commitment to aligning its critical minerals development with broader climate and environmental objectives. Efforts to protect local communities and natural habitats are central to policy considerations, and ongoing stakeholder engagement has been prioritised to ensure that projects are socially acceptable and environmentally sound.

While Norway does not currently have a dedicated policy document specifically for critical minerals, the government has implemented a suite of policies aimed at securing supply, setting clear priorities, and monitoring progress across ministries and agencies. The review highlights the importance of coherent governance and cross-sectoral co-operation as essential pillars for the effective management and implementation of national mineral strategies. Norway's alignment with the European Union (EU), North Atlantic Treaty Organization (NATO) and United States critical minerals lists ensures coherence with international standards and positions the country as a reliable partner for European and global supply chains.

The IEA review identifies several areas of strength in Norway's approach. These include its substantial geological potential, its advanced innovation and recycling sectors, and its active participation in European policy frameworks. Furthermore, the country's ambitions to advance battery technology, promote electric vehicle adoption and support the circular economy are noted as forward-looking and promising. However, the review also points to areas requiring attention, such as simplifying and expediting permitting procedures, increasing public funding and risk-sharing for mining and processing projects, and setting explicit economic targets and milestones for the sector.

The review concludes that Norway stands at a strategic crossroads. Decisive policy action, targeted investment in innovation, and enhanced stakeholder collaboration will be critical for Norway to secure its position as a leader in sustainable critical minerals supply. By continuing to align development with environmental and social objectives, and by strengthening governance and cross-sectoral cooperation, Norway can support both its national economy and the broader transition to clean energy and digital technologies across Europe and beyond. In summary, Norway's critical minerals sector is well-positioned to support the clean energy transition and industrial growth. By addressing the identified challenges and capitalising on its strengths, Norway can play a pivotal role in securing the mineral resources required for Europe's green and digital future.

Norway has developed specialised expertise through over fifty years of continental shelf exploration. As a result, the nation supports knowledge- based and sustainable ocean management. With substantial experience and robust frameworks for ocean-based resources, Norway is well-positioned to pursue seabed mining opportunities responsibly. The Norwegian government demonstrates careful consideration of potential seabed mineral activities and maintains rigorous emissions and environmental standards.

Recommendations

The review team recommends Norway to:

1. Define the expected role of the critical minerals sector in Norway's national economy, together with explicit targets and milestones as well as instruments to achieve these objectives.

2. Consider introducing solutions to the currently complex and time-consuming permitting process for critical minerals projects. These could include leveraging the expertise of public institutions in supporting local communities in the land-use planning process, introducing time limits for resolving permitting applications and judicial appeals.

3. Advance seabed mining opportunities for critical minerals supply throughout the broad exploration phase, applying robust environmental safeguards, before making a final decision on commencing the production phase when politically and technologically confirmed.

4. Aim at strengthening the mineral mining and processing industries in Norway through increasing available funding especially at pilot, scale-up and commercialisation stages and consider sharing risk with investors. Consider introducing extended commercialisation periods for critical minerals projects in terms of public financing eligibility and reporting, to increase investors' interest.

5. Work towards having a centralised overall view of the critical mineral data flows for the country and accelerate geophysical mapping coverage of the mainland. Consider designing a more structured approach to identifying key data and the timeline needed by the administration so that the statistics programme and relevant inter-institutional exchanges can be adapted accordingly.

6. Undertake targeted actions towards defining the role Norway seeks to play in the global critical minerals supply chain as a producer and a strong promoter of environmental, social and governance (ESG) standardised supply of critical minerals to make clean transitions truly sustainable.

7. Set quantitative and ratio targets for mineral recycling and secondary supply value chain to add to an extensive Norwegian circular economy priority and create value within a sustainable business framework.

8. Conduct a broad and targeted information campaign among the Norwegian public to raise awareness of the role that critical minerals play in the energy transition and modern technologies in strategic sectors such as energy, high-tech and defence to gain greater public acceptance for critical minerals projects.

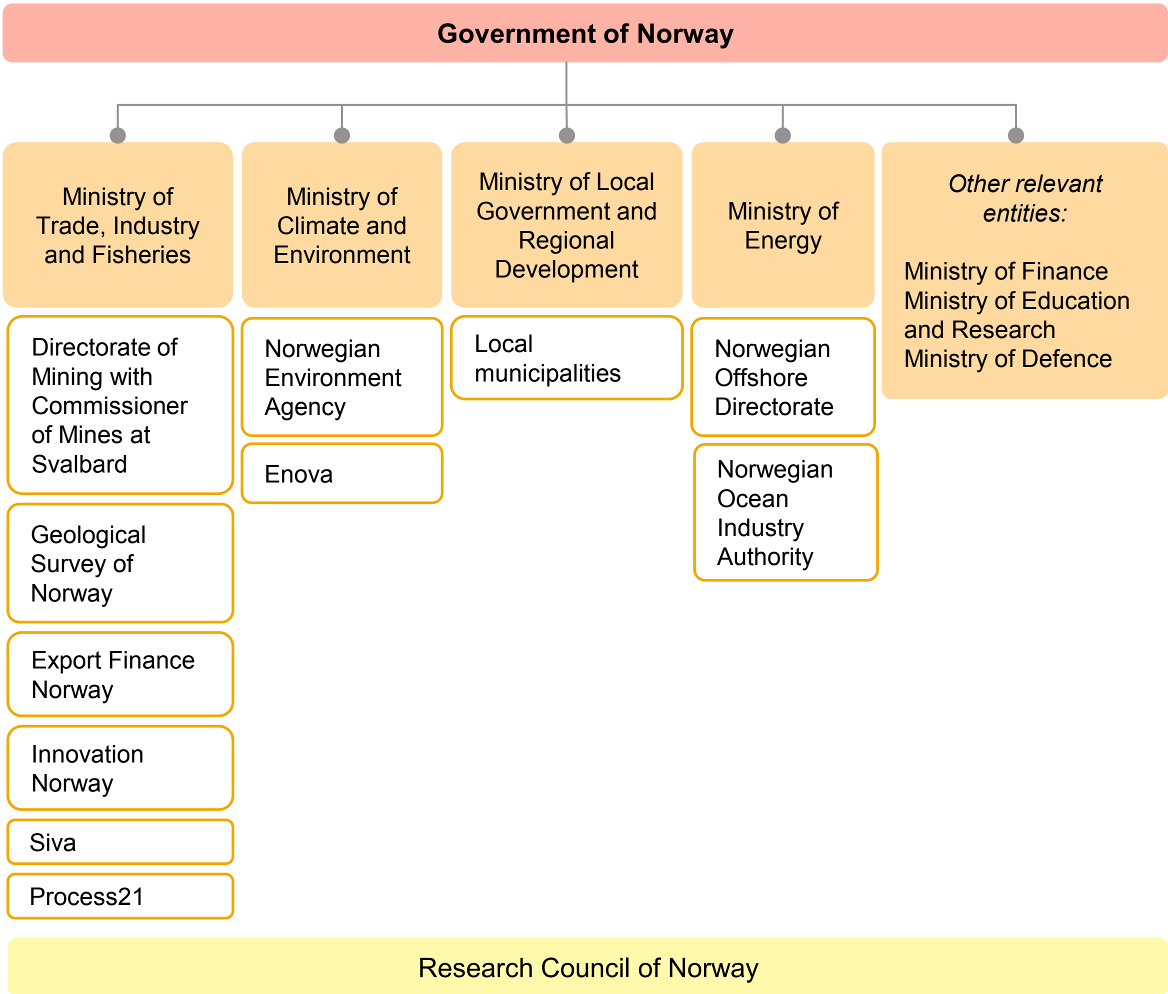
Governance and policy

Institutional overview

Multiple ministries and agencies are involved in the governance of critical minerals in Norway. Responsibilities are distributed across several entities, each overseeing different aspects of policy, permitting, data and environmental regulation.

While Norway does not yet have a centralised governance framework for critical minerals, these entities collectively shape the regulatory and strategic landscape.

Norwegian government structure and institutions involved in critical minerals policy



Source: Government of Norway, 2026, as modified by the IEA.

The Ministry of Trade, Industry and Fisheries (*Nærings-og fiskeridepartementet*) is the lead ministry for mineral policy in Norway. It oversees the Norwegian Mineral Strategy and the white paper on industrial policy, and is responsible for the Minerals Act. The ministry co-ordinates industrial development, resource management and innovation policy, including Norway's engagement with European Union (EU) and international critical raw material (CRM) frameworks.

The Directorate of Mining with the Commissioner of Mines at Svalbard (*Direktoratet for mineralforvaltning med Bergmesteren for Svalbard* [DMF]) is an agency under the Ministry of Trade, Industry and Fisheries. It manages mining and exploration permits, resource management, and mineral production statistics. The DMF also operates the Mineral Compass, a tool integrating geological, environmental and infrastructure data for land-use and exploration planning, supporting policy making.

Geological Survey of Norway (*Norges geologiske undersøkelse* [NGU]) is responsible for geological mapping and data dissemination. It provides deposit-specific information and geological maps, including for critical minerals, supporting exploration and policy making.

Export Finance Norway (*Eksfin*) provides export-related loans and guarantees. It also represents Norway in the Minerals Security Partnership (MSP) Finance Network, helping Norwegian CRM companies access international financing aligned with environmental, social and governance (ESG) standards.

Innovation Norway (*Innovasjon Norge*) promotes entrepreneurship and industrial growth. It represents Norway in the MSP Finance Network and supports CRM-related business development and international collaboration.

Siva (*Selskapet for industrivekst* [Industrial Development Corporation]) develops infrastructure for innovation and industrial transformation. It supports regional development and industrial clusters, including those relevant to CRM value chains.

Process21 provides advice and recommendations on how Norway can best reduce emissions from the process industry by 2050 and at the same time facilitate sustainable transition, growth and value creation.

The Ministry of Climate and Environment (*Klima-og miljødepartementet*) oversees environmental regulation relevant to mining activities, including the Pollution Control Act. It ensures that CRM projects comply with national environmental standards and sustainability goals.

The Norwegian Environment Agency (*Miljødirektoratet*) is an agency under the Ministry of Climate and Environment, responsible for implementation of waste and pollution regulations. It handles environmental permits and discharge approvals for mining operations and contributes to environmental data collection and impact assessments.

Ministry of Local Government and Regional Development (*Kommunal-og distriktsdepartementet*) is responsible for the Planning and Building Act, which governs land-use planning.

The Ministry of Energy (*Energidepartementet*) is responsible for the implementation and enforcement of the Seabed Minerals Act as well as the energy policies for the process industry. The Ministry of Energy is also responsible for the domestic energy and water resources legislation, as well as the licensing of and issues relating to the development of renewable energy projects

The Norwegian Offshore Directorate (*Sokkeldirektoratet*) is a specialist agency under the Ministry of Energy responsible for, among other things, the management, collection and analyses of data from the Norwegian Continental Shelf, and provides the ministry with technical advice on acreage etc.

The Norwegian Ocean Industry Authority (*Havindustritilsynet*) is a government supervisory and administrative agency with regulatory responsibility for safety, the working environment, emergency preparedness and security among other things for seabed minerals.

The Norwegian Water Resources and Energy Directorate (*Norges vassdrags-og energidirektorat*) is a directorate under the Ministry of Energy and is responsible for the management of the Norwegian water and energy resources. It handles licences for renewable energy projects, both new projects and changes in existing licences. Where the construction of a renewable energy project affects mineral resources, the directorate takes this into account in the licensing process.

