NORDIC MINING | BUY TP NOK24

Progressing according to plan with the 20% IRR Engebø project

10/04/2024

SpareBank 1 Markets acted as joint book-runner in connection with the private placement in Nordic Mining in March 2023

Rune Tryti
Phone: +47 24 13 37 28
Mobile: + 47 47 63 07 95
E-mail: rune.tryti@sb1markets.no

SpareBank 1 Markets
Phone: (+47) 24 14 74 18
Visit address: Olav Vs gate 5, 0161 Oslo
Post address: PostBox 1398 Vika, 0114 Oslo

Nordic Mining (Buy tp NOK24) – Progressing according to plan with the 20% IRR Engebø project

Nordic Mining is progressing according to plan with its Engebø rutile and garnet project on the west coast of Norway. Construction works are now well underway with production start for the 40+ year mine targeted for Q4 2024. The project progress and funding has been derisked following two cost-to-complete test by two separate independent engineers, and the risk for further substantial capex increases should be low following design freeze process with the EPCs. Further, the company has offtake agreements securing sales of up to the full volumes of rutile and garnet for the first five years. Hence, the pieces are falling into place. When valuing a development project like Nordic Mining's Engebø we prefer to value a derisked project based on a normalized cost of capital and then use a discount on this NAV to account for development risk. Using a WACC of 12% we estimate a YE25 NAV (we consider the project derisked after one year of production) of NOK ~30/sh. We reiterate a Buy recommendation and lift our target price from NOK20 to NOK24, equal to a 19% discount to our unrisked NAV. Our target price implies 2026e P/E and FCFE yield of 8.3x and 14%, respectively.

- **This is Engebø.** Engebø is a rutile (titanium feedstock) and garnet (industrial abrasive) project on the west coast of Norway. After 15+ years of planning and project development, construction works commenced in H1 2022 for an estimated production start in Q4 2024 from an open pit for a 40+ year life of mine. The project is so far on time and largely on budget, and the company is fully funded and sold out for the first five years of production.

- **Construction works well underway.** Construction works on the Engebø project are now well underway and has past the halfway point towards a production start in late 2024 with first revenue in Q1 2025. The project progress timeline has been de-risked following two cost-to-complete tests performed by to separate independent engineers prior to royalty and bond drawdown. These tests serve as a third-party assessment of the Company's projections that the Engebø project has sufficient funding and will be completed on time.

- **Fully funded and sold out first five years.** Following an extensive financing process in late 2022/early 2023, the company secured the full project financing package of USD ~280m, including a project reserve of USD 30m. On our estimates the company will have a trough position of USD ~28m once the production ramps up in late 2024/early 2025. Hence, the company should have ample liquidity to deal with unforeseen events. Nordic Mining has two rutile offtake agreements in place which secure sales of up to the full rutile production the first five years and a garnet offtake which secures sale of the full garnet volumes the first five years.

- **Success in the court room.** Nordic Mining has seen success in the court room so far in 2024. First, In early January it was announced that the court ruled in favor of the Norwegian state regarding Nordic Mining's discharge permit. Two NGO's had summoned the Norwegian state claiming that the discharge permit was null and void. The court ruled in favor of the Norwegian state on all central items and the verdict also orders the two NGO's to cover the state's legal expenses of NOK 1.4m. The two NGOs appealed the case and it will be tried in the Court of Appeal after being heard in the EFTA court during the fall of 2024. Second, in March the Supreme court ruled in favor of Nordic Mining in the case against Artic Mineral Resources (AMR). AMR had claimed that it had right to certain parts of the Engebø deposit.

- **Trading at a material discount to NAV.** Our preferred valuation method for a development project like Nordic Mining's Engebø is to value a "derisked project" based on a normalized cost of capital and then set a discount to NAV to account for development risk. Using a WACC of 12% we estimate a YE25 NAV (one year of production) of NOK ~30/sh. Hence, the current share price of NOK ~19 is equal to ~0.64x NAV which we believe is to steep a discount considering the substantial development progress made over the last 12 months. We reiterate a Buy recommendation and lift our target price from NOK 20 to NOK 24, equal to a 19% discount to our unrisked NAV. At our target price the company will be trading at 2026e P/E 8.3x and FCF to equity yield of 14%.

Source: SpareBank 1 Markets, Company, TiPMC

Company snapshot

About the company

- Nordic Mining is listed on Oslo Stock Exchange and was carved out of Rocksource in 2006. The company is in the process of developing the Engebø rutile and garnet project on the west coast of Norway. The company has secured a USD ~280m financing package to fully fund the construction and development of the project which is on track for production start in late 2024. Rutile and garnet will be produced over a ~40 year period, starting from an open pit.
- **Management:** Ivar Fossum (CEO), Jens Schnelle (Interim CFO), Kenneth Angedal (Managing Director Engebø Rutile and Garnet)
- **Chairman:** Kjell Roland
- **MCAP:** ~NOK 2.0bn (~USD185m)
- **Ticker:** NOM

Top shareholders

Shareholders, April 10th, 2024		
Shareholder	**# shares (m)**	**%**
Fjordavegen Holding AS	16.22	15.0 %
Iwatani Corporation	15.98	14.7 %
Morgan Stanley & Co	9.94	9.2 %
Nordnet Bank	2.81	2.6 %
Citibank	2.18	2.0 %
Top 5	**47.13**	**43.5%**
Total	**108.41**	**100.0%**

Assets

- **Engebø (100%)**
  - » Engebø is a rutile and garnet project located on the west coast of Norway. The project is fully permitted and supported by extensive project verification work over a number of years. The USD ~210-220m project development is fully funded and the company has singed offtake agreement securing up to the full rutile and garnet production for the first five years of operation. The bulk of the production volume will come from garnet, but revenue will be evenly split as rutile prices are ~6x garnet prices. The company estimates the after-tax unlevered IRR of the project to be ~26% over the 40 year life of mine.

Key financials

Key financials (NOKm)	2022A	2023A	2024e	2025e	2026e
Net revenue	0	0	0	740	859
EBITDA	-46	-40	-86	395	509
Net profit	202	-45	-233	194	313
Cash and cash equivalents	169	1710	358	443	815
NIBD	-26	-808	584	499	128
Operational cash flow	-76	-41	-172	245	479
Unlevered FCF	141	-929	-1287	189	476

Source: SpareBank 1 Markets, Company

Estimate changes

	Current estimates			Previous estimates			Changes (%)		
NOKm	2024E	2025E	2026E	2024E	2025E	2026E	2024E	2025E	2026E
Net revenue	**0**	**740**	**859**	**100**	**691**	**803**	**-100%**	**7%**	**7%**
Expenses	-86	-345	-350	-96	-323	-327	-11%	7%	7%
EBITDA	**-86**	**395**	**509**	**4**	**369**	**475**	**-2253%**	**7%**	**7%**
D&A	-37	-74	-74	-34	-69	-69	9%	7%	7%
EBIT	**-123**	**321**	**435**	**-30**	**300**	**406**	**311%**	**7%**	**7%**
Net Financial items	-110	-127	-122	-125	-125	-125	-12%	2%	-2%
PTP	**-233**	**194**	**313**	**-155**	**175**	**281**	**51%**	**11%**	**11%**
Taxes	0	0	0	0	0	0			
Net profit	**-233**	**194**	**313**	**-155**	**175**	**281**	**51%**	**11%**	**11%**

Source: SB1M, Company

Engebø project

The Engebø Rutile and Garnet project

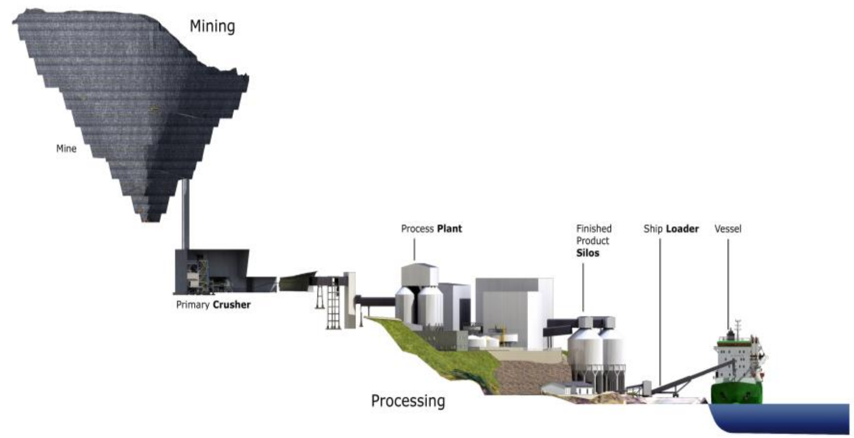
A ~40 year mine at an attractive location

- **Engebø is a dual-mineral, USD ~210-220m capex project (USD ~105m of capex had been invested in the project as per end Q423 and we estimate USD ~110m of capex remained until production start)** to develop a 133.2Mt mineral resource, consisting of Natural Rutile (3.51% TiO_2 grade) and Garnet (44% grade).

- **Favorable location with infrastructure in place**. The Engebø mountain is located next to the Førde fjord in Western Norway. Engebø has a deep-sea port, access to renewable power supply and roads. The regional center and two local airports are 40 minutes away, and it is located in a region with a skilled, industrial labor force, with maintenance and service vendors available in the region.

- **Life of mine is 39 years based on proven & probable reserves**. It will initially be developed to produce from an open-pit (from late 2024), followed by an underground period (from ~2037-38), and at last from stockpile (from 2056 to 2063). The open pit production period is associated with a significantly lower mining cost than the underground period.

- Simply put, the process is as follows:
  - Rock from the mountain is excavated
  - Rock is transported down an internal, vertical shaft to a primary crusher, and thereafter moved to the processing facility by conveyer belt
  - Processing is mainly gravity based, generating coarse garnet first, thereafter fine garnet and finally rutile.
  - Finished product is shipped to Europe / North America from the port.
  - The waste product is deposited at the seafloor using an undersea, buoy supported, transport system
  - Plant is powered by hydropower (region N03 / Central Norway)



Source: SpareBank 1 Markets, Company

The Engebø development period has been lengthy

NOM has been developing the project since 2006. Construction works are now on track for production start in late 2024

Comments

As often seen for mining projects globally the Engebø project development has taken 15+ years. Several important stepping-stones have been reached over the past couple years, including:

- **Operating license firmed up.** In May 2022 the Ministry of Trade, Industry and Fisheries confirmed that NOMs operating license is maintained with full rights to the Engebø project. The decision was final and cannot be appealed.
- **Offtake agreements signed.** The company has signed two rutile offtake agreements that secures sales for up to the full annual production of rutile for the first five years of production, and one offtake agreement for the full garnet production the first five years of operation.
- **Construction works well underway.** Following the acquisition of the main properties at Engebø, NOM began early construction works in April 2022. Construction works are now well underway, on schedule and largely on budget for production start in late 2024, according to the company.

Historical company milestones

1970s: The Engebø resource was recognized as a rutile deposit in the 1970s

1990s: Engebø explored by Dupont (subsidiary ConocoPhillips)

2006: Nordic Mining acquired the extraction permit from ConocoPhillips

2007: Permitting process started & planning program approved by municipalities

2015: Zoning plan and discharge permit approved by Ministries

2019: Detailed regulation plan approved by municipality

2020: Operational license approved by Directorate of Mining

2021: Discharge permit approved

2022: Main properties at Engebø acquired from landowners

2022: Early construction work in process area started

2022: Operating license confirmed by Ministry of Trade, Industry and Fisheries

2022: Royalty and bond financing secured

2022/2023: Two rutile and one garnet offtake agreements secured

2023: Fully funded following private placement

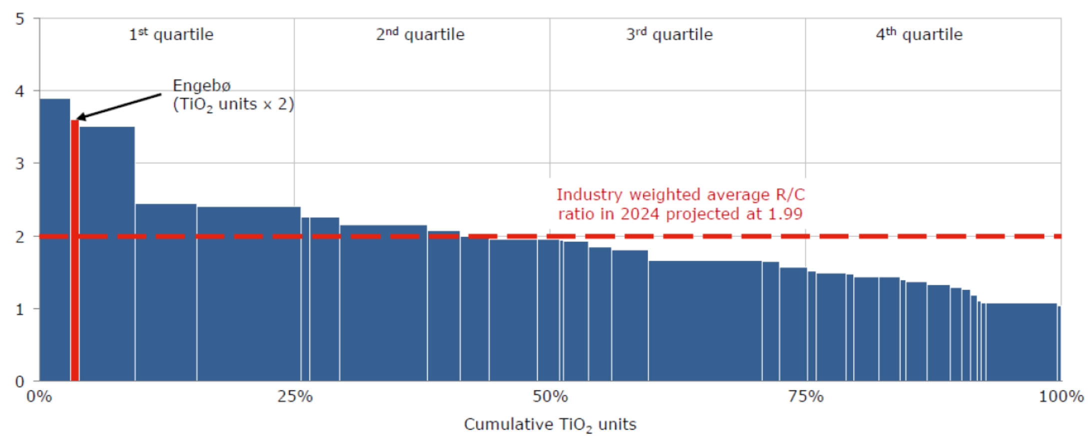
April 2024: Construction underway and largely on budget for late 2024 startup

