

GREEN MINERALS

Enabling the green shift

Q4 2022 presentation – 17 February 2023

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Presenters



Ståle Rodahl
Executive Chairman



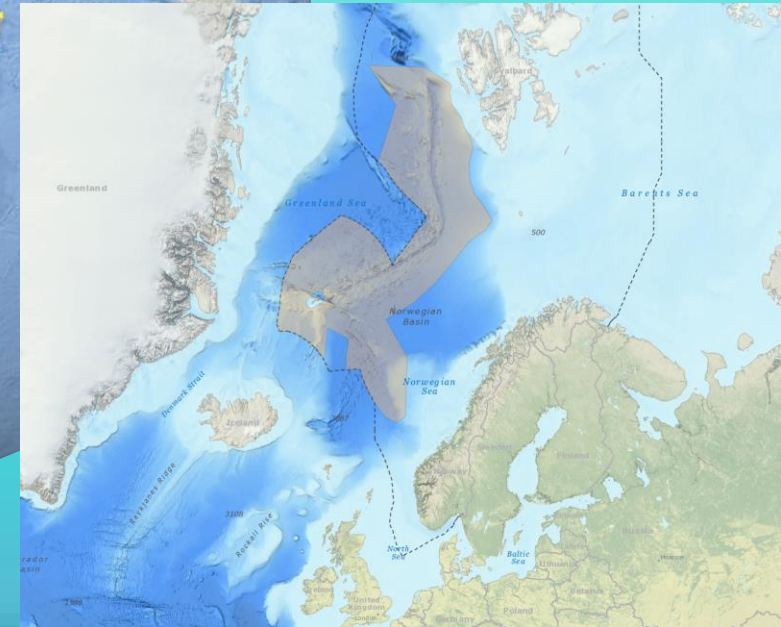
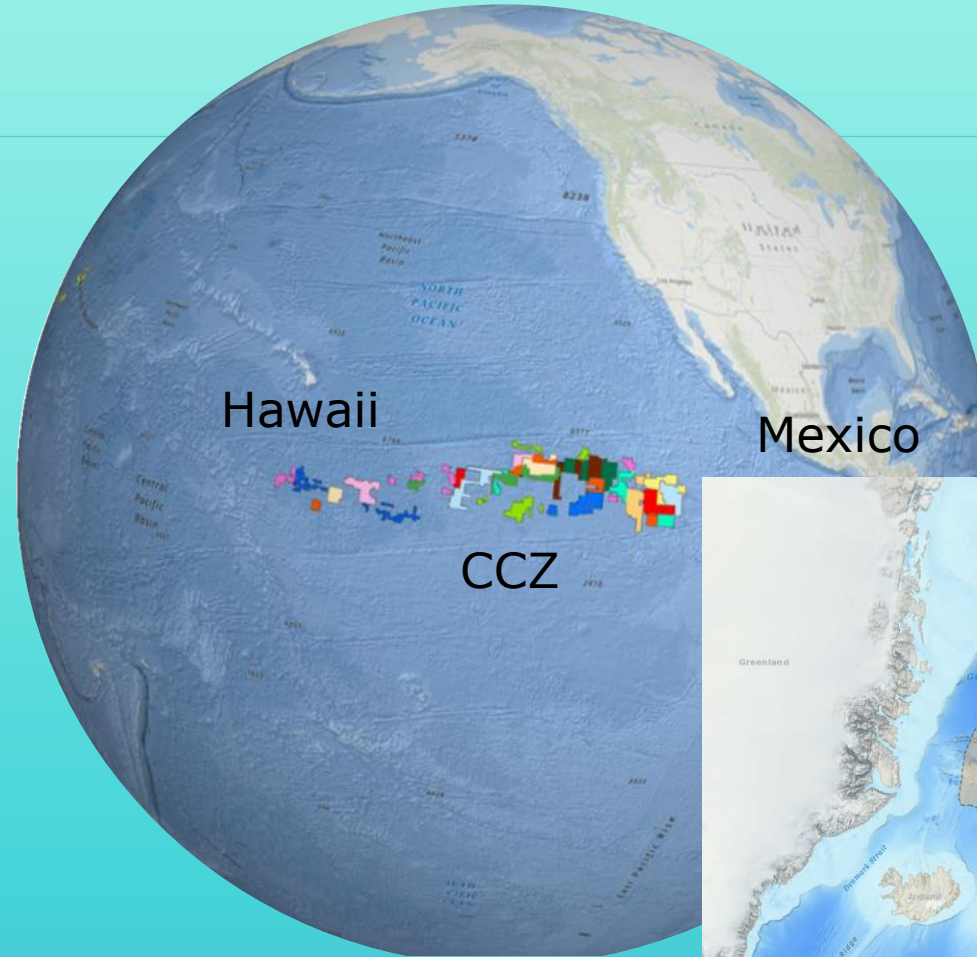
Ståle Monstad
CEO