Other relevant institutions include:

- **Statistics Norway (*Statistisk sentralbyrå*)** is the national statistical office, providing official data on industrial activity, including mining. It contributes to the broader data ecosystem used for policy design and monitoring.
- **Research Council of Norway (*Forskningsrådet*)** supports research and innovation across sectors, including CRM-related research and development (R&D). It is funded by the Ministry of Education and Research and funds projects that contribute to sustainable mineral development and technological innovation.
- **Ministry of Defence (*Forsvarsdepartementet*)** has recently shown interest in critical minerals, particularly in relation to national stockpiling and strategic resource security. While not a primary actor in CRM policy, its role is growing in importance due to geopolitical and supply chain concerns.

Mineral scope

Norway does not have its own list of critical minerals but considers the European Union and North Atlantic Treaty Organization (NATO) lists as relevant. As a member of the MSP, Norway also considers the United States' lists of critical materials for energy and critical minerals.

Norway has an established mining industry onshore and has established a management strategy for its seabed mineral resources. As there are different regulatory frameworks and different institutions responsible for onshore and seabed minerals, and seabed mineral activities have not yet commenced, this topic is addressed in a separate chapter.

List of European Commission critical raw materials

17 strategic raw materials	
• Bauxite/alumina/ aluminium • Bismuth • Copper • Gallium • Magnesium metal • Manganese* • PGMs • REEs for permanent magnets (Nd, Pr, Tb, Dy, Gd, Sm, Ce)	• Tungsten • Boron (metallurgy grade) • Cobalt • Germanium • Lithium* • Graphite* • Nickel* • Silicon metal • Titanium metal
16 additional critical raw materials	
• Antimony • Arsenic • Coking coal • Feldspar • Helium • Niobium • Scandium • Strontium	• Baryte • Beryllium • Fluorspar • Hafnium • Phosphate rock • Phosphorus • Tantalum • Vanadium

* Battery grade

Note: PGMs = platinum group metals; REEs = rare earth elements; Nd = Neodymium; Pr = Praseodymium; Tb = Terbium; Dy = Dysprosium; Gd = Gadolinium; Sm = Samarium; Ce = Cerium.

Source: European Parliament (2024), Regulation EU 2024/1252.

List of NATO defence-critical raw materials

12 critical minerals	
• Aluminium • Beryllium • Germanium • Graphite • Platinum • REEs	• Cobalt • Gallium • Lithium • Manganese • Titanium • Tungsten

Note: REEs = rare earth elements.
Source: NATO (2024), NATO releases list of 12 defence-critical raw materials.

Policy overview

Although Norway does not currently have a dedicated national policy for critical minerals, the government has launched several strategic initiatives that provide for a robust framework for the critical minerals sector and onshore mining industry to develop in the country.

The National Security Strategy, published on 8 May 2025, outlines Norway's approach to resilience and preparedness, including resource security. It identifies economic security and access to strategic raw materials as key pillars of national resilience, emphasising the need for secure supply chains and reduced dependency on countries with which Norway lacks security co-operation. The strategy highlights the importance of industrial production capacity, stating that securing access to CRMs and industrial capabilities is vital for both Norway and Europe. The prime minister's office is responsible for monitoring, evaluating and updating the National Security Strategy.

The Norwegian Mineral Strategy (responsibility of the Ministry of Trade, Industry and Fisheries) sets out goals for sustainable mineral development, permitting reform and improved data collection. The strategy aims to make Norway a global leader in sustainable mineral development. The Directorate of Mining with Commissioner of Mines at Svalbard is the subordinate agency tasked with implementing and enforcing the regulations, including issuing permits and monitoring compliance. It outlines five focus areas:

- accelerating project implementation through improved permitting and geophysical mapping
- promoting circular economy and resource efficiency
- strengthening environmental and social responsibility, including Sámi rights
- improving access to capital, including consideration of a state-owned mineral company or fund
- enhancing international co-operation and strategic partnerships.

The Battery Strategy (*Batteristrategien*) supports the development of battery value chains, including upstream access to CRMs. As part of the broader Green Industrial Initiative, it presents key measures to develop a coherent and profitable battery value chain, covering everything from raw material access to recycling. The strategy supports industrial growth, job creation and export potential, while aligning with climate goals. More specifically, it aims to generate NOK 90 billion (Norwegian kroner; Exchange rate: 1 USD = 9.92 NOK) in turnover and create tens of thousands of jobs by 2030.

In spring 2025, the Norwegian government presented a white paper on industrial policy titled "The Norwegian industry – competitiveness for a new time". While not focused specifically on critical minerals, the white paper outlines broader priorities (market access, security and emergency preparedness, access to land and infrastructure, access to capital, access to clean and affordable power, and access to competent workforce) for industrial competitiveness, innovation and green transition.

Additionally, the Ministry of Trade, Industry and Fisheries commissioned, in October 2025, Process21 and the Research Council to conduct a comprehensive mapping of Norwegian industry's role in strategic and critical value chains.

Yet Norway would benefit from defining the role that the government seeks to play for critical minerals in the national economy and introducing clear targets and milestones, as well as dedicated means to achieve these objectives. This approach may ease the implementation of the EU Critical Raw Materials Act (CRMA) into Norway's national law, as part of the European Economic Area (EEA) agreement. This would send a clear signal to Norway's partners in Europe and around the world that Norway wants to achieve ambitious goals in the field of critical minerals, supporting clean energy manufacturing and the energy transition. A clearly defined role for Norway and strong implementation milestones will help untap Norway's potential in the critical minerals sector and shield the country from supply risks.

Legal frameworks supporting critical minerals governance

Several laws establish Norway's regulatory environment for mineral development onshore:

The Minerals Act governs exploration, extraction and reporting obligations for mineral activities. Concerning ownership rights to mineral deposits in Norway, there are two categories: state minerals and landowner's minerals, with different exploration and extraction rights.

A major revision of the act was adopted in 2025, replacing the previous version from 2009. The **new Minerals Act** will enter into force in **July 2026**. The key changes include:

- **Streamlined permitting:** A new sequence requirement improves co-ordination across permits and reduces duplication in assessments.
- **Unified exploration permit:** One exclusive permit now covers state-owned minerals, industrial minerals and light metals, simplifying project initiation.
- **Sustainability enhancements:** New reporting obligations for surplus materials promote better resource utilisation and circularity.
- **Sámi rights strengthened:** Compensation is required for extraction in traditional Sámi areas, with protections extended beyond Finnmark to all Sámi territories.
- **Improved data provisions:** The act includes updated requirements for data collection and sharing, covering both general and critical minerals.

The Planning and Building Act regulates land-use planning, including for mining projects (the Ministry of Local Government and Regional Development and local municipalities are responsible for land-use planning) (see "Permitting" section below).

The Pollution Control Act ensures environmental safeguards in industrial and mining operations (responsibility of the Ministry of Climate and Environment, and the Norwegian Environment Agency is the subordinate agency tasked with implementing and enforcing these regulations, including issuing permits and monitoring compliance).

The Waste Regulation is a specific regulation issued under the authority of the Pollution Control Act, regulating the treatment of waste streams that are relevant for CRM recovery, such as:

- Discarded vehicles.
- Battery waste.
- Waste electrical and electronic equipment (WEEE), currently under evaluation for CRM inclusion.

The review team recommends Norway to:
Define the expected role of the critical minerals sector in Norway's national economy, together with explicit targets and milestones as well as instruments to achieve these objectives.

Planning and permitting

Obtaining plans and permits for critical mineral activities in Norway is a complex, lengthy and difficult process, which puts Norway on a par with many other countries, but it is a significant factor delaying the possible exploitation of critical mineral deposits in the country.

An additional element of complexity for Norway is the fact that, although the country has been a leader in oil and gas production for over 50 years, all of this activity takes place on the continental shelf rather than on the continent. Norway has a long history of mining, but very few new mining projects have been realised for several decades.

Multiple ministries and agencies are involved and interact with the local municipalities in the planning and permitting process in Norway. These institutions operate within a fragmented permitting system with limited co-ordination among agencies. In practice, the companies choose to apply for permits sequentially, and there are no legal obligations for parallel applications and permitting process.

Exploration and investigation of minerals and metals in Norway are regulated by the Minerals Act. In Norway, the principle of free prospecting is strongly upheld, meaning that anyone may search for minerals and metals, subject to the limitations set by the Minerals Act and other legislation.

According to the act, ownership rights to mineral deposits in Norway are divided into two categories: **state minerals** and **landowner's minerals**.

- **State minerals** include metals with a specific gravity higher than 5 grammes per cubic centimetre and their ores.
- Additionally, titanium, arsenic, pyrite and pyrrhotite are considered state minerals.
- However, alluvial gold is excluded from the state minerals category and, like all other minerals not classified as state minerals, is considered a **landowner's mineral.**

Step 1: Exploration and extraction rights

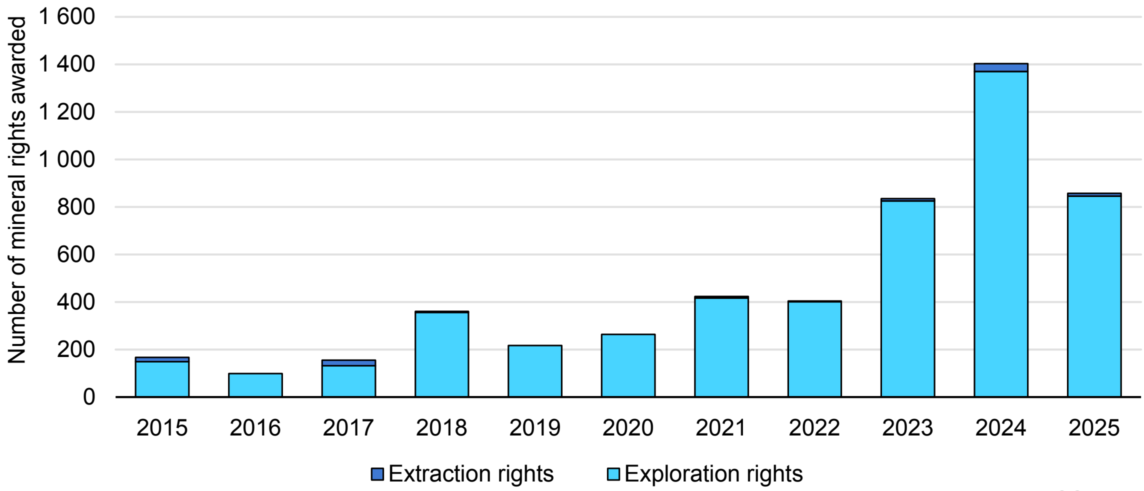
To explore for state minerals, a prospector must apply for an **exclusive exploration permit** from the Directorate of Mining (DMF). This permit grants the holder priority rights in a defined area and allows non-invasive investigations without requiring landowner consent. The current system is based on priority applications, but proposed amendments to the Minerals Act aim to simplify this by limiting rights to a single licence holder per area. Since 2021, exploration rights to state minerals can be granted only to enterprises that are registered in the Register of Business Enterprises. The right to explore expires seven years after being granted or when the extended period has expired.

Applications for extraction rights may start only if exploration rights have been granted (also awarded by the DMF) and if the applicant is able to demonstrate that they have found a viable deposit of the state's minerals. The right to extract expires ten years after being granted or when the extended period has expired.