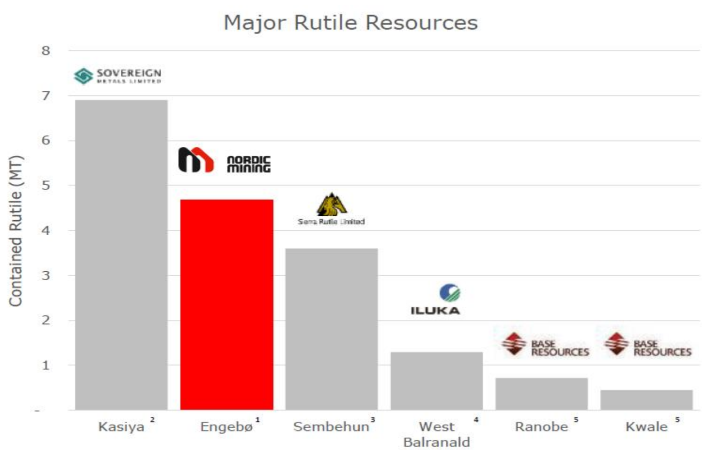
Source: SpareBank 1 Markets, Company

The Engebø deposit holds an attractive TiO2 resource

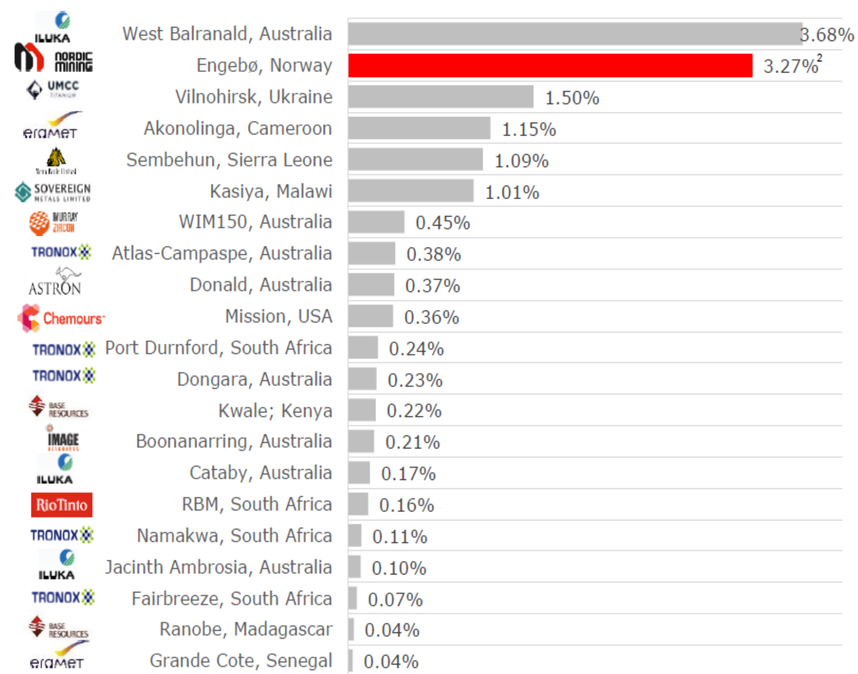
Top 10% on the revenue/cost curve, among the largest resources with the highest grade, and closer to the European and the US East coast markets than other mines

Industry revenue-to-cash cost ratio curve[1]





Indicative rutile grades (TiO_2) for current producers and planned projects[1]



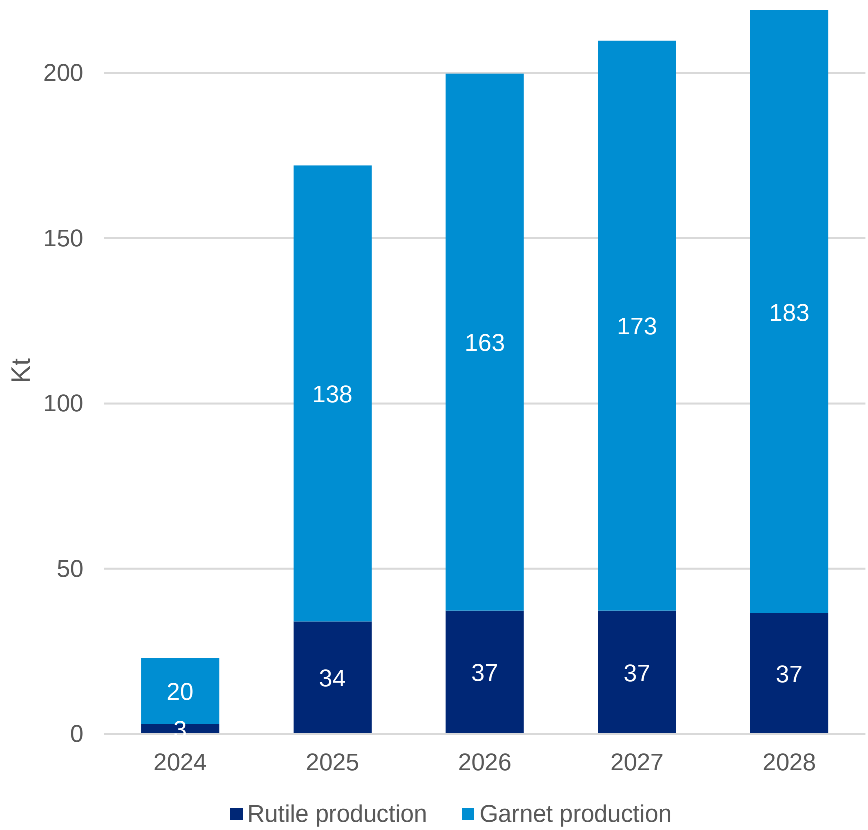
Source: SpareBank 1 Markets, Company, TZMI, Hatch UDFS 2021, 1) Combined resource grade – Measured, Indicated and Inferred

SpareBank 1 MARKETS

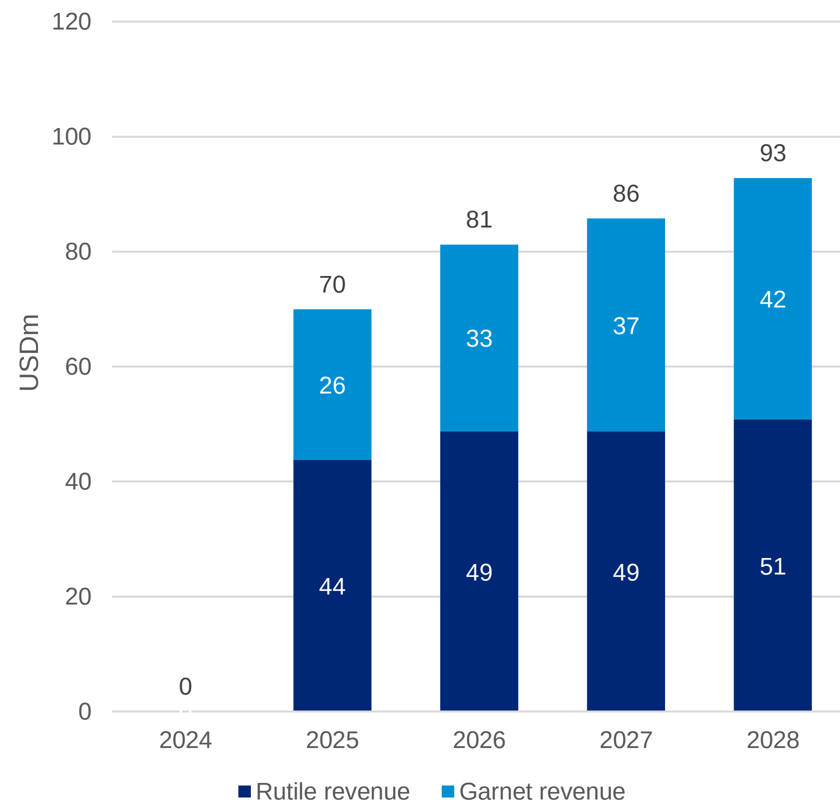
Engebø will be a dual mineral mine with bulk of volume from garnet

…But revenue contribution will be tilted towards rutile as the rutile price is ~6-7x the garnet price. Rutile production will be fully ramped up from 2025 to 34-37 kt/year, while garnet production will be gradually ramped up to 200 kt/year towards 2030

Mineral production volumes SB1Me



Gross revenue split SB1Me



Source: SpareBank 1 Markets, Company

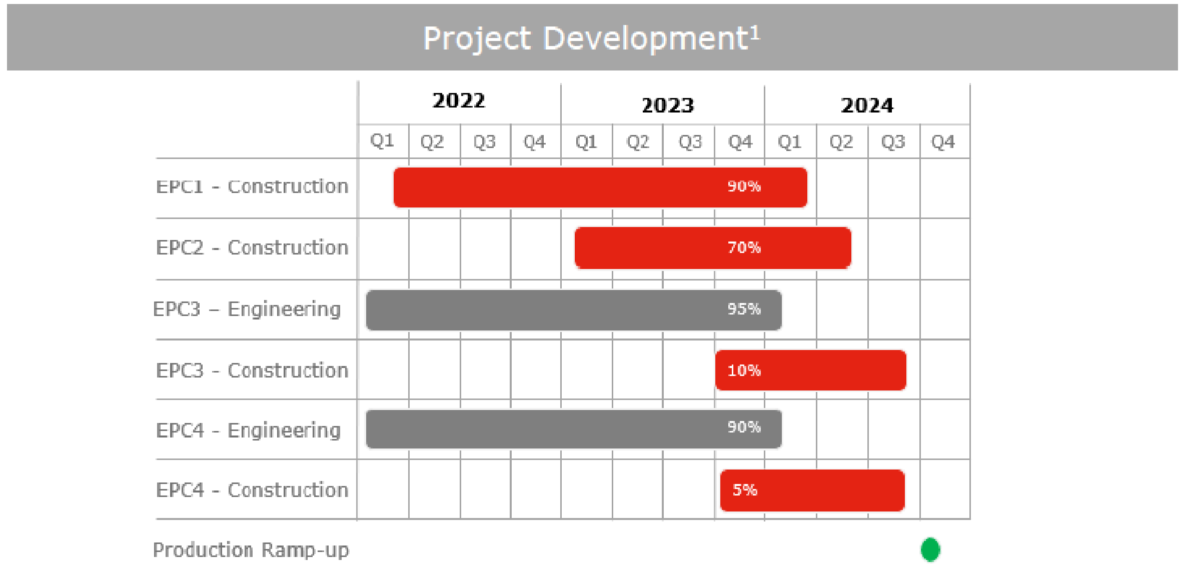
Production start on track for Q4 2024

Approximately NOK 1.12bn of capex had been invested in the Engebø project as per end Q4 23. Mine under construction carrying amount was NOK ~1.4bn which includes capitalized cost and interest

Comments

- Engebø construction progress remains on track for production start in Q4 24.
- In addition to the USD 24m contingency the company now estimates that it will require USD ~5m of the USD 30m project reserve following design freeze process with EPCs and finalization of contracts. We had assumed a USD 12m capex overrun in our estimates. We estimate a trough cash position of USD ~28m at production start and see little risk for further material capex increases following the design freeze process with the EPCs.
- The project progress and budget has been de-risked following cost-to-complete tests by two separate independent engineers before royalty and bond drawdown. These tests serve as a third-party assessment of the Company's projections that the Engebø Project has sufficient funding and will be completed on time.
- EPC1 (primarily groundworks) is now closed to finished with its workscope and has ramped down its activities at the site.
- EPC2 is largely finished with the administration and workshop buildings and is working on the underground crushing chamber and process plant buildings.
- EPC3 (Structural and mechanical) and EPC4 (Electro & installation) have ramped up activities

Project timeline



 Source: SpareBank 1 Markets, Company

The EPC contract providers are regional companies

Constituting USD ~130m of the USD ~210-220m total capex

EPC 1 / Sipa AS - Earthworks

- EPC 1 – NOK 330m (USD ~33m) contract for site wide earthworks. Awarded to Sipa AS, which holds inflation and FX risk. Sipa is owned by four local earthwork companies (normally competitors, which here cooperate). ~150 employees and combined turnover of NOK ~500m in 2020.

EPC 2 / Åsen & Øvrelid – Civil & Buildings

- EPC 2 – NOK 160m (USD ~16m) contract for Civil and buildings. Awarded to Åsen & Øvrelid, which holds inflation and FX risk. The contract covers the construction of non-mining related buildings. Åsen & Øvrelid has constructed several projects in the region and specializes in larger EPC contracts in both the public and private sector. ~180 employees.

EPC 3 / Nordic Bulk – Structural & Mechanical

- EPC 3 – NOK 600m (USD ~60m) contract for Structural & Mechanical work. Awarded to Nordic Bulk, which holds inflation and FX risk. Nordic Bulk shall construct mining related buildings and install mechanical equipment. The buildings are designed by Hatch. Nordic Bulk has more than 30 years of operational experience, and the client list includes Yara, Norske Skog, Veidekke, Norsk Stein, Eramet, Boliden og TiZir. Nordic Bulk has sub-contracted Imtas and Øgreid to carry out 2/3 of its work

EPC 4 / Normatic – Electro & Installation

- EPC 4 – NOK 160m (USD ~16m) contract for Electro and Installation. Awarded to Normatic. The contract value has some adjustment factors, but the raw material component is low. Normatic has delivered software solutions used in maritime, marine, water & sewage, buildings and industrial process plants.

Source: SpareBank 1 Markets, Companies

Offtake agreements support the investment case

NOM has secured sale of up to the full production of rutile and garnet for the first five years

Rutile

Two agreements secure sales for up to the full annual production of rutile for the first 5 years:

- **Iwatani Corporation**. Trading company, founded in 1985, listed in Tokyo
  - 20 kt per year
  - Price determined from TZMI index (small discount).
  - Take or Pay commitment
  - 5Y agreement (from production start). Mutual renewal of 3Y (w/15 months notice)
  - USD 20m equity investment

- **Global TiO2 partner – a "Major pigment producer" -** Binding offtake signed in October 2022.
  - Terms are confidential, but combined with the Iwatani offtake this agreement secures sale of up to the full rutile production the first five years of production.

Garnet

Production will ramp up to 200kt per year towards 2030 (~15-20% of global garnet market). Offtake agreement secures sale of the entire garnet production first 5 years.