Sveinung Alvestad
CFO

Outline

- **Q4 Highlights**
- **2022 Milestones**
- **Key objectives 2023**
- **Subsequent events**
- **Polymetallic Nodules**
- **Strategic priorities**
- **Operations and financials**



Q4 highlights

Highlights for Q4 2022

- OSI led consortium started working on Concept study for “Harsh environment Deep-Sea mining system”.
- Signed frame agreement with an international battery manufacturer.

Subsequent events

- Signed an MoU with a license holder in Clarion Clipperton Zone.
- Public Hearing on the environmental impact assessment concluded in Norway.
- NPD published its resource assessment for Norway

Norwegian Petroleum Directorate:

Havbunnsmineraler: Store ressurser på norsk sokkel



Direktør for teknologi, analyse og sameksistens (TAS) Kjersti Dahle viser en sulfidprøve, hentet opp fra ODs tokt på Mohnsryggen i Norskehavet i 2020. Foto: Arne Bjørøen/OD.

Financial highlights

Q4 2022

- Q4 revenue of NOK 0.3 million, first revenue ever recorded
- Q4 expenses was NOK 4.3 million, broadly in line with prior year quarter.
 - By adjusting for non-cash impact of the company's incentive scheme the cost was NOK 2.9 million (Q4/21: NOK 3.9 million)
- The company is debt free and the cash balance was NOK 21.3 million as of end of Q4 2022

Full year 2022

- 2022 operating expenses were NOK 11.5 million, up from NOK 10.7 million in 2021.
- The underlying cost, after adjusting for non-cash reversal on the company's incentive scheme, was NOK 10.1 million (2021: NOK 9.9 million).
 - This is expected to be representative on an annual basis going forward.
- Equity ratio was 96%

Key figures				
All figures in NIOK '000 (except equity ratio)	Q4 2022 (Unaudited)	Q4 2021 (Unaudited)	2022 (Unaudited)	2021 (Audited)
Revenues	258	-	258	-
Operating expenses	-4,276	-4,576	-11,526	-10,651
EBITDA	-4,018	-4,576	-11,268	-10,651
EBIT	-4,018	-4,576	-11,268	-10,651
Profit/(loss)	-4,016	-4,563	-11,260	-10,645
Cash flow operating activities	-2,359	-2,455	-8,883	-8,848
Total assets	21,491	19,718	21,491	19,718
Cash and cash Equivalents	21,252	19,067	21,252	19,067
Equity ratio	96%	97%	96%	97%

Expected key milestones during 2022

1. RESEARCH CRUISE



- Research cruise on the Mid-Atlantic ridge with ProjectULTRA (NOC*)
- Scope of the project was amongst others drilling of several extinct SMS, testing new method such as seismic while drilling, and sediment samples to support future exploration strategies.
- Preliminary results from the cored material show high copper and unexpectedly high nickel content.