For landowner's minerals, both exploration and extraction require a direct agreement with the landowner. Permitting for landowner's minerals is typically more fragmented and may involve multiple authorities depending on the mineral type, location and environmental considerations. The prospector may apply for expropriation if negotiations with the landlord fail, but this process is typically complex and lengthy.

As of February 2025, Norway had awarded 2 390 mineral rights, divided into 2 194 exploration rights and 196 production rights. In the first two months of 2025, the DMF awarded 362 new exploration rights and 3 new production rights.

Number of mineral rights awarded in Norway, 2015-2025



Source: Norway, Ministry of Trade, Industry and Fisheries, Directorate of Mining (2025), Mineral rights and exploration costs, as modified by the IEA.

The right to extract does not in itself give the right to start operating a mineral deposit. In order to start regular operation of a deposit, the following steps are necessary.

Step 2: Use of land or zoning plan

The municipal master plan and zoning plans, under the Planning and Building Act, are **decided by municipalities** and can be appealed to the Ministry of Local Government and Regional Development by the Regional Council and state agencies. The zoning plan regulates the use of land in detail, and is required for onshore mining operations for critical minerals and is usually associated with an environmental impact assessment. The Municipal Council makes the final zoning plan decision based on the political principles of the local community's prevailing sentiment. In 2015, the municipalities were given the opportunity to stop the planning process in an early phase. This decision did not have to be justified to the prospector – who had already invested significant resources in initial prospecting and preparing formal application. Out of the 357 municipalities in Norway, some have a very low population density and may lack competence or capacity when it comes to taking mining projects decisions or even properly assessing their impact on the local community in the long run.

It would be extremely important for the Norwegian government, through its institutions, to have at least an advisory role in the process of making preliminary location decisions for critical minerals projects by the Municipal Councils.

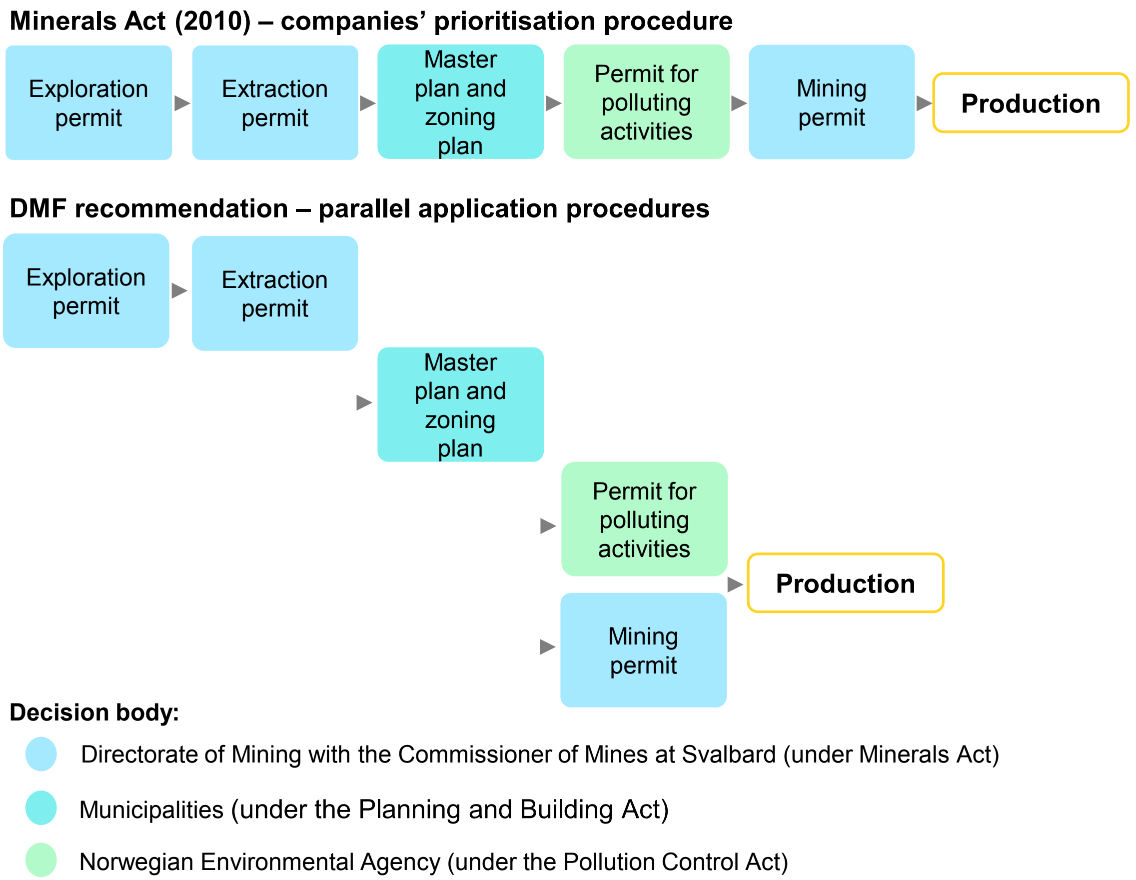
Step 3: Permit for polluting activities

The permit for polluting activities, which falls under the Pollution Control Act, is **decided by the Norwegian Environmental Agency**, and is subsequent to the local Municipal Council's initial zoning decision. In addition, any permit for polluting activities can be appealed to the Ministry of Climate and Environment.

Step 4: Mining permit

The mining permit comes at the end, should the previous steps be successful for the prospector. It is governed under the Minerals Act, and decided upon by the DMF, and can be appealed by the Ministry of Trade, Industry and Fisheries.

Prioritisation and recommendations for permitting process for mining projects



Note: Only a few mining projects in Norway have gone through the procedure outlined in the existing regulatory framework.
Source: Norway, Ministry of Trade, Industry and Fisheries, Directorate of Mining, 2026, as modified by the IEA.

Several permits are needed to open a new mine, and the total permitting process takes several years and is very costly for investors. Streamlining procedures to obtain permits for the onshore extraction or processing of critical minerals in Norway is essential to attract investments and accelerate the development of the domestic critical minerals supply chain.

The new Minerals Act 2026 introduced an updated sequential requirement between the Planning and Building Act and the Minerals Act. As much of the foundation for other permits is developed during the zoning plan approval process, once the latter is granted, project owners can apply for other required permits simultaneously and therefore potentially reduce the timescale of the overall process. The new Minerals Act obliges authorities to co-ordinate application processing and provides clearer guidance on the use of parallel application procedures.

Yet even after all permits are granted, there does not seem to be a time limit for the licence to be challenged/appealed in a court. This undermines investors' willingness and desire to develop projects.

During the review visit, it was emphasised by stakeholders from the private sector that the Norwegian government is very supportive to private entities in the critical minerals industry, albeit procedures are sometimes long and complex. Increasing stability and predictability of investments in critical minerals in Norway could be achieved by offering neutral support and objective assessments for municipalities that may be reluctant to approve critical minerals projects, as well as setting up a time limit for the overall permitting process and judicial appeals.

Norwegian authorities have extensive experience with effective licensing systems on the Norwegian continental shelf in areas such as oil and gas. The system in oil and gas is based on the principle that the state owns the resources on the shelf, while private companies carry out the work on behalf of the state – a so-called principal-agent system. In addition, there are usually few other interests in the sea areas on the Norwegian shelf. This means that there are fundamental differences between the onshore and offshore systems. The transfer value from offshore oil and gas to land-based industry appears limited.

The review team recommends Norway to:
Consider introducing solutions to the currently complex and time-consuming permitting process for critical minerals projects. These could include leveraging the expertise of public institutions in supporting local communities in the zoning plan decisions process, and introducing time limits for resolving permitting applications and judicial appeals.

Seabed mining

In parallel to the onshore initiatives mentioned already, Norway has established a management strategy for its seabed mineral resources.

Norway boasts a unique set of skills acquired through more than 50 years of continental shelf exploration. Thanks to this, the country is committed to knowledge-based and sustainable ocean management which balances conservation and sustainable use of ocean resources. This, coupled with extensive experience and well-established management for the oversight of ocean-based resources within a sustainable framework, puts Norway in a unique position to explore seabed mineral opportunities. The current Norwegian government has shown a great deal of respect to the possible seabed mineral activities and committed to very strict emissions and environmental requirements, same as for its offshore oil and gas production.

Norway has the ambition to become a world leader in fact- and knowledge-based management of seabed minerals, all while establishing and maintaining clear and predictable framework conditions and maintaining ongoing work on resource mapping, knowledge building and R&D.

In 2025, the Norwegian government allocated 5% of its energy R&D funding to seabed mineral activities, resulting in the first dedicated call for collaborative and knowledge-building projects for seabed minerals by the Research Council of Norway. Seabed mineral activities also fall under the scope of Energi2050, the new national strategic body for research, development, demonstration and market introduction across the entire energy sector in Norway.

The Norwegian Offshore Directorate published a resource assessment in 2023 which concludes that substantial mineral resources are present on the seabed in the deeper parts of the Norwegian continental shelf. The Norwegian continental shelf contains sulphide deposits, which mainly contain lead, zinc, copper, cobalt, gold and silver. Manganese crusts have also been identified and contain mostly manganese and iron, with smaller amounts of cobalt, nickel, titanium and rare earth elements.

The Norwegian government has already established a legal framework. The Seabed Minerals Act entered into force in July 2019 and complemented by five executive regulations in 2025. The Seabed Minerals Act falls under the authority of the Ministry of Energy, supported by the Norwegian Offshore Directorate for regulation on data collection and documentation for mineral activities on the continental shelf, and the Norwegian Ocean Industry Agency for regulation on safety and working environment. Pollution from seabed mineral activity also needs permits from the Norwegian Environmental Agency, under the Ministry of Climate and Environment.

According to the Seabed Minerals Act, to be able to issue any exploration licences, the Norwegian Government (King in Council) must first formally open a defined area on the Norwegian Continental Shelf for mineral activities. Before opening any area, the Ministry of Energy is legally required to conduct a strategic environmental assessment (SEA) covering environmental, economic and social effects. Once an area is opened, companies can apply for an exploration licence, lasting typically up to five years, allowing geological and geophysical surveys and sampling under specific work programmes and safety and environmental conditions.

An exploration licence does not convey exclusive exploration rights and does not allow extraction. After the opening of an area, companies can also apply for exploitation licences which give the licensee an exclusive right for exploration within a defined area. Such licences are granted with a work programme which the licensees must carry out, and which is aimed at providing more information about the viability of possible exploitation. If a licensee holding an exploitation licence wishes to move forward with seabed mineral production, the licensee must apply for approval of a plan for exploitation, including a project-specific environmental impact assessment (EIA) before any seabed mining is approved. The first plans for exploitation shall also be presented to the Storting for approval.

The Norwegian parliament, the Storting, supported opening up area on the Norwegian continental shelf for seabed mineral activities, in addition to establishing a management strategy for these resources, on 9 January 2024. The area was opened by King in Council on 12 April 2024. The opening enables the government to award both exploration and exploitation licences. **The first phase of operations for critical minerals on the Norwegian continental shelf under any exploitation licence will be exploration**. Opening means that Norwegian authorities may grant licences to commercial actors for exploration of mineral deposits within that area of the continental shelf. Exploitation may be authorised later only if the necessary requirements under Norwegian law are fulfilled. Exploitation and production will depend on further assessment by the government and separate permitting processes.

The review team paid close attention to Norway's decision to open an area for seabed mineral activities, and its plans to make certain identified parts of this area available for commercial exploration and mapping, and considered this an important element in the development of new critical mineral resources, especially since private companies have expressed their willingness to invest their own funds in this project.