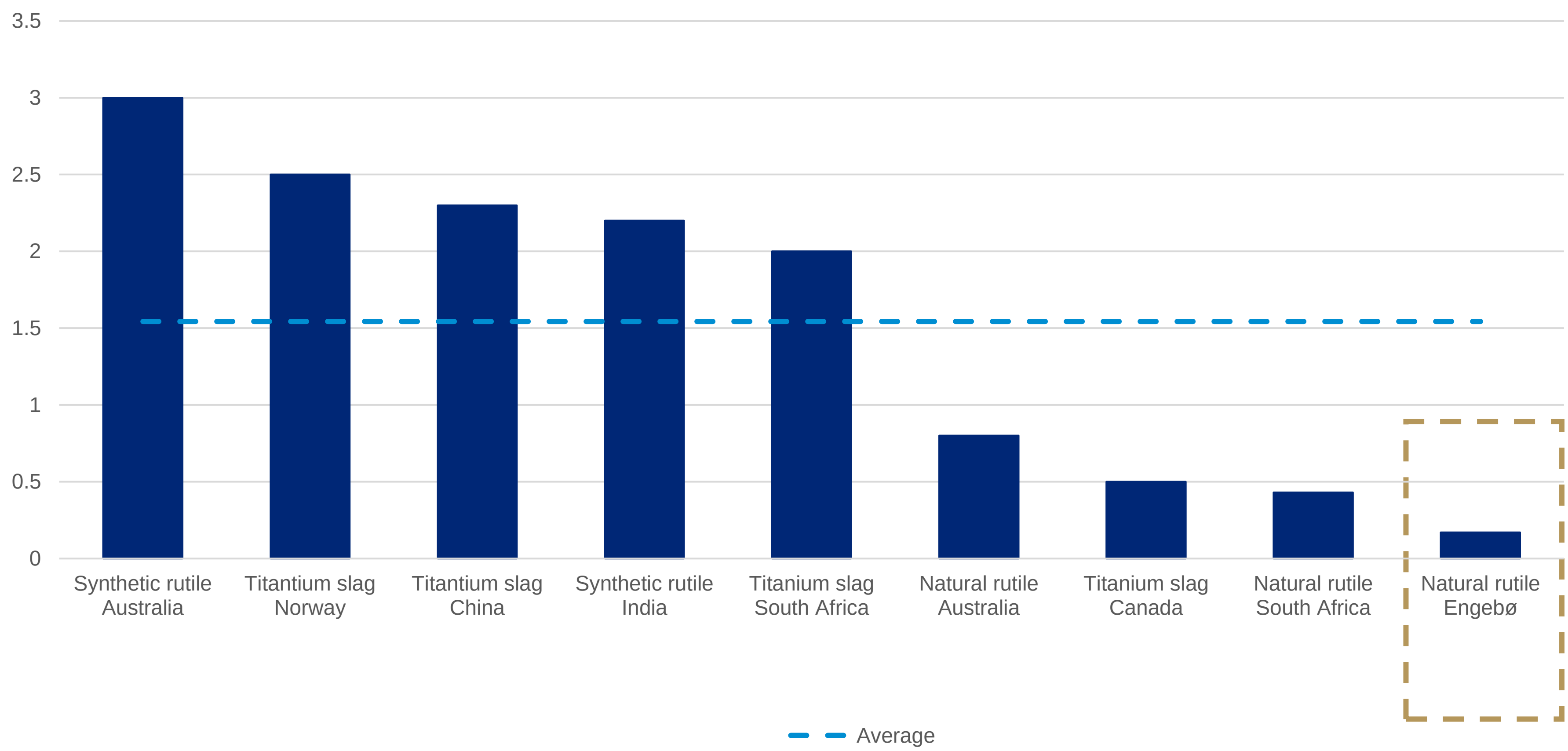
- **"Leading international distributor of industrial abrasives"**
  - Offtake agreement for the full planed garnet production the first 5 years of operation.
  - Minimum total volume of 762.5 kt up to a maximum of 785 kt over the 5-year contract period.
  - Take or pay commitment based on pre-agreed price schedule with a steeper "discount" in the initial years.
  - In addition to the offtake agreement, the parties shall discuss an extension of the cooperation. This includes joint marketing, sales and distribution from Engebø.

Source: SpareBank 1 Markets, Company

Engebø CO2 emissions will be low compared with other TiO2 alternatives

Driven by rutile having a high (95%) TiO2 content, a high-grade deposit, limited logistics operations at Engebø, and processing based on hydropower

kgCO2 eq. per kg product concentrate



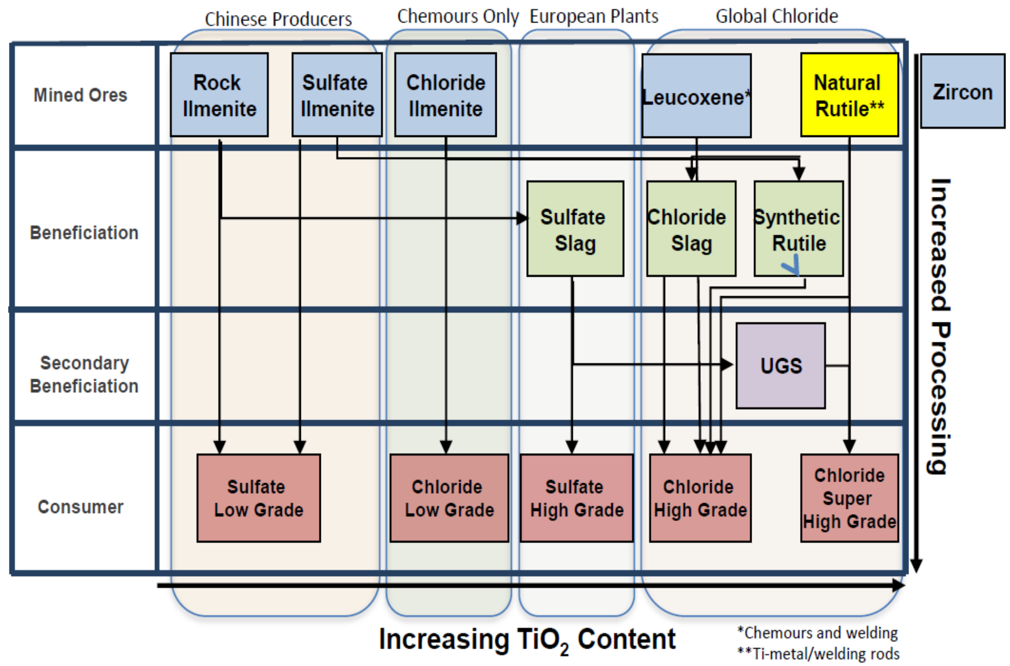
Source: SpareBank 1 Markets, Company

Market

Natural Rutile is the purest titanium feedstock

…other TiO2 sources go through a beneficiation (treatment) process, which is polluting

- Titanium feedstocks are raw materials containing TiO2, titanium dioxide, and is mainly found in ilmenite, leucoxene and rutile.
- The chart to the right illustrates that most titanium feedstocks require beneficiation i.e. a treatment process which remove gangue (worthless) minerals, resulting in a higher grade product and a waste stream.
- **Natural Rutile** has a 95-96% TiO2 content, and is the cleanest and purest form of titanium feedstock, and is the only feedstock that can be directly used in pigment and metal production, as it has been beneficiated naturally in the earth, thus reducing waste and climate footprint
- **Other forms of TiO2 products are**
  - Upgraded slag (UGS, 95% TiO2), made by Rio Tinto in Sorel Canada, whereby sulfate slag (made from rock ilmenite) is heat treated and acid leached
  - Synthetic Rutile (89-92% TiO2) which is produced from kiln heating and aeration of chloride ilmenite
  - Leucoxene (65-90% TiO2)
  - Chloride slag (85-90% TiO2), which is produced from smelting ilmenite
  - Chloride ilmenite (56-63% TiO2), which is referred to a secondary ilmenite
  - Sulfate ilmenite (44-56% TiO2)



Source: SpareBank 1 Markets, Company, Tronox, TiPMC

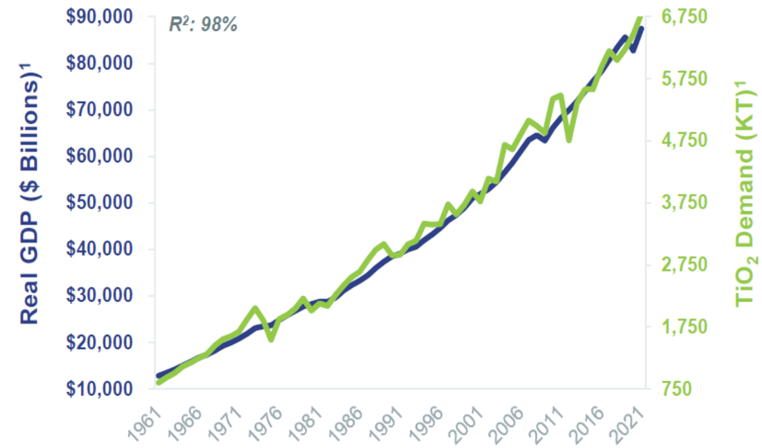
Demand for Titanium dioxide has historically grown with real GDP

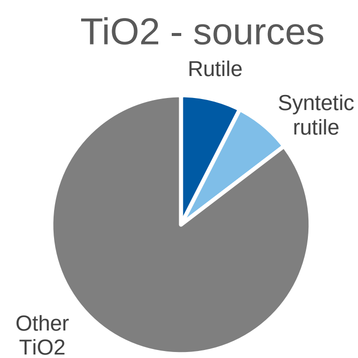
Pigment is the biggest demand source. Natural rutile is the purest Titanium dioxide (TiO2) feedstock, and accounts for ~7-8% of the Ti02 market

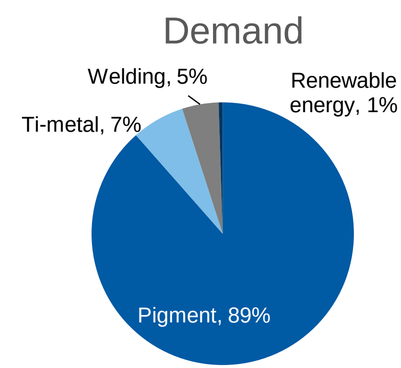
Comments

- **Rutile (Natural + synthetic) accounts for approx. 15% of the global titanium feedstock market** of ~8M TiO2 units. TiO2 = mass in kt x TiO2 content. Natural Rutile has 95% TiO2 content, while ilmenite fx has 50% TiO2 content.
  - The rutile share of supply is split fairly evenly between Natural Rutile and Synthetic Rutile (upgraded ilmenite), with each source supplying approx. ~600kt, representing ~7-8% each of the 8M TiO2 unit market.
- **On EU's critical raw material list**. Since Sep/2020, titanium has been on EU's critical raw materials list. Except for CIS (Ukraine), there are no other major rutile feedstocks in Europe. The mine in Ukraine is likely to be depleted in a few years.
- **Demand for TiO2 is growing in line with GDP**. Over time titanium feedstock demand has grown in line with GDP and is driven by trends such as population growth, higher living standards and urbanization.
- **Demand for rutile is mainly driven by**
  - **Pigment**: i.e. paint, coating and plastic, which is driven by construction and infrastructure spending, consumer spending etc.
  - **Titanium metal**: used in aerospace, defense, healthcare and other industries.
  - **Welding**: shipbuilding and infrastructure
- **Some substitution potential between TiO2 feedstocks**. There is (to some extent) a substitution effect between TiO2 feedstocks, whereby the pigment/titanium metal producer can to some degree substitute between different sources of TiO2.
  - However, choosing a less pure source, may negatively impact the plant performance. Generally speaking, the higher TiO2 head grade one run in a pigment plant on, the higher output one gets.
  - Also, the replacement of rutile in welding (including just switching supplier) is difficult and lengthy, and electrode producers will thus avoid changing the recipe.

Rutile market overview





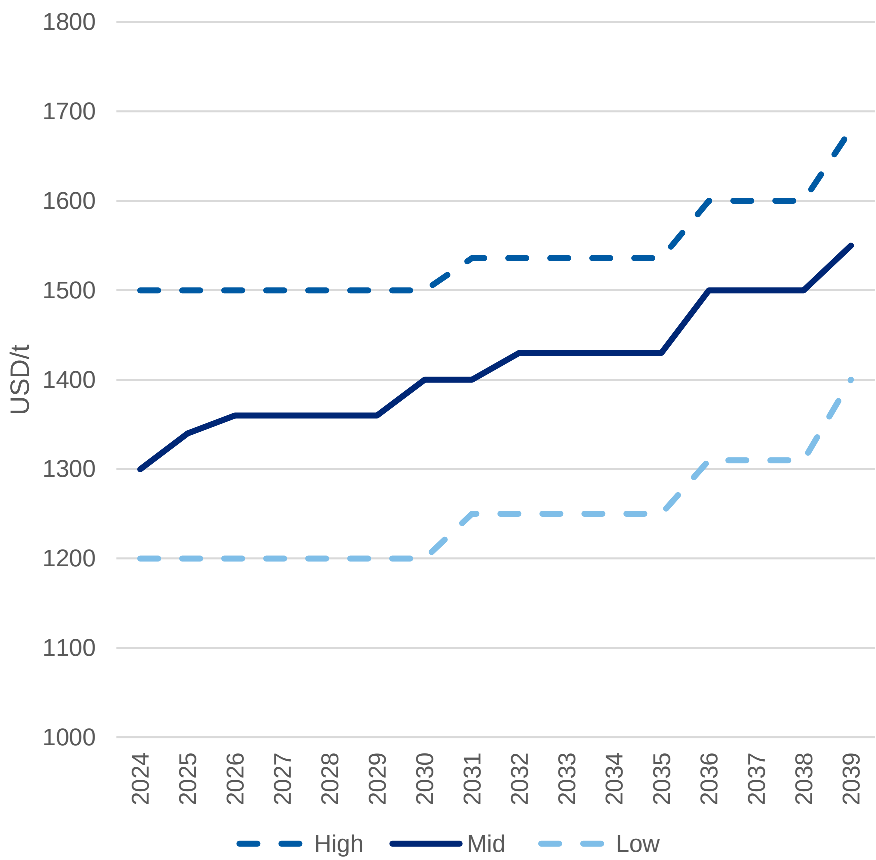


Source: SpareBank 1 Markets, Company, Tronox, TZMI, TiPMC

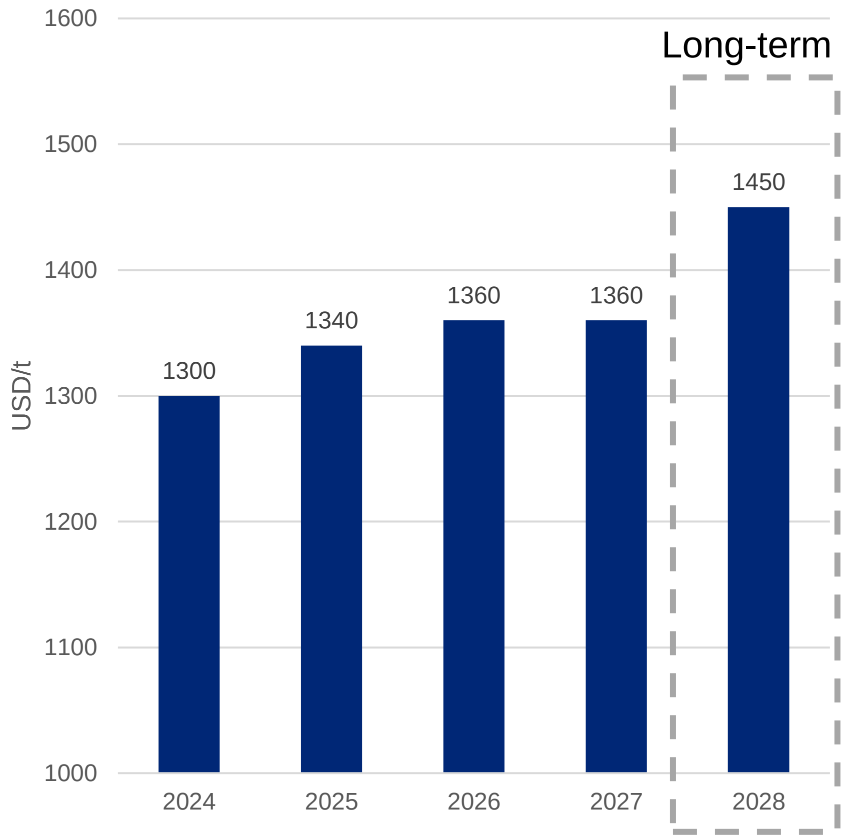
We assume a long-term natural rutile price of USD 1450/t

For simplification we use the TiPMC mid-price strip until 2027 and a flat price of USD 1450/t from 2028, compared with the current rutile price of USD ~1500/t. We model a 4% discount for realized prices at Engebø.