2. METALLURGY ANALYSIS



- GEM has carried out a metallurgy analysis on SMS samples from the mid-Atlantic ridge
- Report deepens our knowledge of the mineralogical composition and the commerciality of the resource
-

3. RELEASE OF NPD DATA



- NPD has carried out research cruises on the Mohns Ridge and the Knipovich Ridge every year since 2018
- Large amounts of data from these research activities were released by the NPD early June 2022
- The data are now incorporated in Green Minerals database and we have started to integrate the data in our workflow and exploration framework.

4. ALLIANCES & PARTNERSHIPS

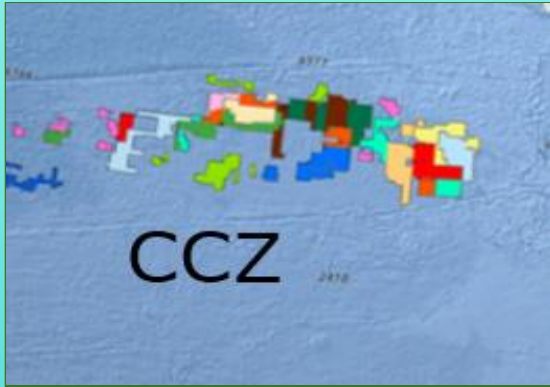


- Continue expanding our partnership model throughout the value-chain
- Actively working towards strategic partnerships, both in Norway and internationally
- Continuous process

*) NOC - National Oceanographic Centre, marine research centre located in Southampton UK, one of the globally recognised reference institutes on marine minerals <https://noc.ac.uk/>

Key Objectives for 2023

1. LICENSE WIN



- GEM's ambition is to secure a license in 2023.
- MoU for large license signed.
- Several international opportunities are currently being evaluated.

2. RESEARCH CRUISE



- The next research cruise to the Mid Atlantic Ridge is planned for late 2023.
- The research cruise is led by the National Oceanographic Centre* in UK.
- GEM has 2 Ph.D. students on the project.

3. PROCESSING STUDY



- GEM has secured more SMS material to continue the analyses.
- The second (and last) phase of this R&D activity will focus on processing methods for SMS material.
- Aim is to demonstrate blend-ability with onshore copper ore.

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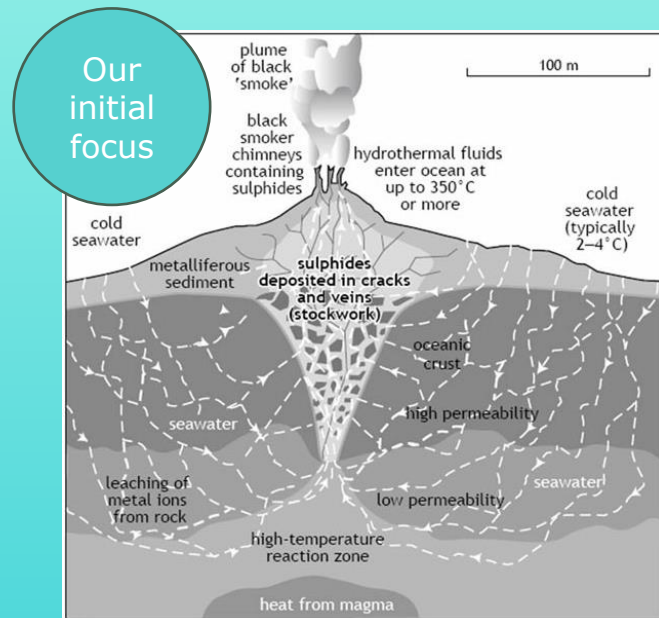
MoU signed

- **Green Minerals signs MoU for partnership in a nodule license in CCZ in January 2023.**
- **Competent license holder.**
- **Significant amount of work done on the license to date, indicating**
 - **A significant resource of key battery metals on global scale.**
 - **>100 yrs. production at same rate as NCS SMS**
- **Exclusivity for Green Minerals during the negotiation period.**