The first licensing round was on public consultation in 2024, but on 3 December 2025, following a political compromise as part of the negotiations of the national budget for 2026, Norway’s government confirmed that it will not announce the first licensing round for deep-sea mineral activities during the current legislative term, which runs to the fall of 2029.

The review team recommends Norway to:
Advance seabed mining opportunities for critical minerals supply throughout the broad exploration phase, applying robust environmental safeguards, before making a final decision on commencing the production phase when politically and technologically confirmed.

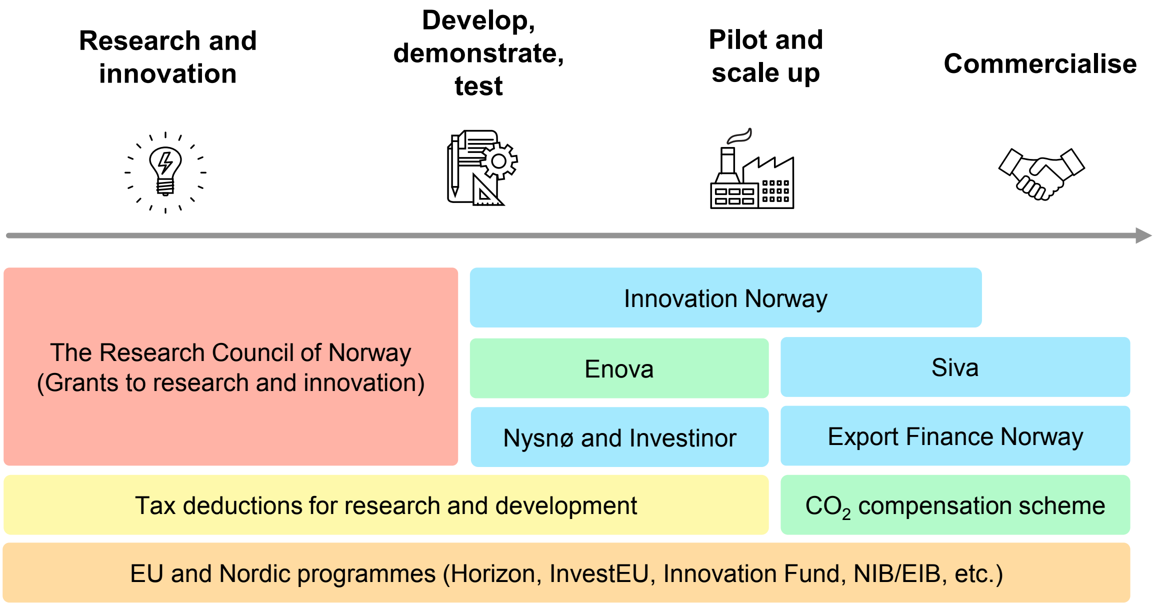
Public funding, research and development

Norway does not currently provide dedicated public funding for the critical minerals sector. Funding has been granted to particular projects according to the Norwegian Mineral Strategy, as part of the existing instruments. In 2025 the government allocated NOK 150 million for resource and environmental mapping of seabed minerals.

Most of the public funding closely related to critical minerals comes from the research, development and innovation activities. The existing R&D support system in the country consists of various national agencies and entities that in different ways aim to stimulate more research, innovation and value creation in the business sector. The public innovation support system provides businesses with access to financing, infrastructure, expertise and networks.

There has been a modest positive increase in public funding for R&D in the mineral industry, with approximately 10% annual growth during the period 2012-2023.

Entities supporting research and development in Norway



IEA. CC BY 4.0.

Note: NIB = Nordic Investment Bank; EIB = European Investment Bank.
Source: Government of Norway, 2026, as modified by the IEA.

The funding comes from the Research Council of Norway, Innovation Norway and the European Union, with the Research Council being the largest source of funding.

The Research Council of Norway implements the government's research policy priorities. Its portfolio of instruments spans the full spectrum from basic research to innovation-driven R&D and commercialisation. In the area of critical minerals, the Research Council co-funds projects such as EMINENT (Energy Minerals for the Net Zero Transition), which aims to develop sustainable technologies for deep-sea mineral extraction and processing, supporting the creation of a responsible value chain for critical minerals.

Another programme worth noting and administered by the Research Council (in collaboration with the Norwegian Tax Administration) is the SkatteFUNN scheme (Tax Deduction for Research and Development in an Innovative Business Sector). It is a rights-based tax deduction scheme for Norwegian companies, which can apply for a tax deduction of 19% of the costs associated with an R&D project. The Research Council maintains an overview of approved applications and their budgets, but the final tax deduction is calculated by the Tax Administration and is not publicly available. SkatteFUNN has been an important R&D incentive for the industry, providing annual tax relief ranging from NOK 1.7 million to NOK 7.5 million over 2012-2023.

The Research Council of Norway was tasked by the Ministry of Trade, Industry and Fisheries to provide a recommendation on a future R&D initiative for land-based minerals. The background for this mandate is the need to ensure access to raw materials for the green and digital transition, while at the same time safeguarding nature, local communities and Indigenous rights.

So far, R&D activity in the mineral industry has been low, and in recent decades there has been little continuity or public R&D support in areas relevant to Norwegian mineral extraction and industry. Although the overall R&D volume is low, the research themes cover the range of challenges in the sector. International R&D collaboration has been supported through a few grants under the Horizon Europe programme and other framework programmes.

The report highlighted six knowledge-intensive areas to focus on:

- development of solutions for exploration and mapping of mineral systems
- increased resource utilisation from mineral deposits, including the use of surplus materials
- more efficient and sustainable technology and digital solutions for mineral extraction (mining and processing)
- better understanding of the cumulative impacts of mineral activities on nature and biodiversity, including reindeer herding

- increased competence on mineral activities within the public sector
- development of good waste disposal (tailings) solutions.

Innovation Norway promotes value-creating business development nationwide, with a focus on fostering entrepreneurship, scaling growth-oriented firms and strengthening innovative clusters. Innovation Norway offers the opportunity to Norwegian businesses and industry to scale up their projects.

Export Financing Norway (Eksfin) provides loans and guarantees on market-based terms, both to foreign buyers of Norwegian goods and services and to domestic companies investing in projects expected to generate future export revenues. As legally stated, this tool requires a partner (must be a bank or consortium of banks) for the export finance institution, which is why it is not widely used by the mining sector. Mining companies tend to prefer seeking finance in bonds and financial markets with higher interest rates, as banks are less inclined to involve themselves (sustainability criteria and financial risk).

Innovation Norway along with Eksfin represents Norway in the MSP Finance Network (recently transformed into the **Forum on Resource Geostrategic Engagement [FORGE]),** a global initiative to mobilise public and private capital for sustainable critical mineral projects, aiming to connect Norwegian mineral companies with international opportunities on critical minerals, and has seen growing interest in supporting sustainable extraction and processing initiatives.

Siva develops and finances national infrastructure for innovation and industrial growth, with a particular mandate to foster business development in rural and less-developed regions. Through its real estate portfolio, Siva supports the competitiveness of Norwegian industry and facilitates long-term industrial transformation. Siva is also a co-founder of the EMINENT project, contributing to infrastructure and innovation support for sustainable mineral exploration and exploitation.

The **Norwegian CO_2 compensation scheme** provides financial support to energy-intensive industries, such as smelters, to offset the indirect cost impacts of the EU Emissions Trading System (ETS) on electricity prices. Designed to prevent carbon leakage, the scheme helps maintain industrial competitiveness while aligning with Norway’s climate commitments.

Norway also benefits from EU and Nordic initiatives. The EU programme Horizon Europe is a funding opportunity for research and innovation. Horizon Europe is the largest transnational research and innovation programme in the world, with a budget of EUR 93.5 billion (for the 2021-2027 period). Cluster 4 – Digital, Industry and Space is the most relevant section of the programme for projects that involve raw materials. Norwegian research institutions can apply to calls for proposals aimed at the mineral-based value chain on equal footing with businesses, public sector bodies and research institutions of other EU member states. The Research Council of Norway offers various support schemes to increase the chance of succeeding in the competition for EU funding. Innovation Norway has contributed to Norwegian applicants receiving funding from Horizon Europe for projects relating to critical raw materials.

Norwegian R&D communities and parts of the Norwegian industrial sector are currently participating in several European collaborative projects that focus on recycling critical raw materials from secondary sources. The Programme for User-Driven Research-Based Innovation (BIA), RENEW and NANO2021 are the most relevant involvements for the mineral industry. These R&D initiatives come in addition to Norway's commitments and potential within the European Co-funded Partnership on Raw Materials for the Green and Digital Transition (a programme under the Horizon Europe umbrella). The total budget for the partnership is EUR 300 million.

It seems reasonable to say that providing additional financing opportunities for projects involving critical minerals in Norway, especially at the pilot, scale-up and commercialisation phases, would reassure and reduce the risks taken by investors, and could prove to be a sensible approach to open the way to more projects in Norway.

This may take place in several dimensions, depending on the will and capacity of the Norwegian government and within the scope of legal regulations. The exploration, production and processing of critical minerals is considered a relatively new industry and somehow less mature than others, which is why a tailored approach with supportive financing schemes at all stages of development is important.

Yet, in Norway, most of the available public funding is eligible for shorter commercialisation periods than is possible for most critical raw materials projects. This decreases the relevance of the available instruments for the sector. Increasing access to public funding in the final stages of project development and early stages of investments can multiply investors' interest and trigger a technological leap forward.

The Norwegian government may wish to explore the establishment of a specialised fund to facilitate the development of critical minerals, utilising debt financing with repayment deferred until production commences, comprehensive government guarantees, or direct financial assistance for qualifying enterprises. In addition, consideration could be given to implementing non-financial mechanisms that distribute the risks inherent in the production or refinement of critical minerals. Examples include public entities taking equity positions in promising projects, entering into offtake agreements, or reserving future production volumes. Other ideas may come from the oil production scheme adopted in Norway. The Norwegian government has a significant direct interest (the State's Direct Financial Interest [SDFI]) in petroleum production and infrastructure on the Norwegian continental shelf, and state holdings are managed through a dedicated government-controlled agency (Petoro), to maximise the value of state interest for society.

The review team recommends Norway to:
Aim at strengthening mineral mining and processing industry in Norway through increasing available funding especially at pilot, scale-up and commercialisation stages and consider sharing risk with investors. Consider introducing extended commercialisation periods for critical minerals projects in terms of public financing eligibility and reporting, to increase investors' interest.

International collaborations

Multilateral

Norway participates primarily in non-binding international co-operation on critical minerals, focusing on strategic alignment, information exchange and project facilitation rather than direct funding. Two key platforms where Norway is active are the MSP and initiatives under the Nordic Council of Ministers.

The MSP was reframed as the Forum on Resource Geostrategic Engagement (FORGE) on 4 February 2026 launched by the United States to promote secure, sustainable and diversified supply chains for critical minerals essential to clean energy, defence and advanced technologies. Norway joined the MSP in 2023 and is represented in its Finance Network through Eksfin, Innovation Norway, and the Ministry of Trade, Industry and Fisheries. This network brings together public and private financial institutions to co-finance mineral projects that meet high ESG standards. Norway's participation aims to connect its mineral industry with global investment opportunities and standards, facilitating responsible development across the value chain, from extraction and processing to recycling and recovery. The MSP also enhances Norway's strategic positioning by strengthening supply chain resilience, reducing dependency on high-risk suppliers, and aligning with trusted partners on security, permitting and ESG frameworks.