TiPMC natural rutile price scenarios (2022)



Natural rutile price assumption SB1Me



Source: TiPMC, SpareBank 1 Markets, Company

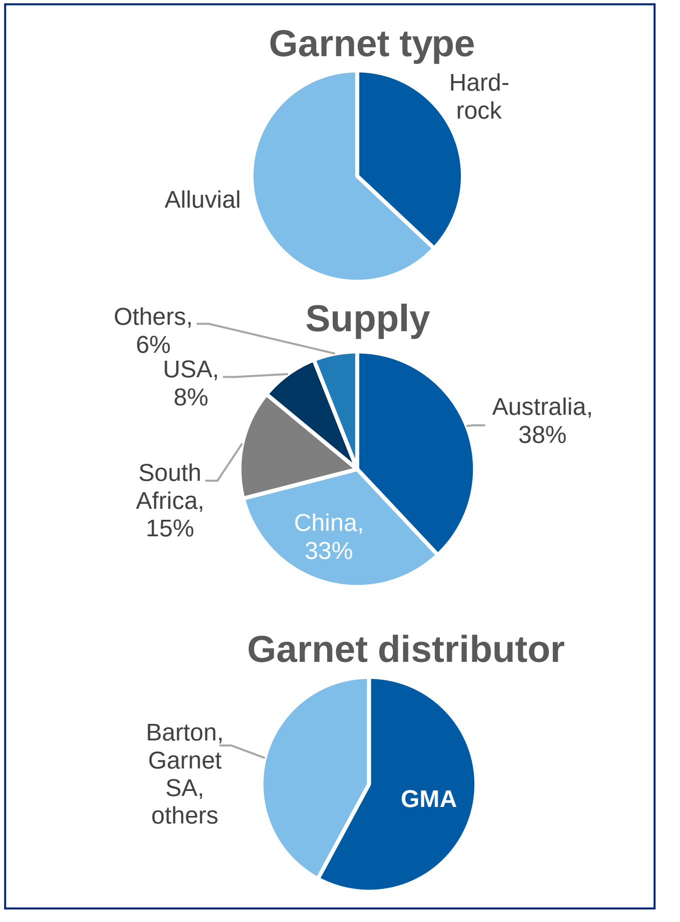
Garnet is produced from hard rocks and alluvial deposits (beach sand)

Australia, South Africa and China are the biggest producers, with GMA being the biggest distributor

Comments

- **Garnet is a silicate mineral found** in
  - **Hard rocks**: like certain igneous (granite, basalt) and metamorphic (contact skarns) rocks.
  - **Alluvial deposits** derived from these rocks through erosion, transportation along coastal shorelines and river banks (beach sand minerals).
- **Global garnet production is around ~950kt**, down from 1.7mt in 2013, and the biggest producers are Australia, China, South Africa, and the USA.
  - Hard-rock garnet is produced in China and parts of the USA
  - Alluvial deposits is produced in Australia, South Africa and others
  - India has been driving the global supply drop since 2013. India was a big producer of alluvial garnet from beach sand minerals up to 2013 (producing 700-800kt at peak). But, in 2016 supply was curbed through the Atomic Minerals Concession Rules (AMCR) which stated that beach sand minerals containing 0.75% of monazite (thorium, can be enriched to uranium), or more, would be reserved for Government-owned companies only. In 2018, India canalized all BSM exports through State run Indian Rare Earths (IREL). Private players were prohibited from producing or exporting garnet and 2019-20 garnet production was close to inexistent at 552 tons.
- **Distribution. GMA is the largest distributor globally**. GMA distributes 550kt of garnet to 80+ countries worldwide. Other distributors include Barton (in the USA), Tormin (Garnet SA), Shape Mined Materials, Opta Minerals, IREL, Trimex, Jinhong Mining Co, Sinogarnet and Rizhao Garnet

Garnet market overview



 Source: SpareBank 1 Markets, Company, Peter Harben

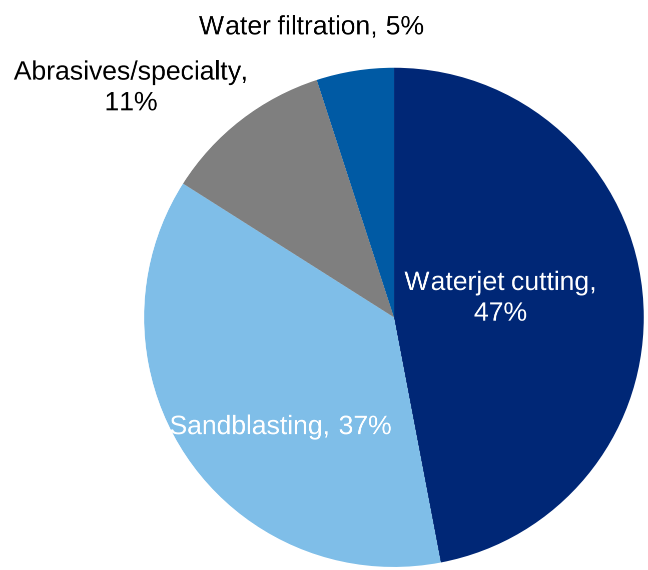
Demand is driven by waterjet cutting and sandblasting

The Engebø garnet should be ideal for waterjet cutting given its hard-rock attributes

Comments

- Garnet is used in different applications
  - **Industrial water jet cutting accounts for ~47% of demand**. Garnet is the only viable mineral for this process. Both alluvial and hard rock garnet is used, but as **hard rock garnet** is angular and when crushed generates sharp-edged grains, it **is preferrable**.
    - **About waterjet cutting**: water and an abrasive (garnet) is forced through a very small sapphire orifice so the mixture exits the mixing tube at 1000 feet/sec. The garnet coarse can range from 60-220 mesh, with 80 mesh being the most common. WJC can cut through metals, alloys, ceramics, glass, composites, rubber, wood and stainless steel, and has improved the production process for fx. Cars and aircrafts.
    - **Engebø will be producing hard rock garnet with a mesh of 80.**
  - **Sandblasting accounts for 37% of demand**. **Alluvial garnet** is sub-angular, naturally polished and rounded and **is** the **preferred** abrasive.
    - Garnet is a completely inert mineral (i.e. chemical inactive) without health implications, unlike some silica sand and slag (no longer permitted to use in Europe, US)
  - **Abrasive coated paper and cloths+, account for 11% of demand**
  - **Water filtration**
- **Garnet is easily recyclable** and can be recycled several times without any significant loss in its qualities.
- **Demand drivers include GDP** related (industrial production, infrastructure spending) factors, **technical developments** (drive waterjet cutting), **legislation** (Europe banned sand blasting alternatives to garnet such as silica sand and slag in 1950s-60s, while the US followed in 2016), transportation costs.

Garnet demand



Source: SpareBank 1 Markets, Company, Peter Harben

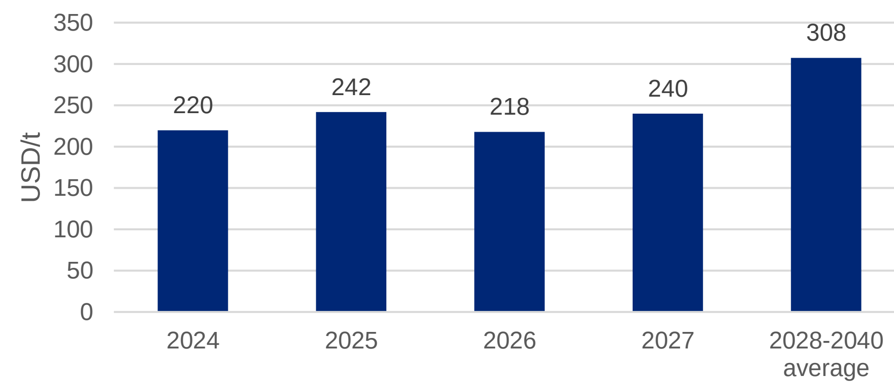
We assume a long-term realized garnet price of USD 230/t for the Engebø project

Engebø will add significant volumes to the garnet market, but the product has several advantages compared with other suppliers

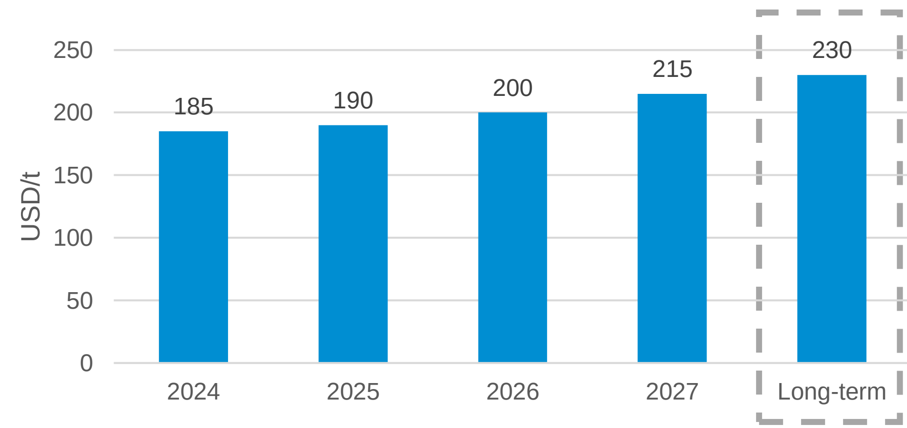
Comments

- In a report from late 2022 Peter Harben **estimated garnet prices of USD 220/t** in **2024, USD 242/t** in **2025, USD 218/t** in **2026** and USD 240/t in 2027. The 2028-2040 average was USD 308/t.
- Garnet is not a quoted market and prices are individually negotiated based on factors such as hard rock vs alluvial, coarseness, distribution charges, volume discounts, freight etc.
- Our impression is that Nordic Mining accepted a significant volume discount in their offtake agreement, considering that the agreement guarantees that NOM is able to sell its entire volume which constitutes 15-20% of the current global garnet market. Our understanding is that the “discount” will be steeper in the initial years.
- The pre-agreed price-schedule in the offtake agreement has not been disclosed. We assume that the Engebø realized price will be closer to the “fair” market price towards 2030 as the Engebø product builds a market position and pricing power (high switching costs for garnet in waterjet cutting)
- **Engebø advantages include**: Engebø will be the only European based supplier of hard rock garnet, and the main supplier of hard rock garnet outside of China. Hard rock garnet is ideal for waterjet cutting, expected to grow faster than other sources of demand. Engebø is located closer to key markets than other supply, resulting in lower freight costs.

Peter Harben Garnet FOB price forecasts (2022)



SB1Me Engebø realized garnet price assumption



 Source: Peter Harben, SpareBank 1 Markets, Company

Potential revenue boost through sale of tailings

This is not included in our estimates and represents an upside, although likely relatively small

Comments

- NOM is evaluating opportunities to sell parts of the tailings from the Engebø project. Such agreements would be a win-win situation as it will increase revenue with very limited additional opex and reduce the volume of tailings requiring disposal.
- Potential commercially viable tailings include pyrite and high-density rock to be used as for instance filling materials. The company believes that over time up to 15% of the tailings could be commercial.
- We have not included any revenue from sale of tailings in our estimates which could represent a small boost on top of our estimates. Our impression is that such sales would result in very limited additional capex & opex and therefore end up almost entirely as additional EBITDA.

Tailings MoU's

- In Q1 2023 NOM announced an MoU for a long-term cooperation for the offtake of pyrite from Engebø with trading company Green Trail Holding. Our impression is that the monetary potential from the sale of pyrite is fairly limited in the area of USD 1.5-2m per annum. However, the increase in opex would be negligible and the revenue would end up almost entirely as EBITDA.
- In Q3 2023 the company announced an MoU with Saferock for a joint product development project on applicability of tailings from the Engebø project in production of cement binders.