Under the Nordic Council of Ministers, co-operation on critical minerals has gained momentum through several initiatives, though these remain largely strategic and exploratory. In 2024, Nordic business ministers signed a declaration to strengthen industrial partnerships around critical metals and minerals. The goal is to build resilient regional value chains, reduce import dependency and enhance the competitiveness in the green transition of the Nordic region (Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands, Greenland and Åland). The Nordic Working Group for Circular Economy, also under the Nordic Council of Ministers, has published reports highlighting the region's potential in critical raw material recycling. According to the reports, the Nordic region loses nearly 1 million tonnes of critical raw materials annually through waste, despite having strong potential for recycling due to advanced infrastructure and innovation capacity. Nordic countries also closely collaborate at the level of their respective geological surveys.

Norway also collaborates on critical minerals with multiple multilateral fora such as the Group of 20 (G20), the Organisation for Economic Co-operation and Development (OECD), the IEA, and NATO (for defence minerals), as well as the United Nations (UN) and the International Labour Organization (ILO), especially on Sámi rights.

Bilateral

Norway has signed several green industrial and strategic partnerships with key international actors, including the EU Commission, Canada, France, Germany, Italy, the United Kingdom and the United States, aimed at strengthening co-operation on critical raw materials. These agreements are largely non-binding, focusing on strategic alignment, joint investment facilitation and regulatory co-operation, but have yet to result in substantial follow-up on CRM-specific policy or funding.

- France, Germany, Italy, Japan, and the United Kingdom: Norway has entered into similar green industrial partnerships with these countries, focusing on clean energy, battery value chains and industrial decarbonisation.
- The United States: In 2024, Norway signed both a memorandum of understanding and a memorandum of co-operation with the United States (US). These agreements aim to promote high-standard, market-oriented trade of critical minerals, address non-market policies and practices, and strengthen supply chain resilience. The co-operation includes joint analysis of supply chain vulnerabilities and shared commitments to ESG standards in mining and processing. Additionally, the US Department of Commerce and the Ministry for Trade, Industry and Fisheries co-wrote a report on non-market policies and practices in the CRM sector. The report is mainly descriptive but contains a substantive overview of the Norwegian CRM sector.

The European Union is by far Norway's most important market, as around 65% of goods exports go to the European Union. Since 1994, and the EEA agreement between countries in the European Union and the European Free Trade Association (EFTA), there is free movement of goods, services, people and capital, which covers most industrial goods, including raw materials. However, the EEA agreement does not cover trade policy. Around 40% of EU demand for silicon and ferroalloys come from EFTA countries (Norway and Iceland) and 75% of EFTA production goes to the European Union. In August 2025, the European Commission introduced temporary safeguard tariffs on Norwegian ferroalloys due to concerns about low-priced imports.

In the European Union, the CRMA entered into force in May 2024. Norway is now working closely with the other EFTA states (Iceland and Liechtenstein) with the aim of incorporating the act into the EEA agreement as soon as possible. Once this process is finalised, the CRMA will become applicable as national law in Norway.

Regarding "strategic projects" under the CRMA, two Norwegian projects have been selected by the European Commission. Depending on the companies' needs, these projects will maintain close co-operation with the Commission.

- Blue Moon Metals: Focused on copper extraction in northern Norway
- GreenRoc Strategic Materials plc: Involved in graphite production and processing.

Moreover, in March 2024, Norway and the European Commission signed a Green Strategic Industrial Partnership under the broader EU-Norway Green Alliance. This partnership focuses on developing integrated value chains for land-based raw materials and batteries, facilitating joint ventures, research co-operation, and high ESG standards. It also aims to improve Norway's participation in EU regulatory development and industrial policy. Additionally, Norway participates in the EU co-funded Partnership on Raw Materials for the green and digital transition, which aims to co-ordinate national and regional research programmes across Europe to support the objectives of the CRMA. Through this partnership, Norway contributes to joint calls for research and innovation projects covering the entire raw materials value chain.

Data collection

The landscape for critical mineral data in Norway is spread over different institutions with varying levels of coverage, responsibilities and dissemination practices.

The **Geological Survey of Norway (NGU)** publishes geological maps and deposit-specific data, including for CRMs. Data from the geological survey on mineral resources fall under the remit of the NGU and are publicly disseminated through the website of the institution and via Geonorge – the portal for official Norwegian geodata. Data are also harvested to the European Geological Data Infrastructure (EGDI) and the Nordic Ore Deposit Database (NODD). Just above 50% of the mainland is covered with high-resolution geophysical data of a quality that meets the NGU's requirements for geophysical baseline data and the exploration industry's need for fundamental data for mineral prospecting. Other mapping methods (geochemical mapping, bedrock, mineral, etc.) have coverage with other percentages.

The **DMF** is responsible for resource management and mineral activities. It provides production data and information about closed mines, in addition to tools such as the Mineral Compass, which integrates geological data with information on social and environmental conflicts and infrastructure. It supports land-use planning for municipalities and exploration planning for industry.

The **Norwegian Offshore Directorate** is the government agency responsible for mapping and assessing seabed mineral resources on the Norwegian continental shelf. The directorate has carried out systematic geological surveys of deep-sea areas on the shelf since 2018. As part of this work, 84% of the area opened for mineral activities has been mapped with bathymetry, and 44% of the area opened has been mapped at a resolution of 25 metres or better. Data collected during offshore surveys are published on the directorate’s website within one month after each cruise is completed.

Official statistics are available through:

- Statistics Norway for monthly, quarterly and annual public industry-wide data.
- The DMF for annual mining sector-specific data, such as production volumes and sales values by mineral type, export figures, number of production sites, employment data, and Availability Analysis for metals and industrial minerals via the Mineral Compass.
- The Norwegian Environment Agency for public annual data on environmental aspects, including collection of data related to waste streams that may contain critical raw materials (e.g. batteries, end-of-life vehicles and WEEE). As of now, the data do not currently specify recovery of individual critical raw materials.

Industry production data for CRMs exist but are incomplete. While trade data are relatively robust, they are considered sensitive and not freely accessible. However, due to the small number of companies involved and strong industry networks, Norway maintains an informal overview.

Data on production of these resources and exploration data collected by the industry are under the responsibility of the Directorate of Mining and the Ministry of Trade, Industry and Fisheries. Data on the export of produced materials and the imports for the processing industry fall within the remit of customs authorities.

The dissemination of the relevant production and trade data is under the responsibility of Statistics Norway. In the trade area, some sensitivities exist that prevent data from being freely accessible or disseminated. However, national waste regulations include provisions on reporting data related to waste streams that may contain CRMs.

There seems to be good inter-institutional collaboration for data sharing and good contact between the government and the industry network. Nevertheless, at present the government does not maintain a central overview keeping track of the country's situation. Similarly, the government does not have a structured approach for requesting data from the relevant institutions. A report from the Research Council, due in the spring of 2026, is expected to provide some insight into the overall situation of the country; this may also shed some light on potential paths for the government to have the overall information for the country. Collecting and sharing high-quality data throughout the critical minerals supply chain is fundamental to properly assess market needs and identify risks.

Legal developments

The **new Minerals Act**, effective from **July 2026**, includes provisions for improved data collection and sharing, covering both general minerals and CRMs.

- **Expanded reporting obligations**: Operators are required to submit detailed reports on exploration, extraction and production activities, including quantitative data on extracted volumes, types of minerals and surplus materials. Reporting must follow standardised formats and be submitted annually or as specified by the DMF.
- **Surplus material reporting**: A new obligation mandates reporting on surplus materials generated during extraction and processing. The goal is to enhance circularity and resource efficiency by tracking materials that could be reused or recycled.
- **Data accessibility and sharing:** The act introduces clearer rules for data sharing between operators and authorities. Certain data may be made **publicly available**, while sensitive information can be protected under confidentiality provisions.
- **Digital submission and archiving**: All data must be submitted digitally to ensure consistency and traceability. Operators are required to store and archive relevant data and samples for a defined period, enabling future audits or research.

There is a lack of structured information on the short- and long-term needs of the process industry, as well as on national stockpiling requirements. Such data may be collected under the **Act on Business and Industry Preparedness.**

The review team recommends Norway to:
Work towards having a centralised overall view of the critical mineral data flows for the country and accelerate geophysical mapping coverage of the mainland. Consider designing a more structured approach to identifying key data and timelines needed by the administration so that the statistics programme and relevant inter-institutional exchanges can be adapted accordingly.

Supply chain security

Supply concentration is stark across energy technology supply chains globally, increasing risks of both critical minerals and clean technologies supply. In solar photovoltaic (PV), the People's Republic of China (hereafter, "China") holds over 80% of global manufacturing capacity at every stage of the supply chain. In wind power, it accounts for nearly 80% of nacelle production and over 70% of blade manufacturing. China's dominance is even stronger in batteries, where it commands at least 85% of capacity across the value chain and over 95% in the case of anodes. This high market concentration creates a risk of major supply shortfalls if production from the largest supplier is disrupted by extreme weather, technical failures or trade restrictions. For battery metals and rare earths, when the supply and demand of the largest producer are excluded, supplies outside the leading producer meet on average only half of the remaining demand in 2035. For a wider set of 20 energy-related strategic minerals, China is the dominant refiner for 19 of them, holding an average market share of around 70%.

Critical minerals have been at the top of the agenda of the world's political leaders for some time now. Transitioning to a secure and home-grown clean energy system will require an exponential growth in deployment of clean energy technologies, and rapid deployment of these will depend on the availability of critical minerals. Disruptions or extreme volatility in the supply of these critical minerals could undermine clean energy transitions and therefore require carefully designed policies to ensure supply security. While Norway is a country that is only marginally exposed to energy supply disruptions in the coming years, its contribution to building a global security of supply system for critical minerals may be invaluable given the country's role and resources in terms of security, independence and investment.

Security of supply is a cross-sectoral priority in Norway's resilience and defence planning. In line with the national principle that responsibilities remain consistent in both normal and crisis situations, the government aims to establish systems that enable businesses to maintain the delivery of goods and services under all conditions. The legal foundation for this approach is the Act on Business and

Industry Preparedness (***Lov om næringsberedskap***), which provides tools for managing supply crises regardless of their origin.

Despite this framework, Norway **does not currently have a national strategy or formal government-led stockpiling regime for critical minerals**. While some process industries may maintain private reserves, these are not systematically tracked or known to the government.

In May 2025, the Norwegian government published a National Security Strategy. The strategy outlines three main strategic priorities in response to evolving security challenges, one of which is to strengthen Norway's economic security. As part of this effort, Norway will identify and mitigate risks in its relations with China and take steps to maintain strategically important industries and a resilient industrial base.

A mapping of Norway's strategic dependencies was conducted in 2024. While not focused specifically on CRMs, the report highlights general vulnerabilities in global supply chains. It provides an overview of Norway's position in international trade networks and discusses potential geopolitical risks linked to strategic dependencies. Among the sectors analysed, critical materials stand out as having a higher proportion of products associated with foreign dependencies. These dependencies are primarily concentrated within the EEA, with China, the United Kingdom and the United States being the main non-EEA partners. The report concludes that Norway's dependence on China is not unique to Norwegian actors but reflects broader global supply chain chokepoints.

Insights from dialogue with industry stakeholders suggest that Norwegian industries may be vulnerable to supply chain disruptions affecting key trade partners, particularly for products containing CRMs. While the European Union remains Norway's main trading partner, the direct use of CRMs in Norwegian industry is considered moderate.