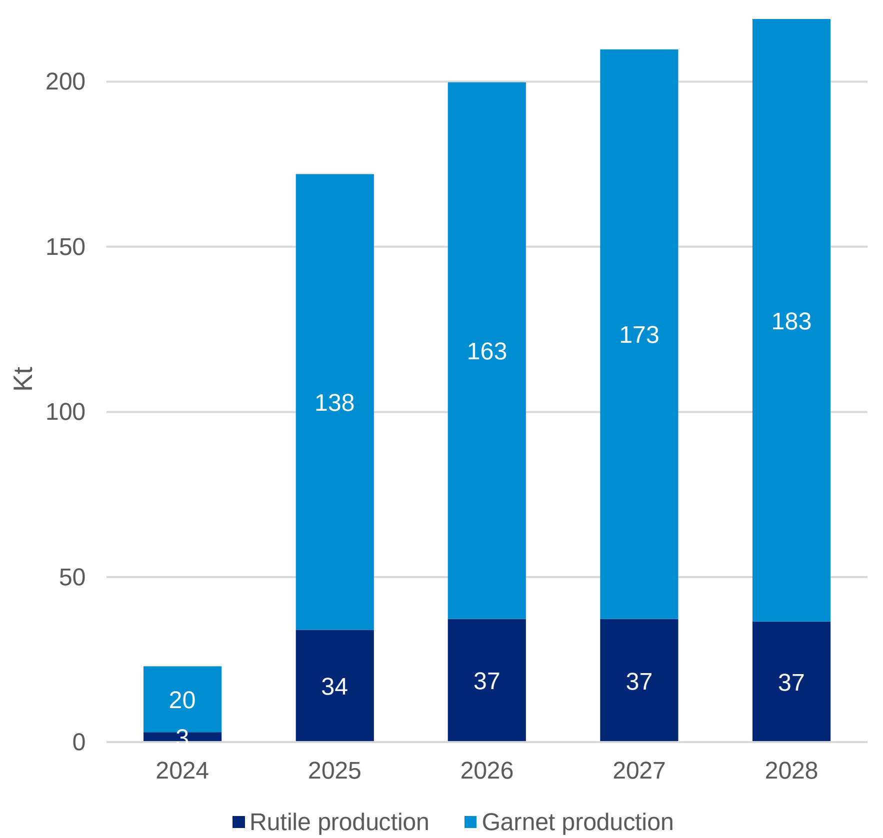
Source: SpareBank 1 Markets, Company

Financials & Valuation

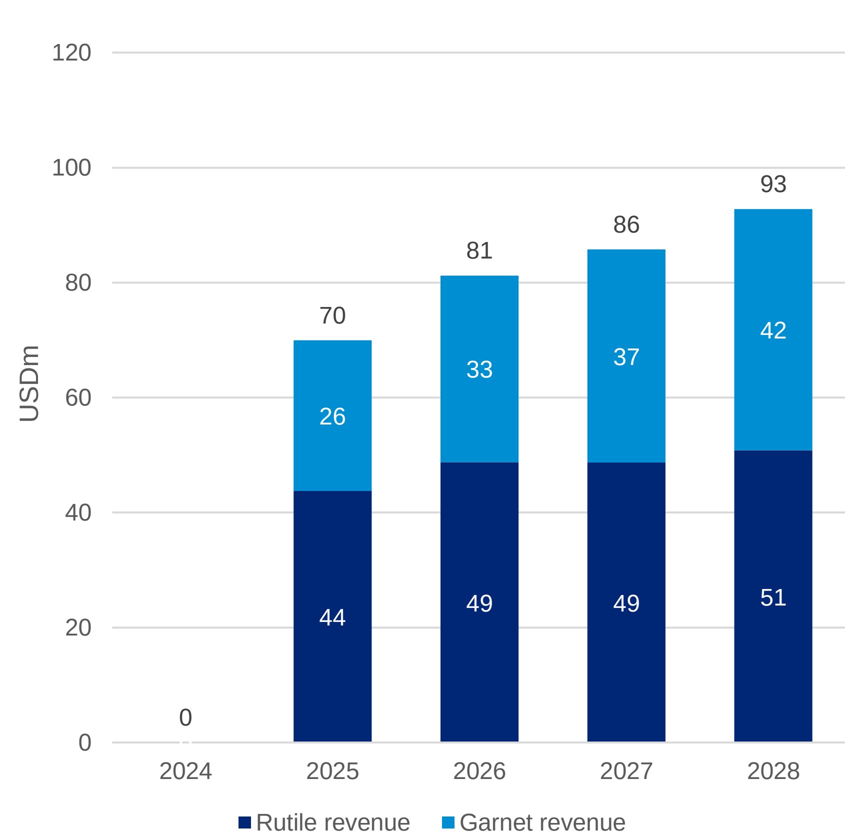
Engebø will be a dual mineral mine with bulk of volume from garnet

…But revenue contribution will be slightly tilted towards rutile as the rutile price is ~6-7x the garnet price. Rutile production will be fully ramped up from 2025 to 34-37 kt/year, while Garnet production will be gradually ramped up to 200 kt/year towards 2030

Mineral production volumes



Gross revenue split SB1Me

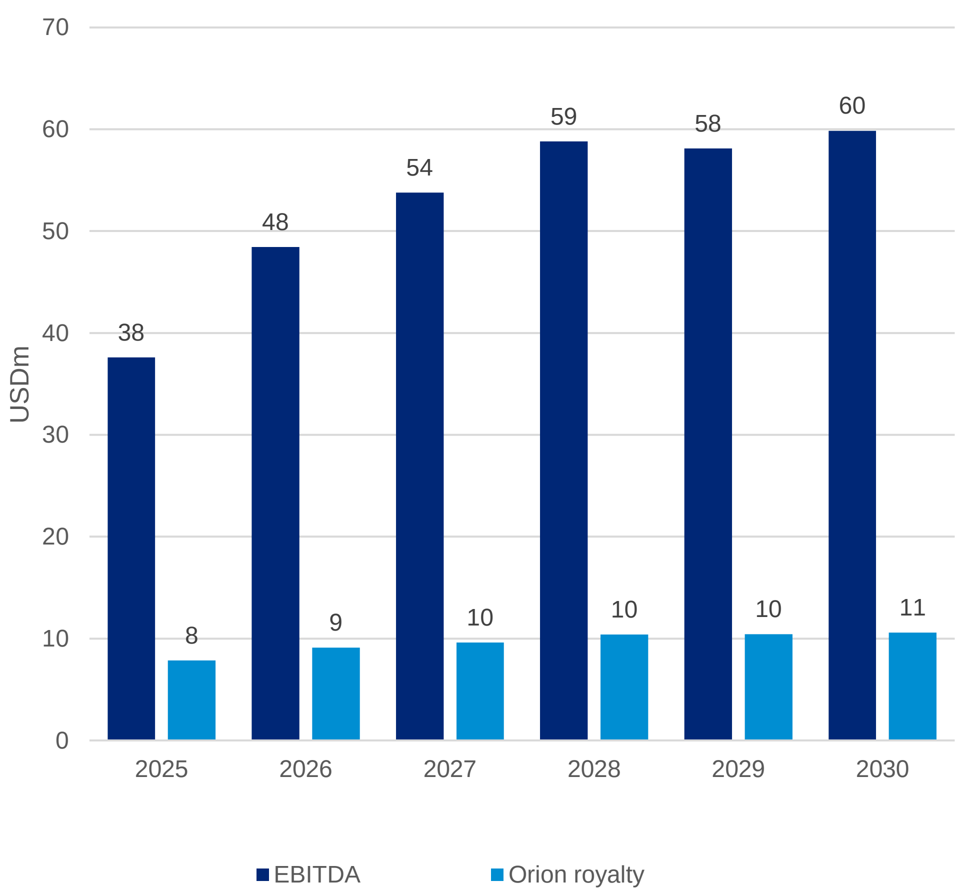


Source: SpareBank 1 Markets, Company

We estimate EBITDA generation of USD ~310m from 2025-2030

Once the mine ramps up EBITDA generation is expected to be strong

EBITDA and royalty payments SB1Me



Comments

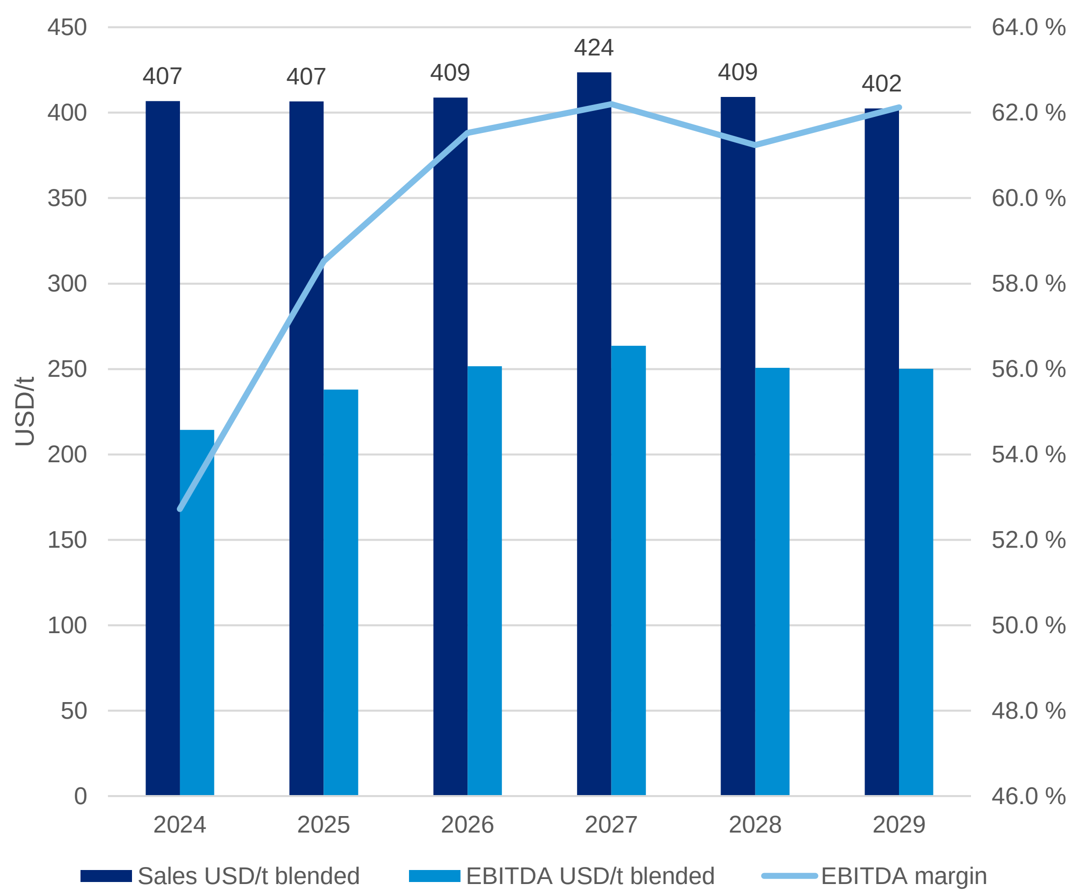
- Sales are subject to achieved price and volume sold.
- Orion royalty proceeds/payments are considered as operating revenue/costs and are therefore included in EBITDA.
- **Our operating cost estimates assume:**
  - Open pit mining cost of USD ~2.5/t (ore+waste). Mining cost will increase significantly from 2037 when underground mining commences
    - Engebø is located in the lower energy cost region NO3
  - Processing cost of USD 7/t of processed ore (capacity at 1.5Mt p.a.)
  - SG&A of USD 2.1/t processed ore plus USD 2m per annum in corporate overhead
  - Orion royalty costs at 11% of gross sales
  - Revenue royalty of 0.5% of sales and Garnet royalty of 1.75% of garnet sales from open pit (i.e. until ~2037).

Source: SpareBank 1 Markets, Company

Low-cost mining operations ensure strong margins

We estimate EBITDA margins of ~60%

Blended sales EBITDA/t and EBITDA margins SB1Me



Comments

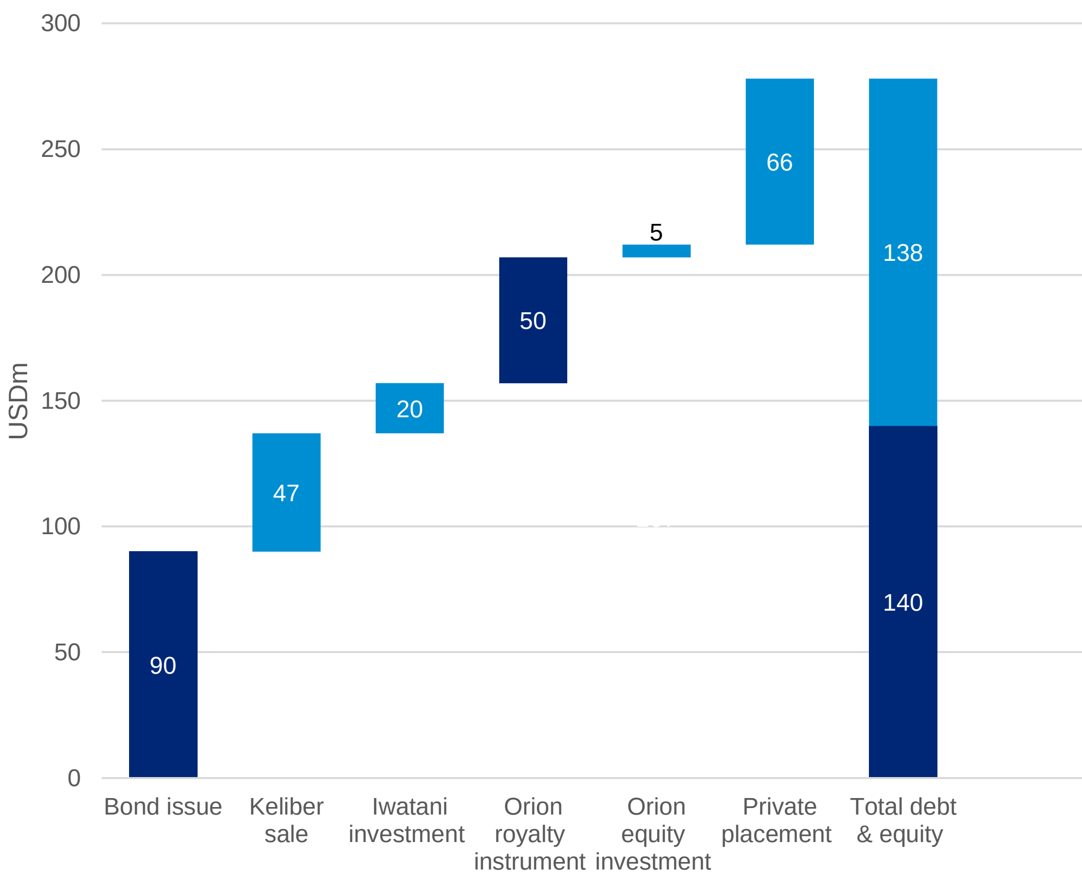
- We estimate an average EBITDA margin of ~60% in 2025-2030
- Our estimates assume a blended 2025-2030 sales price in the range of USD 402-424/t and a blended 2025-2030 EBITDA of USD 214-264/t.
- Including royalty payments our estimates imply a revenue/ operating cost ratio of 2.1x-2.4x in 2025-26, before improving to 2.6x in 2027-28, on the back of higher commodity prices
- Excluding the royalty payments, revenue/ operating cost ratio is 2.8x-3.3x in 2025-26, before improving towards 3.6x-3.8x in 2027-28.