As mentioned, in October 2025, in light of geopolitical developments and increased focus on critical value chains, the Ministry of Trade, Industry and Fisheries tasked Process21 and the Research Council with conducting a comprehensive mapping of Norwegian industry's role in strategic and critical value chains. This work will be aligned with similar initiatives in the European Union and other relevant countries. This initiative is a concrete measure to ensure that industry supports the government's preparedness and security policy. The mapping will provide a knowledge base for further policy development and strengthened collaboration among industry, authorities and research environments.

Additionally, the Norwegian Ministry of Trade, Industry and Fisheries has a close dialogue and contact with the relevant industry both at the aggregate level (through the Norwegian Confederation of Enterprises) and at the industry level (i.e. the Federation of Norwegian Industries and Process21), as well as with individual companies, covering a wide range of issues such as supply and demand.

Environmental, social, governance

Norway's mineral policy places strong emphasis on ESG standards, aiming to develop the world's most sustainable mineral industry. The Norwegian Mineral Strategy outlines five focus areas, including faster project implementation, circular economy principles, and strengthened environmental and social safeguards. Legally, the Minerals Act reinforces ESG obligations by requiring responsible resource management and corporate accountability for human rights and working conditions.

Norway also supports traceability and transparency through initiatives such as the Nordic Mineral and Metal Traceability Project, which promotes digital tools for tracking ESG performance across the value chain, including origin, processing and recycling stages.

The Process21 forum is based on the well-established three-party collaboration in Norway, among government, workers unions and business organisations. It provides advice and recommendations on how Norway can best reduce emissions from the process industry by 2050 while facilitating sustainable transition, growth and value creation for the nation. The strategy work was initiated in 2018, and the mandate was renewed by the Ministry of Trade, Industry and Fisheries and the Ministry of Climate and Environment in 2024.

Norway, like many other countries, considers ESG standardisation to be an obvious part of the exploration and production of critical minerals. However, on a global scale, only a very small fraction of mineral supplies is covered by ESG standards. This needs to be changed if critical minerals are expected to multiply their share in manufacturing and production over the next years and decades to support energy transformations, affordability and energy security.

It is very timely and important to differentiate fair and market-oriented critical minerals supply chains from those dominated by non-market policies to provide for a sincere and people-centred approach to build trust and show real benefits of energy transitions to society.

The critically low global diversification levels of supplies of critical minerals for energy and other sensitive industries, including defence and telecommunications, require the involvement of many countries around the world in the standardisation of critical minerals available on the market in terms of ESG and traceability. Norway could play a significant role in this regard as a country with extremely high international credibility with a proven ESG track record in its mining activities. Norway's clear and decisive voice in this area could be significant, regardless of the size of the Norwegian critical minerals extraction and processing sector.

The review team recommends Norway to:
Undertake targeted actions towards defining the role Norway seeks to play in the global critical minerals supply chain as a producer and a strong promoter of environmental, social and governance (ESG) standardised supply of critical minerals to make clean transitions truly sustainable

Sámi representation

Norway ratified the Indigenous and Tribal Peoples Convention (ILO 169) in 1990, officially recognising the special protection and rights of Sámi people of Norway under international law. The Sámi population is also present in the northern regions of Finland and Sweden, but most of it is located in northern Norway, and covers over 30% of Norway's land territory.

Reindeer herding and traditional Sámi livelihoods are explicitly recognised in ESG frameworks and permitting assessments with requirements of compensation for extraction in traditional Sámi areas, including those used for reindeer migration and grazing. The Sámi Council has to be involved in all consultations as part of the permitting process, and while Sámi people generally do not own their land, they have a say in the land use, on the same level as the municipalities.

The new Minerals Act, scheduled to take effect in July 2026, introduces significant provisions regarding Sámi rights. The proposed legislation stipulates that its implementation must align with international law pertaining to Indigenous peoples and minorities, placing particular emphasis on safeguarding Sámi interests consistent with Norway's international obligations. Notably, the act expands specific Sámi provisions – previously applicable only to Finnmark County – to encompass all traditional Sámi areas (Sápmi), thereby including most regions in northern and central Norway. Furthermore, the proposal introduces an Indigenous Peoples Compensation scheme, ensuring that Sámi rights holders, particularly reindeer herders, receive a portion of the value generated from the extraction of state-owned minerals. The government asserts that these measures provide greater clarity and predictability for both parties by making international legal protections more explicit.

In cases where state-owned minerals are extracted within traditional Sámi territories, operators will be required to remit an annual fee to the State Treasury, as well as an additional annual fee to affected Sámi rights holders. Operators will also be obligated to compensate Sámi rights holders for financial losses resulting from impacts on natural resources utilised by traditional Sámi industries; such compensation will follow standard expropriation regulations unless otherwise mutually agreed.

The act proposes setting the royalty for state-owned minerals extracted in traditional Sámi areas at 0.25% of the mineral's value, to be allocated between the Sámi Parliament (25%) and the relevant local reindeer herder groups (*siidas*) (75%).

Regarding landowner's minerals, the proposal differentiates the royalty rate based on land ownership: for state-owned land, Finnmark County or state commons, the royalty would constitute 25% of the agreed or determined landowner compensation; for private land, the rate would be 10%. In both scenarios, the Sámi Parliament is designated to receive 25% of the royalties, while the local *siidas* holding rights to the area are to receive 75%.

Market overview

Norway has a mining and quarrying industry that focuses on the extraction of metal ores, industrial minerals, natural stone and aggregates. Current production includes iron ore and titanium oxides, as well as natural graphite, quartz and quartzite, nepheline syenite and other feldspar minerals, olivine, limestone/marble, and dolomite, with limited critical minerals output for now. But Norway also has a processing industry that produces significant quantities of metals, mainly from imported raw materials. The main products are aluminium, nickel, zinc, silicon, iron alloys, cobalt and platinum group metals (PGMs). For certain raw materials, Norway plays an important role in the European and American supply chains.

The Norwegian government aims to position Norway as a reliable, long-term supplier of critical minerals essential for the green transition. Notable progress has already been made towards realising this objective.

Reserves and exploration

Norway has a large resource potential for critical raw materials. However, almost half of the country has not yet been surveyed using modern geophysics, which calls for an accelerated effort. While neighbouring Sweden and Finland have fully mapped their land areas, Norway has only 51% coverage with high-resolution airborne magnetic surveys, and 14% of mainland Norway is covered at lower resolution. Since geological formations cross national borders, it is known that areas with valuable deposits in Sweden and Finland extend into Norway. Therefore, the potential in under-mapped regions may be significant, and knowledge exchange with Swedish and Finnish geological communities should be emphasised. Yet the NGU is committed to prioritise mapping Norwegian potential of critical minerals such as phosphates, REEs, molybdenum, vanadium, cobalt, copper and nickel.

Critical minerals activity and prospection in Norway, as of November 2025

Production	Graphite (battery grade), feldspar
Value chain	Silicon metal, titanium metal
Potential	Beryllium, cobalt, coking coal, copper, fluorspar, light REEs, nickel (battery grade), niobium, phosphate rock, PGMs, vanadium
On the CRMA list but less relevant for Norway	Bauxite/alumina/aluminium, antimony, arsenic, baryte, bismuth, boron (metallurgy grade), gallium, germanium, hafnium, helium, heavy REEs, lithium (battery grade), magnesium metal, manganese (battery grade), phosphorus, scandium, strontium, tantalum, tungsten

Note: CRMA = Critical Raw Materials Act; REEs = rare earth elements; PGMs = platinum group metals.
Source: Geological Survey of Norway.

Norway has a very varied geology and, compared with the rest of the Fennoscandia Peninsula (Finland and Scandinavia), most of the rocks in Norway are considerably younger, which implies that the geological setting is quite different for many of the Norwegian occurrences. The critical minerals and metals that are considered to represent the biggest potential in Norway are natural graphite, copper, nickel, high-purity quartz grades for silicon production, titanium minerals, REEs, phosphate, cobalt, niobium and vanadium.

Although these deposits have been identified by NGU through sampling and chemical analysis, their size in terms of tonnage and grades has not been confirmed. This is outside NGU's mandate and is the responsibility of exploration or mining companies. Exploration and investigation of minerals and metals in Norway are regulated by the Minerals Act (see Permitting section for more details). As of 2025, exploration in Norway mainly covered iron, copper, REEs, nickel, cobalt and quartz.

2025 exploration highlights in Norway

Project	Metal or mineral	Company
Sydvaranger	Iron	Grangex AB
Nussir	Copper	Blue Moon Metals
Sulitjelma	Copper, zinc	Blue Moon Metals
Joma	Copper, zinc	Bluelake Mineral
Bjerkreim	Phosphate, ilmenite, vanadium magnetite	Norge Mineraler AS
Fen	REEs	Rare Earths Norway, Saga Minerals
Ertelien	Nickel, cobalt, copper	Kuniko
Nasafjell	Quartz	Elkem

Note: REEs = rare earth elements.
Source: Geological Survey of Norway.

Mining and refining

In total, the mineral industry in Norway comprises just over a thousand individual extraction sites operated by close to a thousand normally relatively small companies. Of these, industrial minerals and metals accounted for 32 different extraction sites in 2024, operated by 26 companies.

Status of critical minerals projects in Norway

Materials	Main players	Raw material sources	Operational status
Aluminium	Hydro, Alcoa	International	Producing
Silicon	Elkem, Wacker	Norway/international	Producing
Ferroalloys (ferrosilicon, ferromanganese, silicomanganese)	Elkem, Eramet, Ferroglobe, Finnfjord	Norway/international	Producing
Nickel, copper, cobalt, associated metals	Glencore	International	Producing
Zinc	Boliden	International	Producing
Synthetic anode graphite	Vianode	Norway/international	Full-scale plant operational
REEs	REEtec	Norway/international	Full-scale plant constructed

Note: REEs = rare earth elements.
Source: Ministry of Trade, Industry, and Fisheries.

In addition to its extensive geological resources, Norway has access to clean and cheap electric energy (in general the most expensive component of metal production). With the energy transition from hydrocarbons to green energy solutions, the access to cheap electricity will by all probability be increasingly important in the future. In the Fraser Institute's report from the 2024 Annual Survey of Mining Companies, Norway was ranked as the tenth most attractive jurisdiction for mining investment globally.

Permits are granted by lower-level government entities such as municipalities or directorates, but can be appealed to higher authorities such as ministries, and ultimately decided by the sitting political leadership in the deciding ministry. Several permits have also been appealed to the courts in recent years.

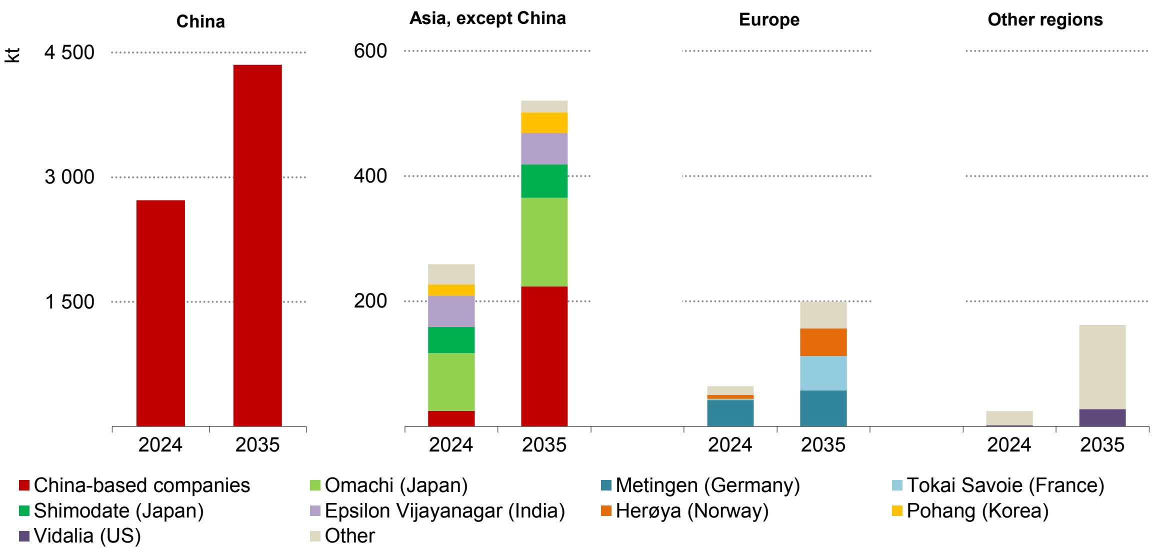
Graphite

Norway is the most important producer of natural graphite within the European Union. It is also the country with the largest potential for graphite in Fennoscandia, with more than 25 occurrences identified. Historically, Norway has been producing graphite for almost a century from three mines, of which Skaland Graphite is the only one still operating. The Skaland Graphite mine, located in the north of Norway on the island of Senja, produces from the world's richest flake graphite deposit, with an average grade of 31% graphitic carbon. Skaland is the only graphite mine in Scandinavia, the biggest crystalline graphite producer in Europe and the fourth-largest producer globally outside of China.

In 2021, the underground graphite mine had a resource estimate, compliant with the Joint Ore Reserves Committee (JORC) code, of 1.84 million tonnes (Mt) at 23.6% total graphite content, equal to 434 kilotonnes (kt) of contained graphite using a 10% cut-off. With the present annual production of 12 kt, the mine has reserves for at least 50 years. In March 2026, Skaland Graphite was sold to the Norwegian company LNS with plans for expanding output.

Global demand for graphite is expected to grow from 5.4 Mt in 2025 to 8.3 Mt in 2030 and 11 Mt in 2040. In 2023, the European Union classified graphite as a strategic raw material. It relies on imports of about 100 kt a year from China, Tanzania and Mozambique. China produces 97% of the world's graphite anodes, and has now imposed export controls, raising Europe's need for domestic sources. Supply options outside of China could triple if a few planned large-scale projects successfully come online.

Battery-grade graphite material supply capacities in the base case



Source: IEA (2025), Global Critical Minerals Outlook 2025.

In October 2024, the Norwegian company Vianode started full-scale production at its Herøya plant, called Via ONE, and aims to produce 2 000 tonnes of anode materials per year by 2030. Vianode is also building a new processing plant in Canada, Via TWO, and expects operations to start in 2027. These two plants' outputs will feed the United States' market, as stated in the agreement with General Motors (GM): Vianode will supply high-performance synthetic anode graphite for electric vehicle batteries to GM from 2027 to 2033.

Norgraph is an ongoing integrated extraction and processing project in southern Norway. The project promoted by GreenRoc Strategic Materials Plc aims to contribute to the supply of graphite (battery grade), possibly from 2027. It is considered a strategic project by the European Commission.

The Norwegian process industry is well-established, with relatively few new market entrants. Nevertheless, a recent report by Process21 highlights that investments in the sector have risen significantly, from approximately NOK 10 billion in 2015 to around NOK 30 billion in 2023. A substantial portion of these investments has been allocated to maintenance and modifications, notably in relation to the green transition and digitalisation initiatives. Additionally, some new capacity has been developed, both within existing enterprises – such as Hydro Karmøy's technology pilot and Boliden Odda's zinc expansion – and within new ventures, such as Vianode's synthetic graphite operations.

Titanium

Norway is a world-class producer of titanium minerals that are refined to titanium oxide and is the most important producer of titanium minerals within the European Union. Several very large titanium deposits have been identified in southern Norway.

Tellnes is one of the largest titanium deposits in Europe and has been operating since 1960. In 2023, it produced around 670 kt of ilmenite concentrate. It is owned by Titania AS/KRONOS.

A new rutile and garnet (for titanium metal) mine opened in 2024 in Engebø and is operated by Nordic Mining ASA. It is the first greenfield project in Scandinavia. The operations at Engebø will process 1.5 Mt of ore annually, with an expected mine life of 40 years. Before coming to life, this project was taken to court on the case that the minerals of the deposit were not fully owned by the state, and the licence was therefore invalid. In March 2024, the Norwegian Supreme Court recognised that in fact the whole deposit consisted of state-owned minerals and that Nordic Mining had sole and exclusive rights to mine.

Copper, cobalt, nickel

Norway has a long tradition of mining copper, primarily through a string of volcanogenic deposits concentrated in central and northern Norway. Norway does not currently produce copper from national deposits, and the last operating copper mine at Joma closed in 1998. However, in 2025, a Blue Moon Norway company, a subsidiary of Canadian Blue Moon Metals, acquired the Nussir and Ulveryggen deposits, with active mining permits. Nussir is a former open-pit mine that used to produce copper, silver and gold, and since June 2025 has been considered an EU CRMA Strategic Project. Blue Moon Metals conducted feasibility studies at the brownfield, and the processing plant is expected early 2026 and operation to start at the end 2027. Most of the production will be shipped to EU smelters in early 2028, with a maximum output of 20 kt of copper per year. The location has access to water and low-cost, high-voltage renewable power. Despite the project's potential, it has not secured any Norwegian funding, whether private or public, which may hinder its ability to scale up operations for commercialisation.

Two other copper mines are under development: mines in Joma and Sulitjelma, both brownfield projects, still at the feasibility stage. Cobalt and nickel (Ringerike/Ertelia, Råna) mining in Norway also consists of a lot of brownfields also at the exploration stage.

Norway imports copper, cobalt and nickel ores to feed into the Nikkelverk refinery, fully owned by Glencore. Nikkelverk is located in southern Norway and produces high-grade refined nickel, copper and cobalt. Discussions are ongoing to extend operation to recycle copper, cobalt, nickel and PGMs.

Rare earths

The Fen area, in Telemark County, is identified as a world-class potential resource for REEs. Preliminary estimates suggest that the Fen Complex holds between 30 Mt and 50 Mt of REEs, with concentrations ranging from 1% to 5% total rare earth oxides in certain areas, and could potentially meet up to 30% of the European Union's REE demand by 2050. Rare Earths Norway (REN), the company leading the Fen project, is conducting core drilling and beneficiation tests to assess the deposit's viability. The project envisions an "invisible mine" approach, focusing on underground mining methods to minimise surface disruption and environmental impact. The first stage of mining is projected to commence by 2030, with plans to produce 2 000 tonnes of neodymium and praseodymium (NdPr) annually by 2031.

There is also a light rare earth element processing plant under construction in Norway, which can be expanded to recycle heavy rare earth elements if provided incentives to do so.

Silicon

Elkem ASA is a leading Norwegian industrial company specialising in advanced silicon-based materials. It operates the only fully integrated supply chain in Norway (even though ores are exported and reimported from elsewhere for processing):

- Elkem Tana (Finnmark): one of the world's largest open-pit quartzite mines, it produces high-quality quartzite used in silicon, aluminium and ferrosilicon alloys.

- Elkem Bjølvefossen (Ålvik): this plant specialises in producing ferrosilicon and magnesium-ferrosilicon master alloys, serving the international iron and steel industry.
- Elkem Bremanger (Svelgen): ferrosilicon and silicon production.
- Elkem Thamshavn (Orkanger): silicon metal production.
- Elkem Salten and Elkem Råna: ferrosilicon production.

Wacker (a German multinational) operates a major silicon metal production facility in Holla, located in Kyrksæterøra. This plant is integral to Wacker's supply chain, producing metallurgical-grade silicon, for manufacturing silicones and hyper pure polysilicon. The facility has been operational since 1964 and was acquired by Wacker in 2010.

Eramet Norway (subsidiary of Eramet, a French mining and metallurgical group) focuses on processing imported manganese ore into ferromanganese and silicomanganese alloys. Its three plants (Porsgrunn, Sauda and Kvinesdal) consume close to 1 Mt of manganese ore per year, of which more than 50% originates from Gabon.

Other developments

Aluminium

Norsk Hydro is a fully integrated aluminium company, meaning it handles everything from bauxite mining and alumina refining to primary aluminium production and recycling. Alcoa also has major operations in Årdal and Lista (primarily electrolysis plants), providing high-purity primary aluminium.

Feldspar

Norway was an important producer of feldspar from the late 19th century through much of the 20th century. Most operations declined and closed toward the late 20th century due to economic factors. Today, the most important mine still in activity is the nepheline-syenite (feldspar) mine near Alta (in northern Norway), operated by Sibelco Nordic AS, with an annual output on the order of a few hundred thousand tonnes of concentrate per year.

Lithium-iron-phosphate batteries

Morrow Batteries has established the Morrow Cell Factory in Arendal, southern Norway, which is Europe’s first gigawatt-scale factory dedicated to producing lithium-iron-phosphate (LFP) battery cells. The facility currently has about 1 gigawatt-hour annual capacity – capable of producing approximately 3 million prismatic LFP cells per year – and is intended to deliver commercially viable batteries by the end of 2025.

Mine tailings and brownfields

The increased need for a number of metals and minerals to aid the green transition has generated increased interest in the mapping of tailings. Tailings deposited after metal production may contain metals that were not technically possible to extract, or metals that were not relevant or profitable to extract when the mine they came from was in operation. New processing of deposits from older tailing dams or landfills can usually be realised within substantially shorter time horizons than new primary production. The European Union, Canada and several European countries are therefore facilitating extraction from secondary resources through mapping and characterisation of old disposal sites. In Norway, tailings from primary production of copper and zinc are likely to contain cobalt in addition to residues of copper and zinc minerals that may be recovered with modern technology, and NGU has a national mapping programme for characterisation of tailings and other disposal sites.

Trade

Given its still limited mining capacity of critical materials, Norway relies on imports to meet its needs. Overall, Norway imports commodities from outside of Europe, e.g. China, Gabon, Chile, the United States, and exports semi-refined/refined products to European partners, e.g. Sweden, France, Germany.

Recycling

The Ministry of Climate and Environment is responsible for circular economy, waste management and environmental policy and co-ordinates measures for CRM recycling and resource efficiency. The Norwegian Environment Agency's principal functions include exercising regulatory authority, supervising and guiding regional and local government level, and giving professional and technical advice.

At a national level, Norway has not set any specific targets for recycling critical minerals. The CRMA is currently in the process of being incorporated into the EEA agreement. Norway is working closely with the other EFTA states with the aim of incorporating the act as soon as possible. As part of CRMA requirements, a national programme for circularity will be developed (with the support of the Nordic Council). This programme will include measures to promote waste prevention, and reuse and repair products and components with potential for recovery of critical raw materials.

As of now, recycling of batteries, electrical and electronic equipment, and vehicles is regulated under the Waste Regulation, which implements EU directives including the WEEE Directive (2012/19/EU) and the EU Battery Directive 2006/66/EF. (The new Battery Regulation from 2023 is not yet incorporated into the EEA agreement. This will be implemented through a separate national battery regulation.) Monitoring is based on weight-based reporting from treatment facilities, but current systems do not specify recovery rates for CRMs.