Source: SpareBank 1 Markets, Company

Financing structure

The project financing is ~50/50 debt and equity

Engebø project financing overview



Comments

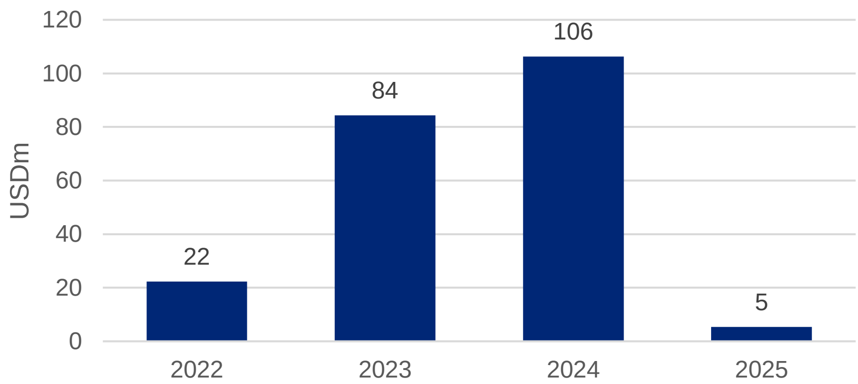
- The financing package for Engebø is ~USD 280m, including a project reserve of USD 30m.
- The financing package ended at ~50/50 debt and equity
- The debt financing comprises of a USD 50m royalty instrument from Orion Resources and a senior secured bond of ~USD 100m issued at 90. The bond is currently trading around 96.
- The equity financing comprised of the proceeds from the sale of NOMs stake in Keliber of ~USD47m, a USD 20m investment from offtake-partner Iwatani, a USD 5m investment from Orion Resources and a broader private placement of ~USD 66m that was completed in March 2023.
- The company also received subscriptions for USD ~8m in the subsequent offering (63% of the total subsequent offering)
- A convertible loan of USD 16m was provided by a consortium of local EPC partners in January 2022 and was used to fund the acquisition of the main properties at Engebø and early construction work. The convertible loan is not a part of the USD ~280m project financing, but was converted to equity in conjecture with the March 2023 private placement

 Source: SpareBank 1 Markets, Company

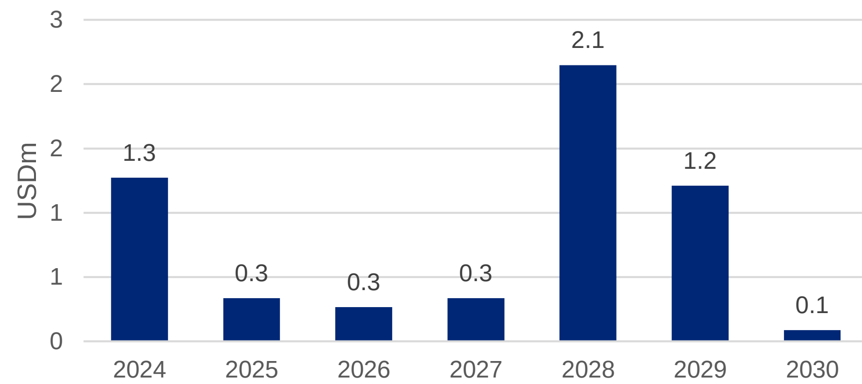
Capex schedule

We assume remaining development capex of USD 111m as per end Q4 23

Development capex SB1Me



Sustaining capex SB1Me



Comments

- We assume remaining development capex of USD 111m as per end Q4 23.
- The company has guided that it expects to spend the USD 24m contingency and will also require USD 5m of the USD 30m project reserve. We see little risk for further material capex increases following design freeze processes with the EPCs.
- We estimate a trough cash position of USD ~28m at production start, giving sufficient headroom to the USD 15m minimum liquidity requirement.

Comments

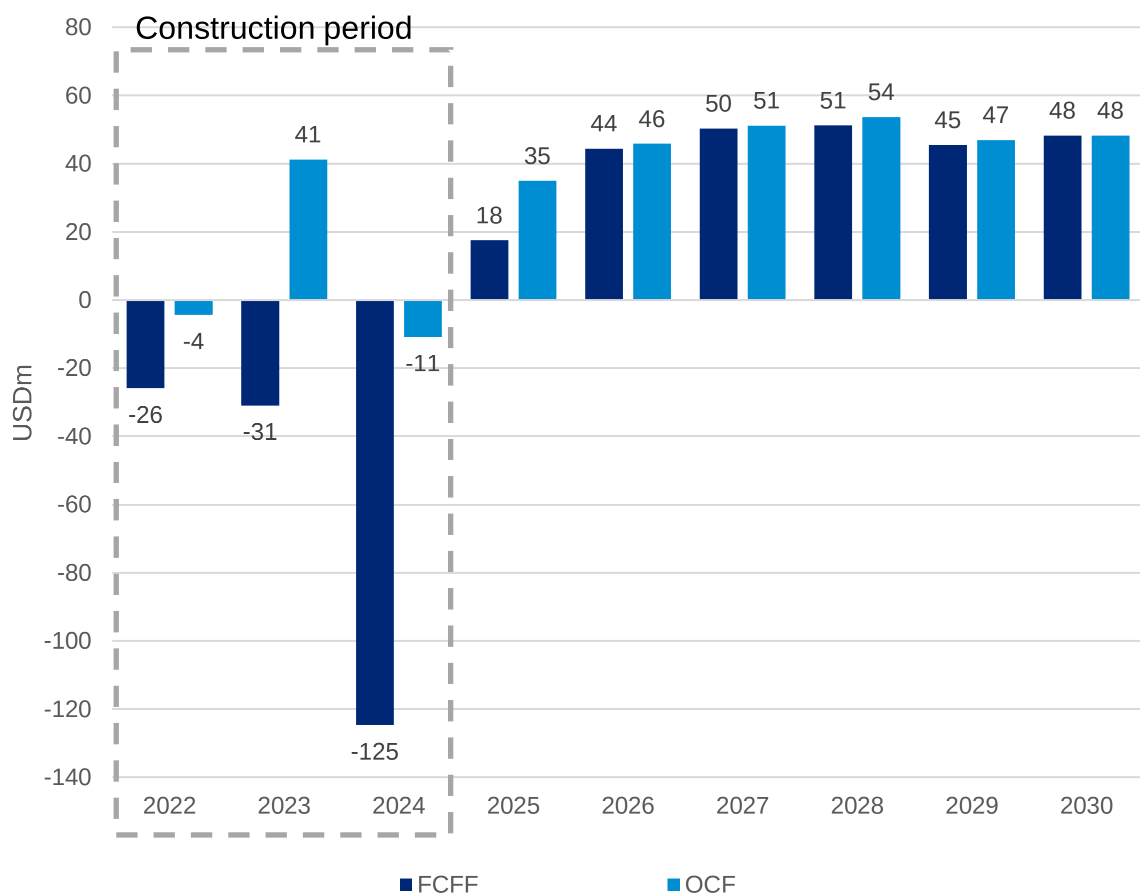
- The sustaining capital requirements are limited with an average of USD ~0.9m per annum from 2024-2030 .

Source: SpareBank 1 Markets, Company

We estimate unlevered FCF of USD ~250m in 2025-30

Low sustaining capital requirements ensure strong free cash flow generation and a payback time of approximately 5 years

Operational cash flow and free cash flow to firm SB1Me



Comments

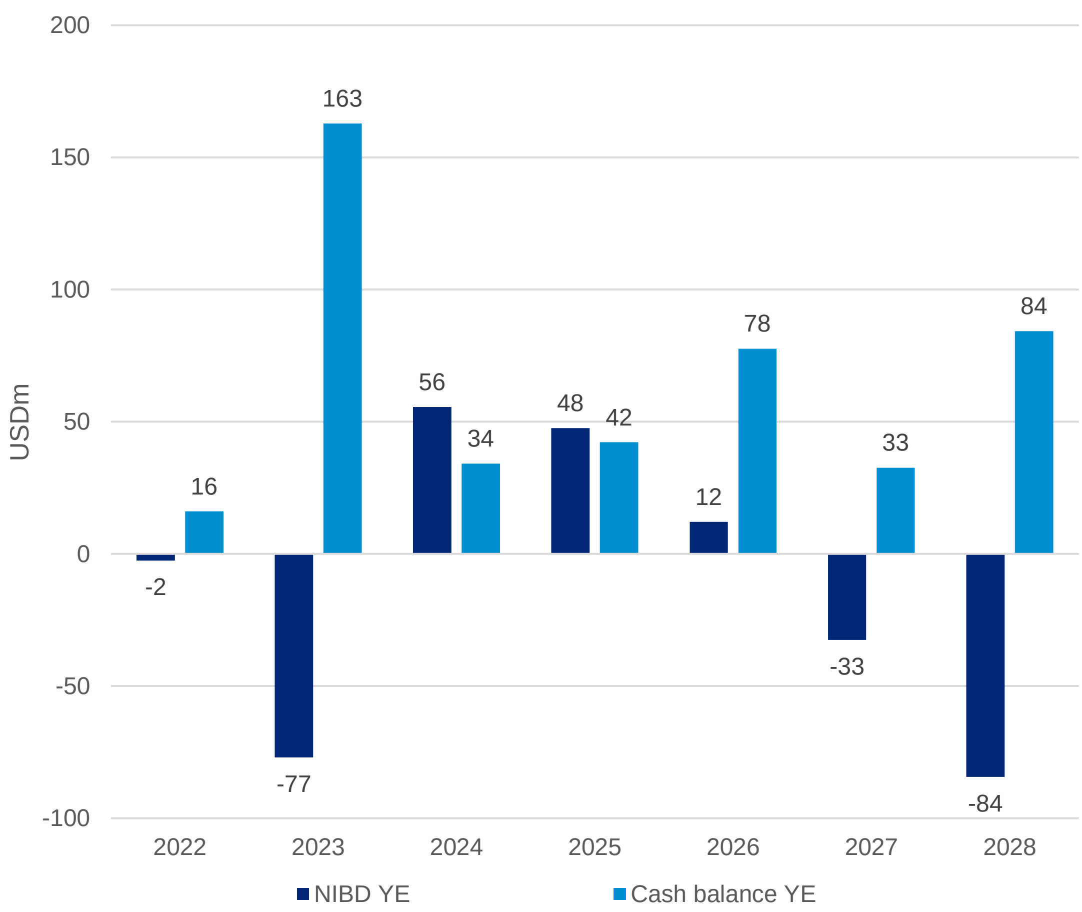
- Our OCF and FCFF estimates include Orion royalty proceeds/payments, but exclude bond interest payments
- Bond interest payments will total ~USD 62.5m over the period 2022-2027 (12.5% coupon and USD 100m principal).
- Royalty payments will be equal to 11% of gross revenue and will amount to USD 9-11m per year in the ramp-up period towards 2030.
- OCF and FCFF will be very similar once the mine is up and running due to limited sustaining capital needs driven by a simple processing technology and orebody with minimal overburden and low strip ratio.
- The company has a tax loss carryforward and will not pay taxes before 2028 on SB1Me.

Source: SpareBank 1 Markets, Company

Strong cash generation leaves room for significant dividend payments

However, the company is also looking at other growth opportunities, including a quartz project. Hence, we would expect FCF to be used as a combination of dividends and funding growth

NIBD and cash position profile SB1Me



Comments

- We exclude the Orion royalty from NIBD as these proceeds/payments are considered operating revenue/expenses.
- On SB1Me the company will be able to repay the full bond principal of USD 100m in Q3 27 without any refinancing. However, we would consider a partial refinancing as likely.
- The cash position development illustrated does not include any refinancing.
- The financial covenants on the bond are: 1) a minimum of USD 15m in cash at all times, and 2) a minimum book equity ratio of 25% at each quarter date.

 Source: SpareBank 1 Markets, Company

Solid project economics with LOM after-tax unlevered IRR of ~20% on SB1Me

Our base case assumes a long-term rutile price of USD 1450/t (4% discount FOB Engebø) and a realized garnet price of USD 230/t

Project after-tax unlevered IRR SB1Me

Long-term Garnet price	Long-term Rutile price: 1300	1350	1400	1450	1500	1550	1600
290	21.7 %	22.0 %	22.3 %	22.5 %	22.8 %	23.1 %	23.3 %
270	21.1 %	21.3 %	21.6 %	21.9 %	22.2 %	22.4 %	22.7 %
250	20.4 %	20.7 %	21.0 %	21.2 %	21.5 %	21.8 %	22.1 %
230	19.6 %	20.0 %	20.3 %	**20.6 %**	20.9 %	21.1 %	21.4 %
210	18.9 %	19.2 %	19.5 %	19.8 %	20.2 %	20.5 %	20.8 %
190	18.1 %	18.4 %	18.8 %	19.1 %	19.4 %	19.7 %	20.1 %
170	17.2 %	17.6 %	18.0 %	18.3 %	18.6 %	19.0 %	19.3 %

Source: SpareBank 1 Markets, Company

EBITDA sensitivities based on achieved prices and volumes

SB1Me assumes long-term commodity prices of rutile at USD 1450/t (4% discount FOB Engebø) and a realized garnet price of USD 230/t from 2028. We assume 2028 rutile sales of 36.5 kt and garnet sales of 182.5 kt. While rutile sales will reach long-term capacity during the first full year of production, garnet volumes will be ramped up to 200kt/year towards 2030

2028 EBITDA sensitivity on market prices (USDm) SB1Me

		Long-term Rutile price						
		1300	1350	1400	1450	1500	1550	1600
Long-term Garnet pirce	290	63	64	66	67	69	70	72
	270	59	61	62	64	66	67	69
	250	56	58	59	61	62	64	66
	230	53	55	56	**58**	59	61	62
	210	50	51	53	55	56	58	59
	190	47	48	50	51	53	54	56
	170	44	45	47	48	50	51	53

2028 EBITDA sensitivity on volumes sold (kt) (USDm) SB1Me

		Rutile volume						
		30	32	34	36	38	40	42
Garnet volume	215	56	59	61	64	66	69	71
	205	54	57	59	62	64	67	69
	195	52	55	57	60	62	65	67
	185	50	53	55	**58**	60	63	65
	175	48	51	53	56	58	61	63
	165	46	49	51	54	56	59	61
	155	44	47	49	52	54	57	59

Source: SpareBank 1 Markets, Company

EBITDA sensitivities based on cost assumptions

Low-cost operations ensure high margins and low sensitivity to increases in opex

2028 EBITDA sensitivity on changes in mining and processing cost (75% of operating cost ex. Royalty) USDm SB1Me

		Mining cost							
		-30%	-20%	-10%	Base case	+10%	+20%	+30%	+40%
Processing cost	-30%	68	67	66	65	64	63	63	62
	-20%	67	66	65	64	63	62	61	61
	-10%	65	65	64	63	62	61	60	59
	Base case	64	63	63	**62**	61	60	59	58
	+10%	63	62	61	61	60	59	58	57
	+20%	62	61	60	59	59	58	57	56
	+30%	61	60	59	58	58	57	56	55
	+40%	60	59	58	57	56	56	55	54

Source: SpareBank 1 Markets, Company

We estimate a YE25 NAV of NOK ~30/sh

NOM is currently trading at ~0.64x SB1Me YE25 NAV.

Valuation

Asset	Ownership	Net value USDm	Net value NOKm	NOK/sh
Engebø NPV YE25	100%	362	3805	35.1
NIBD YE25	100%	56	587	5.4
NOM YE25 NAV		**306**	**3218**	**29.7**
Target price		**260**	**2 602**	**24.0**
..Implied discount to YE25 NAV				19%
Key metrics				
Engebø after tax unlevered IRR		20.6%		
P/YE25 NAV		0.64x		
TP/YE25 NAV		0.81x		

Long-term Rutile price	Normalized WACC 9%	10%	11%	12%	13%	14%	15%
1600	42.1	38.1	34.8	31.9	29.3	27.1	25.1
1550	41.1	37.3	34.0	31.1	28.7	26.5	24.6
1500	40.1	36.4	33.2	30.4	28.0	25.9	24.0
1450	39.1	35.5	32.4	**29.7**	27.3	25.3	23.4
1400	38.2	34.6	31.6	29.0	26.7	24.6	22.9
1350	37.2	33.7	30.8	28.2	26.0	24.0	22.3
1300	36.2	32.9	30.0	27.5	25.3	23.4	21.7

Comments

- How should one look at valuation in Nordic Mining? For most mining companies we prefer to use a life of mine DCF primarily based on production & cost assumptions from a Feasibility Study with some adjustments and a conservative commodity price strip. We believe this is the most sensible approach as mining projects have a relatively short and predefined lifetime.
- In the case of development projects like Nordic Mining it is reasonable that investors will require a higher return on capital during the construction/ramp up period with elevated risk.
- Consequently, our preferred method for NOM is to value a "derisked" project based on a normalized cost of capital and risk the NAV to account for development risk.
- We assume that the Engebø project can be considered derisked at YE25 when the mine has been producing for approximately one year.
- We assume a normalized unlevered cost of capital of 12% for the Engebø project
- Our life of mine DCF suggests a YE25 equity value of NOK ~30/sh.
- We set our target price to NOK 24/sh, implying a 19% discount to our YE25 NAV

 Source: SpareBank 1 Markets, Company

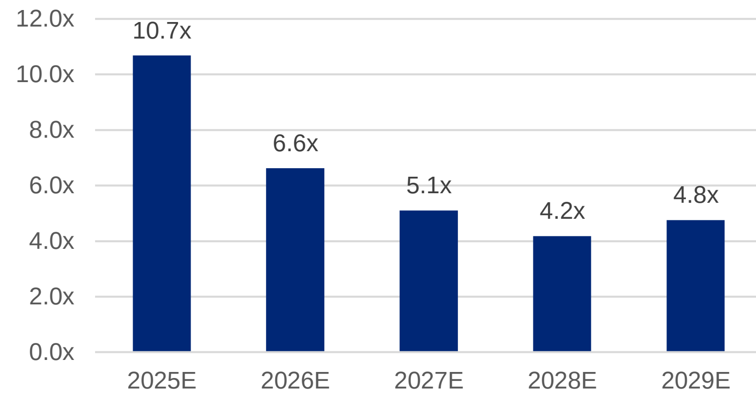
Attractive multiples once the mine is up and running

Multiples decline towards 2030 as garnet production ramps up and rutile and garnet prices rise. The company will not pay any taxes before 2028. First year with full tax expense (22% of net profit) is 2029

Multiples at current share price

	2024E	2025E	2026E	2027E	2028E	2029E
EV/EBITDA	-30.8x	6.5x	4.3x	3.1x	1.9x	1.1x
P/E	-8.9x	10.7x	6.6x	5.1x	4.2x	4.8x
EV/OCF	-15.5x	10.5x	4.6x	3.1x	2.1x	1.3x
Unlevered FCF Yield	-48%	7%	22%	32%	46%	72%
FCFE yield	-65%	4%	18%	-23%	26%	24%

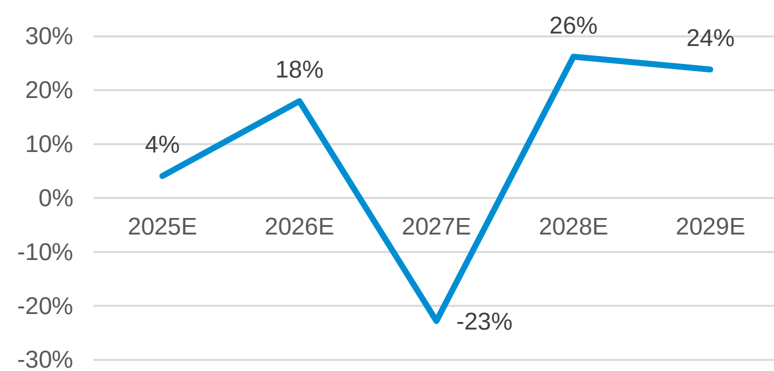
P/E at current share price



Multiples at target price

	2024E	2025E	2026E	2027E	2028E	2029E
EV/EBITDA	-37.0x	7.9x	5.4x	4.0x	2.8x	2.0x
P/E	-11.2x	13.4x	8.3x	6.4x	5.3x	6.0x
EV/OCF	-18.6x	12.7x	5.7x	4.1x	3.0x	2.4x
Unlevered FCF Yield	-40%	6%	17%	24%	32%	40%
FCFE yield	-52%	3%	14%	-18%	21%	19%

FCFE yield at current share price



Source: SpareBank 1 Markets, Company

Financial statements

NOKm PROFIT & LOSS	2020A	2021A	2022A	2023A	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Net revenue	**0**	**0**	**0**	**0**	**0**	**740**	**859**	**906**	**980**	**983**	**998**
Total operating expenses	42	61	46	40	86	345	350	342	362	373	369
EBITDA	**-42**	**-61**	**-46**	**-40**	**-86**	**395**	**509**	**565**	**618**	**610**	**628**
EBITDA margin						*53%*	*59%*	*62%*	*63%*	*62%*	*63%*
EBIT	**-43**	**-61**	**-46**	**-40**	**-123**	**321**	**435**	**491**	**544**	**536**	**555**
Pre-tax profit	-33	5	202	-45	-233	194	313	405	555	558	586
Net profit	**-33**	**5**	**202**	**-45**	**-233**	**194**	**313**	**405**	**495**	**435**	**457**

BALANCE SHEET	2020A	2021A	2022A	2023A	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Total Non-Current Assets	129	220	290	1381	2460	2442	2371	2301	2250	2189	2116
Cash and cash equivalents	42	32	169	1710	358	443	815	342	885	1380	1910
Total Current Assets	44	36	1225	1749	477	619	1023	567	1118	1617	2146
Total Assets	**174**	**255**	**1514**	**3130**	**2937**	**3061**	**3394**	**2867**	**3368**	**3806**	**4262**
Total Equity	164	246	454	1529	1296	1489	1802	2208	2703	3138	3595
Total Current Liabilities	8	8	1058	181	181	111	132	142	147	150	149
Total Non-Current Liabilities	2	1	2	1420	1460	1460	1460	518	518	518	518
Total Equity and Liabilities	**174**	**255**	**1514**	**3130**	**2937**	**3061**	**3394**	**2867**	**3368**	**3806**	**4262**
Gross IBD	0	0	143	902	942	942	942	0	0	0	0
Cash	42	32	169	1710	358	443	815	342	885	1380	1910
NIBD	-42	-32	-26	-808	584	499	128	-342	-885	-1380	-1910

CASH FLOW STATEMENT	2020A	2021A	2022A	2023A	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Operational cash flow	-42	-60	-76	-41	-172	245	479	552	566	507	532
Cash Flow from Investing Activities	0	-26	217	-888	-1116	-56	-3	-4	-23	-13	-1
Free cash flow to firm	**-42**	**-86**	**141**	**-929**	**-1287**	**189**	**476**	**548**	**543**	**494**	**531**
Cash flow from Financing Activities	54	76	-67	1364	-64	-104	-104	-1020	0	0	0
Net change in cash	**12**	**-10**	**74**	**435**	**-1352**	**85**	**372**	**-472**	**543**	**494**	**531**

Source: SpareBank 1 Markets, Company

Appendix

Management

IVAR S. FOSSUM
CEO

Read more

JENS GISLE SCHNELLE
CFO

Read more

MAURICE KOK
Commercial Director

Read more

KENNETH NAKKEN ANGEDAL
Managing Director
Engebø Rutile and Garnet

 Source: SpareBank 1 Markets, Company

Board of directors

KJELL ROLAND
CHAIRMAN
Read more

EVA KAIJSER
BOARD MEMBER
Read more

KJELL SLETSJØE
DEPUTY CHAIRMAN
Read more

BENEDICTE NORDANG
BOARD MEMBER
Read more

TOM LILENG
BOARD MEMBER
Read more

Source: SpareBank 1 Markets, Company

Flowsheet and process area description

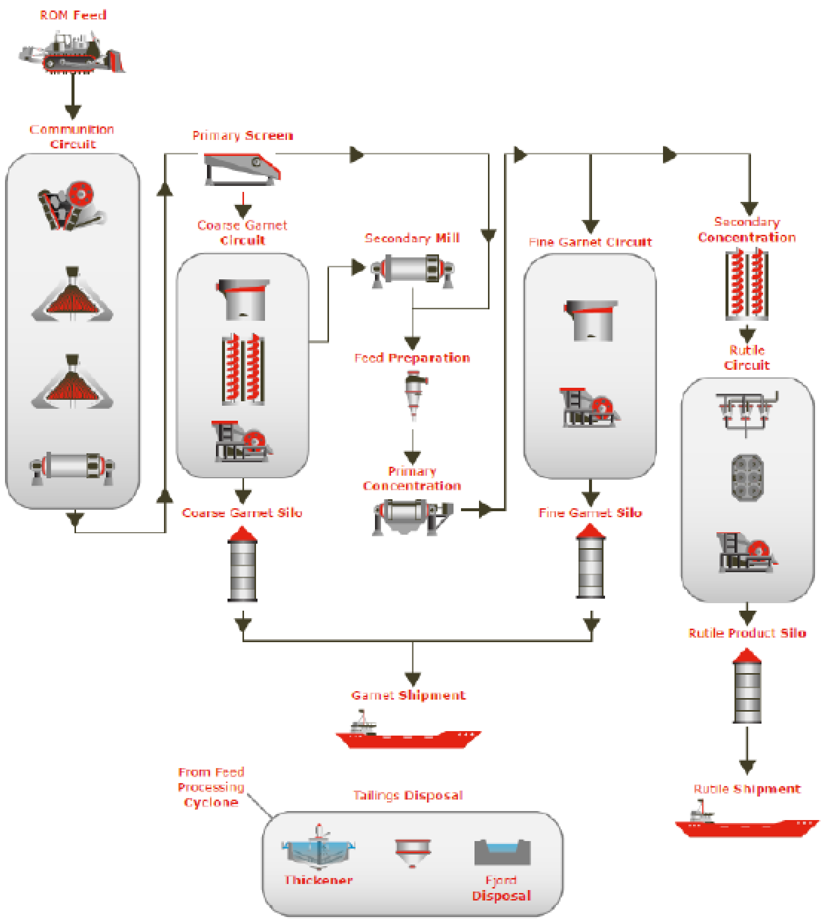


Table 1-14: Process Area Description

	Process Area	Area Description
Comminution Circuit	Run-of-mine (ROM) Feed	Ore from Deposit delivered at 1.5 million tonnes per annum
	Primary Crushing Secondary Crushing Tertiary Crushing	To crush the rocks to a suitable size to prepare for milling
	Stockpile	Buffer between crushing and milling
	Primary Mill	To grind the crushed rocks and liberate the minerals for separation
Process Circuit	Primary Feed Preparation	To classify the material for efficient separation
	Coarse Garnet Circuit	To generate a coarse garnet product stream
	Secondary Milling	To mill the coarse garnet rejects to liberate the rutile
	Feed Preparation Process	To remove ultrafine -45µm material
	Primary Concentration Process	To separate rutile from garnet for fine processing
	Fine Garnet Circuit	Generate a fine garnet product stream
	Secondary Concentration Process	To upgrade the rutile for dry processing
	Froth Flotation	To remove pyrite from rutile concentrate
	Rutile Upgrade Process	To generate a final rutile product
	Tailings Disposal	Final tailings handling and disposal
	Product Silos	To store the final products for shipment

Source: SpareBank 1 Markets, Company

Mineral reserves & resources

Mineral resources (2% TiO2 cut-off)

	Tonnes (Mt)	TiO2 grade (%)	Garnet grade (%)
Measured (M)	29.2	3.60 %	44.50 %
Indicated (I)	104	3.48 %	43.90 %
Total M&I	**133.2**	**3.51 %**	**44.00 %**
Inferred	254.1	3.15 %	41.30 %

Ore reserves

	Tonnes (Mt)	TiO2 grade (%)	Garnet grade (%)
Open Pit			
Proven (P)	19.33	3.56 %	44.25 %
Probable (Pr)	10.33	3.29 %	44.45 %
Total P&Pr	**29.65**	**3.47 %**	**44.32 %**
Underground			
Proven (P)	2.55	3.78 %	44.92 %
Probable (Pr)	24.75	3.66 %	44.42 %
Total P&Pr	**27.3**	**3.68 %**	**44.47 %**