Circular economy principles are well embedded into the national priorities. Norway has general material recovery targets for batteries, vehicles and e-waste, but these do not include specific targets for critical raw materials. For vehicles, the targets are weight-based for the whole vehicle. For e-waste, recovery data are reported by product group and weight, without CRM-specific goals.

Norway has a national waste management plan that contains information on, among other things, the current waste management situation in the country, including the type, quantity and source of waste generated; waste likely to be shipped from or to national territory; and existing major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste, and waste containing significant amounts of critical raw materials. The plan is currently being updated.

Norway has implemented **extended producer responsibility (EPR)** schemes for key waste streams relevant to CRM recovery, including end-of-life vehicles, waste batteries, tyres and WEEE. Under these schemes, producers are financially and environmentally responsible for the entire life cycle of their products, including collection, recycling and safe disposal, and must report to the Norwegian Environment Agency. These policies aim to promote circular product design and reduce environmental impact.

EPR schemes approved by the Norwegian Directorate of the Environment

Approved return company	Product
AS Batteriretur	Batteries
Autoretur AS/ Autoretur battery recycling	Vehicles and batteries
ERP Norway AS	Batteries, WEEE
Grønt Punkt Norge AS	Packaging
Norsirk AS	Batteries, WEEE, packaging
Norsk dekkretur AS	Tyres
Recipo AS	Electronics
Renas AS	Batteries, WEEE
Proretur AS	WEEE

Note: WEEE = waste electrical and electronic equipment.
Source: Nordic Innovation (2024), Recycling of Critical Raw Materials in the Nordics.

Speira has two plants receiving complex slag and dross from both primary and secondary aluminium plants, wastes that contain a multitude of CRMs. There are also ongoing research and tests for recycling of certain high-end silicon products, such as solar panels. Substantial work has been carried out at the Elkem/REC test centre in Norway. However, as it was recently decided to close the two Norwegian REC plants, recycling is not expected to be industrialised. The Wacker plant in Norway may consider recycling opportunities in the future, but no timeline has been provided.

Battery recycling facilities

Europe's largest recycling plant for electric car batteries was recently established in Norway, where valuable materials from electric car batteries will be recycled in a sustainable way. The **Hydrovolt** company in Fredrikstad started operations in April 2022 with a capacity of 12 000 tonnes/year (approximately 25 000 electric vehicle [EV] batteries) and plans to expand in Europe with a long-term goal of recycling around 70 000 tonnes of battery packs by 2025 and 300 000 tonnes of battery packs by 2030. This corresponds to approximately 150 000 electric car batteries in 2025 and 500 000 in 2030. Hydrovolt's fully automated process allows up to 95% of the materials to be recovered from the batteries, including plastic, copper, aluminium and "black mass", a substance containing metals of nickel, manganese, cobalt and lithium. The black mass will be sent on to downstream treatment plants, where it will be further processed before reuse. Hydrovolt is expected to produce around 2 000 tonnes of black mass each year by 2025.

Stena Recycling EV battery recycling plant in Ausenfjellet started operations in spring 2025, with an initial recycling capacity of 3 000 tonnes/year (approximately 6 000 to 8 000 EV batteries), including reuse and second-life diagnostics. Stena Recycling also announced a partnership with Nissan, which will give the recycling plant a steady supply of used batteries as there are over 80 000 Nissan Leafs on the road in Norway.

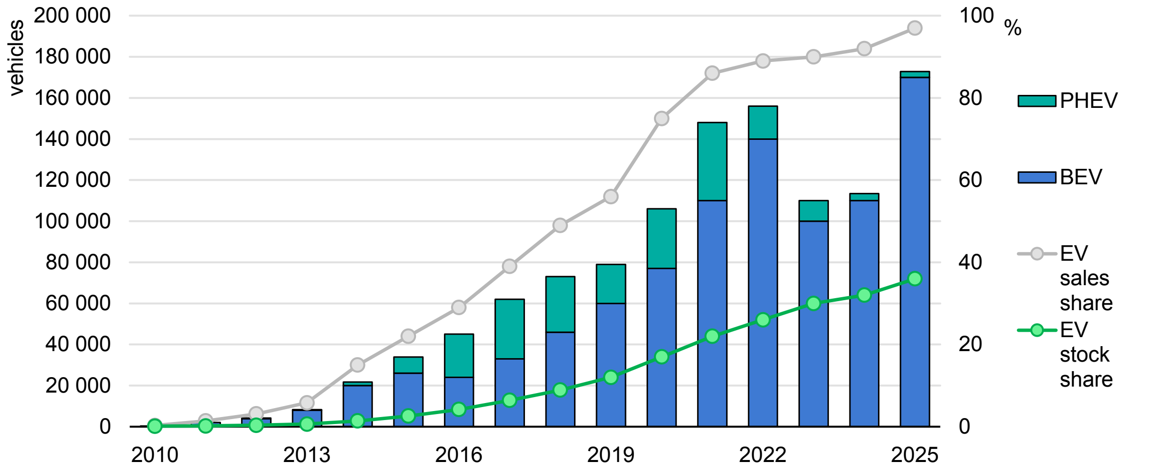
Recycling and secondary supply can be a significant factor in meeting future market demand, but also an important element of Norway's culture of nature protection and circular economy. Setting up national targets for recycling of critical minerals (beyond the ones indicated in the EU CRMA) supported by facilitating policies, may go a long way towards making Norway the most advanced European country in terms of economic value created from the recycling industry and may help cover up to 30% of global demand for certain critical minerals by 2040, according to the IEA’s analysis.

The review team recommends Norway to:
Set quantitative and ratio targets for mineral recycling and secondary supply value chain to add to an extensive Norwegian circular economy priority and create value within a sustainable business framework.

Norway's electric vehicles uptake

Norway has the highest EV adoption rates globally supported by substantial government incentives. As of 2024, EVs were exempt from the 25% value-added tax up to NOK 500 000, and from carbon dioxide and nitrogen oxide components of the registration tax, making an EV the cheapest option for a new car in the country. Local programmes, such as in Oslo, offered up to NOK 1 million per housing co-operative for charging installations. These measures have helped EVs reach nearly 89% of new car sales in Norway. Notably, the substantial adoption of electric vehicles in a less favourable climate is largely attributable to the fact that many newly purchased electric cars have not replaced existing combustion engine vehicles but were rather a wise choice given the generous state subsidies and benefits of owning an EV. Instead, they have been added to households and fleets as supplementary vehicles, thereby increasing the total number of cars in the country.

Norway electric vehicles update, 2010-2024



Note: BEV = battery electric vehicles; PHEV = plug-in hybrid electric vehicles.
Source: IEA (2026), Global EV Data Explorer.

In its latest budget release, the Norwegian government announced it would begin phasing out the country's value-added tax exemption for electric vehicles. The exemption will be scaled back in 2026 and completely phased out by 2027, which may not be without impact on future EV sales.

This high uptake also means that Norway has to anticipate vehicles' end of life and how to deal with recycling and materials recovery as part of its recycling strategy.

Workforce and skills

A prerequisite for developing an efficient and profitable mineral industry is the establishment of strong academic and professional environments. It is necessary to educate both skilled workers through vocational trainings and graduates from universities and colleges in relevant disciplines, and there is a need for mechanisms that promote interdisciplinary collaboration.

In recent years, total employment in the mineral industry in Norway was at close to 9 000 full-time equivalents, of which around half were directly employed by companies. Yet recruitment to relevant educational programmes for the mineral industry is weak. For technical subjects, the number of graduates has been between 1 and 5 per year from 2014 to 2024, averaging 2.9 graduates per year. Today, a clear majority of candidates entering research education are recruited from abroad, making the Norwegian industry largely dependent on foreign expertise. Experience also shows that during the course of education there is a significant leakage of students to the oil and gas industry.

Lack of manpower and relevant skills can be an important bottleneck for increased activity and value creation in the industrial sector. While Norwegian industrial environments have cutting-edge expertise in areas such as oil and gas, renewable energy, metallurgy, and the maritime and marine sectors, the business community reports a shortage of competent labour due to the ageing of the population. The Green Industrial Initiative Roadmap, developed by the Ministry of Trade, Industry and Fisheries, has identified workforce and skills as a prerequisite for a green industrial transition in Norway.

In 2019, the Norwegian Directorate for Higher Education and Skills on behalf of the Ministry of Education and Research initiated an "industry programme" for industry and construction. The education and training programmes are financially supported by the state for all levels of education, and companies and the individual employee invest their time. The skills programmes offered through the industry programmes must be short and flexible, and must be able to be completed in combination with work.

In 2022, the curriculum of the programme was broadened to include topics such as batteries, offshore wind, hydrogen, and carbon capture and storage. The following industries benefit from this programme: the waste and recycling industry;

agriculture, forestry and horticulture; industry and buildings sector; construction industry; food and beverage industry; electrical, automation, renewable and power industry; and maritime industry. The industry association Norwegian Mineral Industry also offers trainee positions for young engineers in co-operation with the mineral industry.

To try to close the workforce gap for future generations, the government works actively with the Skills Policy Council on skills policy in collaboration with the council. The government also aims to give tertiary vocational education a major role in the competence reform. The government will give vocational colleges a greater role in teaching technical expertise, and in furthering education and development of the workforce throughout the country.

A new vocational training programme for vehicle dismantling is currently under public consultation. If implemented, it could enhance skills for recovering CRMs from end-of-life vehicles, contributing to circular economy goals.

The Norwegian government could gain public support for the critical minerals sector through targeted and dedicated education programmes and promotion campaigns among various social groups. Pointing out that Norway already uses technologies based on critical minerals on a large scale (world's highest sales share of electric vehicles, heat pumps and photovoltaics, information technology systems), but that these are manufactured using imported critical minerals or technologies, could allow the Norwegian public to have a better understanding of the national dependence on imported goods. As a result, this type of campaign would help increase economic activity in this area domestically, with a positive impact on local communities, the labour market and economic credibility.

The review team recommends Norway to:
Conduct a broad and targeted information campaign among the Norwegian public to raise awareness of the role that critical minerals play in the energy transition and modern technologies in strategic sectors such as energy, high-tech and defence to gain greater public acceptance for critical minerals projects.

Annex

Conversion rates (as of 1 July 2026)

1 USD = 9.92 NOK

1 USD = 0.88 EUR

Abbreviations and acronyms

BIA	Programme for User-Driven Research-Based Innovation
CMR	Critical Minerals Review
CRM	critical raw material
CRMA	Critical Raw Materials Act
DMF	Directorate of Mining with the Commissioner of Mines at Svalbard
EEA	European Economic Area
EFTA	European Free Trade Association
EPR	extended producer responsibility
ESG	environmental, social and governance
ETS	Emissions Trading System
EU	European Union
EV	electric vehicle
FORGE	Forum on Resource Geostrategic Engagement
G20	Group of 20
IEA	International Energy Agency
ILO	International Labour Organization
JORC	Joint Ore Reserves Committee
LFP	lithium-iron-phosphate battery
MSP	Minerals Security Partnership
NATO	North Atlantic Treaty Organisation
NGU	Geological Survey of Norway
NOK	Norwegian kroner
OECD	Organisation for Economic Co-operation and Development
PGM	platinum group metals
PV	photovoltaic
R&D	research and development
REEs	rare earth elements
REN	Rare Earths Norway
Siva	Selskapet for industrivekst (Industrial Development Corporation of Norway)
UN	United Nations
US	United States
WEEE	waste electrical and electronic equipment

Measurements

kt	kilotonnes
Mt	million tonnes

See the IEA glossary for a further explanation of many of the terms used in this report.

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