Source: Company

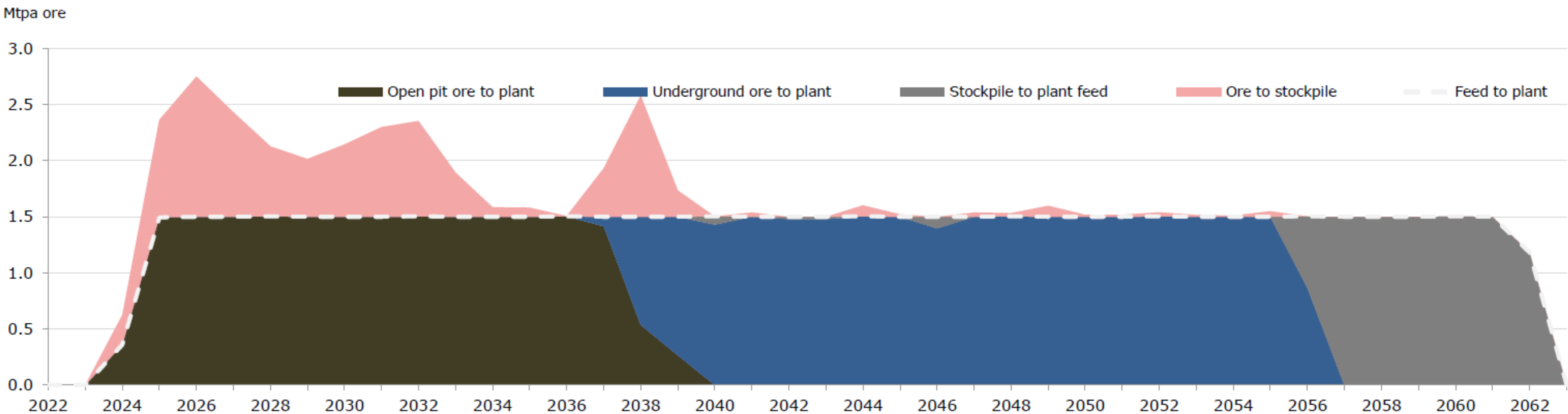
Titanium feedstocks

Feedstock Product	TiO_2 content	Typical applications
Natural rutile	**95-96%**	**Chloride pigment, metal, welding electrodes**
Upgraded slag	95%	Chloride pigment, metal
Synthetic rutile	91-93%	Chloride pigment, metal
Chloride fines	86-92%	Sulfate pigment
Chloride-grade slag	86-92%	Chloride pigment, metal
Leucoxene	65-90%	Chloride pigment, welding
Sulfate-grade slag	75-80%	Sulfate pigment
Chloride-grade ilmenite	58-64%	Chloride pigment, SR manufacture, slag manufacture
Sulfate-grade ilmenite	44-56%	Sulfate pigment, welding electrodes, slag manufacture

Source: Company

Engebø LOM production profile

Production profile



Open pit	
Ore to plant	20.39 Mt
Ore to stockpile	9.26 Mt
Plant feed grade	3.85% TiO_2 / 45.44% Garnet
Life	15 years

Underground	
Ore to plant	27.42 Mt
Ore to stockpile	0.00 Mt
Plant feed grade	3.69% TiO_2 / 44.49% Garnet
Life	18 years

Stockpile	
Stockpile to plant	9.26 Mt
Plant feed grade	2.70% TiO_2 / 41.84% Garnet
Life	6 years

Source: Company

Disclaimer

Disclaimer

SpareBank 1 Markets AS ("SB1 Markets")
This report originates from SB1 Markets' research department. SB1 Markets is a limited liability company subject to the supervision of The Financial Supervisory Authority of Norway (Finanstilsynet). SB1 Markets complies with the standards issued by the Norwegian Securities Dealers Association (VPFF) and the Norwegian Society of Financial Analysts. This message, and any attachment, contains confidential information and is intended only for the use of the individual it is addressed to, and not for publication or redistribution.

Author's own views
This report is an outsider's view of the securities referred to in the report. It has been produced by the authors independent of any issuers mentioned in the report, and independent of other divisions of SB1 Markets. The authors of this report confirm that, notwithstanding potential conflicts of interest referred to herein, the views expressed in this report accurately reflect the author's personal views of the relevant issuers, and that no part of the authors' compensation is related to the views expressed in the report, the performance of their investment recommendations, investment banking assignments or other specific services performed by SB1 Markets. The analyst partakes in the general bonus scheme of SB1 Markets, and as such, may receive compensation that is generated by overall firm profitability.

No investment advice
The report does not provide tailored personal investment advice within the meaning of section 2-3 (4) of the Norwegian securities trading act. The report is intended for general circulation and does not take into account the specific investment objectives, financial situation or particular needs of any particular person. You should seek advice from a financial adviser regarding the suitability of any product mentioned in this report, taking into account your specific financial objectives, financial situation or particular needs before making a commitment to purchase any such product.

Research for the purposes of unbundling
This report constitutes research material for the purpose of the inducement rules under MiFID II.

Sources of information
This report is based on information obtained from public sources that SB1 Markets believes to be reliable but which SB1 Markets has not independently verified, and SB1 Markets makes no guarantee, representation or warranty as to the accuracy or completeness. This report does not, and does not attempt to, contain everything material which there is to be said about the Company. Any opinion expressed herein reflect SB1 Markets' judgement at the time the report was prepared and are subject to change without notice.

Limitation of liability
Any use of information contained in this report is at your individual risk. SB1 Markets assumes no liability for any losses caused by relying on the information contained in this report, including investment decision you may have taken on the basis of this report.

Risk warning
Return on investments in financial instruments is inherently exposed to risks. Past performance is not a reliable indicator of future performance, and estimates of future performance are based on assumptions that may not be realized. When investing in financial instruments, the value of the investment may increase or decrease and the investor may lose all or part of the investments.

This document contains certain forward-looking statements relating to the business, financial performance and results of the issuer and/or the industry in which it operates. Forward-looking statements concern future circumstances and results and other statements that are not historical facts, sometimes identified by the words "believes", "expects", "predicts", "intends", "projects", "plans", "estimates", "aims", "foresees", "anticipates", "targets", and similar expressions. The forward-looking statements contained in this document, including assumptions, opinions and views of the issuer or cited from third party sources are solely opinions and forecasts which are subject to risks, uncertainties and other factors that may cause actual events to differ materially from any anticipated development.

Conflicts of interest
SB1 Markets, affiliates and staff may perform services for, solicit business from, hold long or short positions in, or otherwise be interested in the investments (including derivatives) in any securities mentioned in this report. To mitigate possible conflicts of interest and counter the abuse of confidential information and insider knowledge, SB1 Markets has set up effective information barriers between divisions in possession of material, non-public information and other divisions of the firm. Our research team is well versed in the handling of confidential information and unpublished research material, contact with other departments of SB1 Markets, and restrictions on personal account dealing.

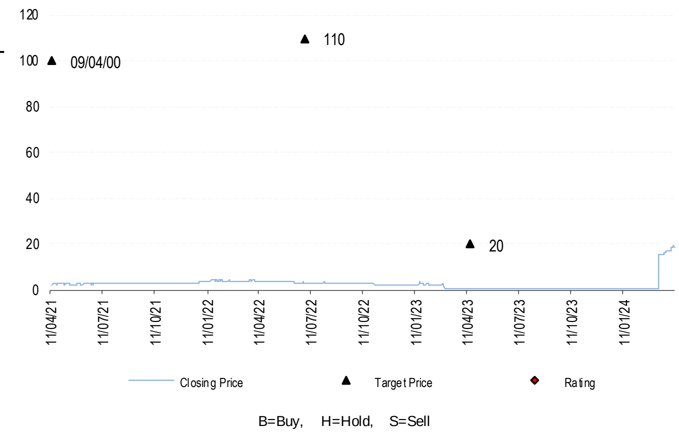
Important disclosures and certifications

Previous company reports

For an overview of previous recommendations regarding the financial instruments or issuer subject to this report, consult the chart below:

3-Year Price, Target Price and Rating Change History Chart for NOM NO

NOM NO Date	Closing Price	Target Price	Rating
16/03/2022	69.8	100	BUY
30/06/2022	64.4	110	BUY
17/04/2023	12.4	20	BUY
10/04/2024	18.6	24	BUY



Planned updates

SB1 Markets generally update company reports and recommendations following the publication of new figures or forecasts by the issuer, or upon the occurrence of other events that could potentially have a material effect.

Issuer disclosure

This report has not been submitted to the issuer for review.

Important disclosures and certifications

Investment services provided by SB1 Markets
SB1 Markets may have provided investment services and/or ancillary services to the issuers mentioned in this report and received compensation for it during the past 12 months. Please refer to our webpage for an overview of all investment banking assignments carried out in the last 12 months: www.sb1markets.no. Note that assignments subject to confidentiality are excluded.

Ownership of securities issued by the companies covered in this report
The authors of this report do not (alone or jointly with related persons) own securities issued by the companies mentioned in this report. SB1 Markets may have holdings in the issuers mentioned in this report as a result of own account trading, market making and/or underlying shares as a result of derivatives trading.
However, SB1 Markets does not own a net long or short position exceeding the threshold of 0,5% of the total issued share capital of the issuer, nor does SB1 Markets hold other interests likely to affect the objectivity of a recommendation.
For an overview of instruments where SB1 Markets and related companies are market makers or liquidity providers, please refer to our webpage: www.sb1markets.no. Information on SB1 Markets' holdings as a result of own account trading is available upon request.

Material interest held by the issuers in shares issued by SB1 Markets
The issuers mentioned in this report do not hold more than 5% of the total share capital of SB1 Markets or related persons.

Valuation method
Price targets are based on a combination of several valuation methods such as discounted cash flow, pricing based on earnings multiples, multiple on book value, net asset value and peer comparison. Substantial material sources for coverage of this company include historical financial figures and communication with the company, and relevant third party information. If you would like further information on the valuation, methodology or underlying assumptions used in this note, please contact the analyst (contact details on front page of the report).

Recommendation categories
Our equity recommendations are based on a six-month horizon, and on absolute performance. We operate with three recommendation categories where Buy indicates an expected annualized return of greater than +10%; Neutral, from 0% to +10%; Sell, less than 0%.

Recommendation distribution
Find below an overview of SB1 Markets' recommendation distribution as of the date of this report:

Current Recommendation of the Research Department		
Recommendation	Percentage of companies under coverage with this recommendation	Percentage of companies under coverage for which SB1 Markets has provided investment banking services in the past 12 months
Buy	58.1%	21.2%
Neutral	31.3%	9.0%
Sell	10.6%	6.7%
Total	100%	

Important disclosures and certifications

NOTICE TO U.S. INVESTORS

If this report is being furnished directly to U.S. recipients by a non-U.S. SpareBank 1 Markets entity in reliance on section (a)(2) of Rule 15a-6 under the U.S. Securities Exchange Act of 1934, as amended (each a "direct U.S. recipient"), each such direct U.S. recipient of this report represents and agrees, by virtue of its acceptance thereof, that it is "major U.S. institutional investor" (as such term is defined in section (b)(4) of Rule 15a-6) and that it understands the risks involved in executing transactions in such securities. Any direct U.S. recipient of this report that wishes to discuss or receive additional information regarding any security or issuer mentioned herein, or engage in any transaction to purchase or sell or solicit or offer the purchase or sale of such securities, should contact a registered representative of SpareBank 1 Capital Markets Inc. ("SpareBank 1 Capital Markets"), a registered U.S. broker-dealer and member of FINRA and SIPC.

In certain cases, unless prohibited by the provisions of Regulations under the U.S. Securities Act of 1933, as amended, this report may be provided by SpareBank 1 Capital Markets to a U.S. recipient (a "SpareBank 1 Capital Markets U.S. recipient"), in which case each such SpareBank 1 Capital Markets U.S. recipient of this report represents and agrees, by virtue of its acceptance thereof, that it is "major U.S. institutional investor" (as such term is defined in section (b)(4) of Rule 15a-6), or that it is a U.S. institutional investor (as such term is defined in section (b)(7) of Rule 15a-6), and that it understands the risks involved in executing transactions in such securities. In such cases, SpareBank 1 Capital Markets accepts responsibility for the content of this report; however, although it has accepted responsibility for the content of this report in such cases, SpareBank 1 Capital Markets did not contribute to the preparation of this report, and the specific authors of the report are not employed by, and are not associated persons of, SpareBank 1 Capital Markets. The SpareBank 1 Markets entity that prepared the report, and the authors of this report, may not be subject to all of the registration, qualification, disclosure, independence and other U.S. regulatory requirements that apply to SpareBank 1 Capital Markets and its employees and associated persons. Any SpareBank 1 Capital Markets U.S. recipient of this report that wishes to discuss or receive additional information regarding any security or issuer mentioned herein, or to engage in any transaction to purchase or sell or solicit or offer the purchase or sale of such securities, should contact a registered representative of SpareBank 1 Capital Markets.

Any transaction in the securities discussed in this report by U.S. persons (other than a registered U.S. broker-dealer or bank acting in a broker-dealer capacity) must be effected with or through SpareBank 1 Capital Markets.

The securities referred to in this report may not be registered under the U.S. Securities Act of 1933, as amended, and the issuer of such securities may not be subject to U.S. reporting and/or other requirements. Available information regarding the issuers of such securities may be limited, and such issuers may not be subject to the same auditing and reporting standards as U.S. issuers.

Such information is provided for informational purposes only and does not constitute a solicitation to buy or an offer to sell any securities under the Securities Act of 1933, as amended, or under any other U.S. federal or state securities laws, rules or regulations. The investment opportunities discussed in this report may be unsuitable for certain investors depending on their specific investment objectives, risk tolerance and financial position. In jurisdictions where SpareBank 1 Capital Markets is not registered or licensed to trade in securities, commodities or other financial products, transactions may be executed only in accordance with applicable law and legislation, which may vary in jurisdiction and which may require that a transaction be made in accordance with applicable exemptions from registration or licensing requirements.

The information in this publication is based on carefully selected sources believed to be reliable, but SpareBank 1 Capital Markets does not make any representation with respect to its completeness or accuracy. All opinions expressed herein reflect the author's judgment at the original time of publication, without regard to the date on which you may receive such information, and are subject to change without further notice.

The information contained herein may include forward-looking statements as described above within the meaning of U.S. federal securities laws that are subject to risks and uncertainties. Factors that could cause a company's actual results and financial condition to differ from expectations include, without limitation: political uncertainty, changes in general economic conditions that adversely affect the level of demand for the company's products or services, changes in foreign exchange markets, changes in international and domestic financial markets and in the competitive environment, and other factors relating to the foregoing. All forward-looking statements contained in this report are qualified in their entirety by this cautionary statement.