Three main types of marine minerals occurrences

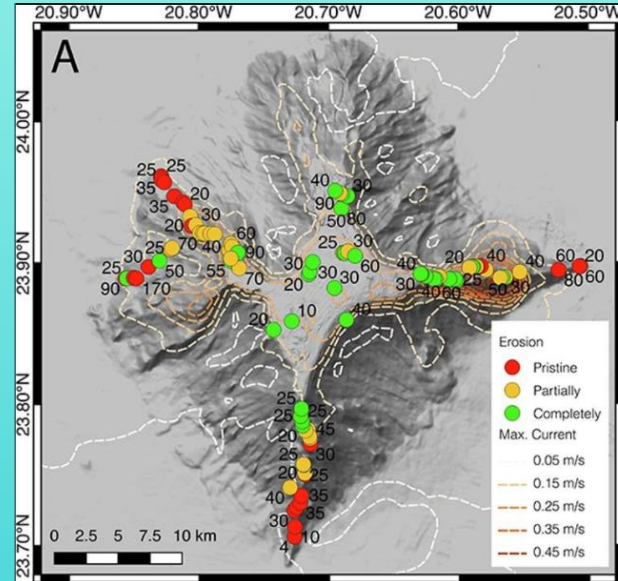
Seafloor massive sulphides (SMS)



- Impacted area is very small (diameter in the 100's m range.)
- Production from SMS's will be performed through 'surgical interventions'.
- Non-unique ecosystems around inactive vents
- Probably relative low environmental impact.

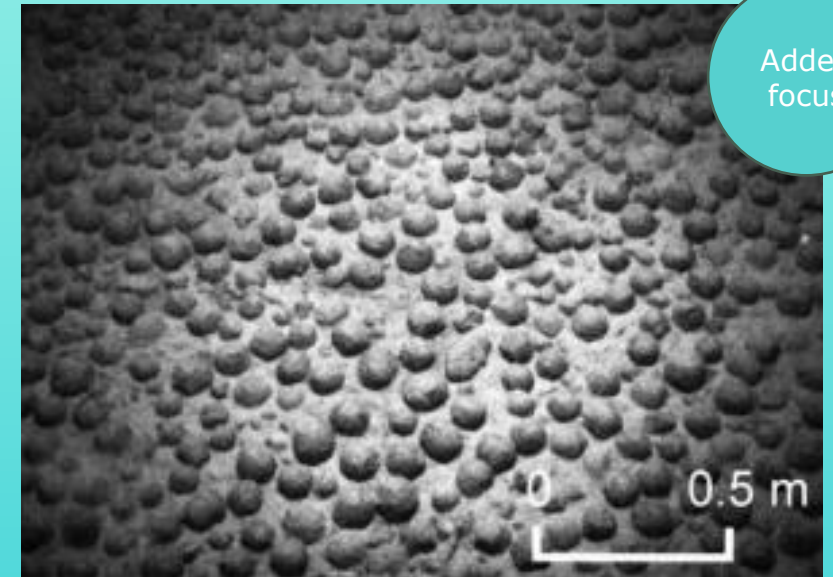
Closed loop production system reduce/remove sediment plume during extraction for all deposits.

Manganese crust



- Intermediate areas (50-100km²)
- Steep slopes most likely favourable for development of crust on NCS.

Polymetallic nodules



- Large areas (>250k km²)
- "Easy" exploration.
- The nodules can be harvested.

Polymetallic nodules. “Battery in a rock”

- Polymetallic nodules, contain four essential battery metals: cobalt, nickel, copper, and manganese, in a single ore.
- Unlike land ores, nodules do not contain toxic levels of heavy elements.
- Licenses in the CCZ are large, often between 70 000 and 80 000 km².
- The license Green Minerals are negotiating has completed the geological exploration work.
 - Resource assessment
- Some remaining work on the environmental baseline.
- The license will be close to ready for harvesting once the Mining Code (ISA legislation) is complete.

1,2%

29 63,55
Cu
Copper

27 58,93
Co
Cobalt

0,20%

31,1%

25 54,94
Mn
Manganese

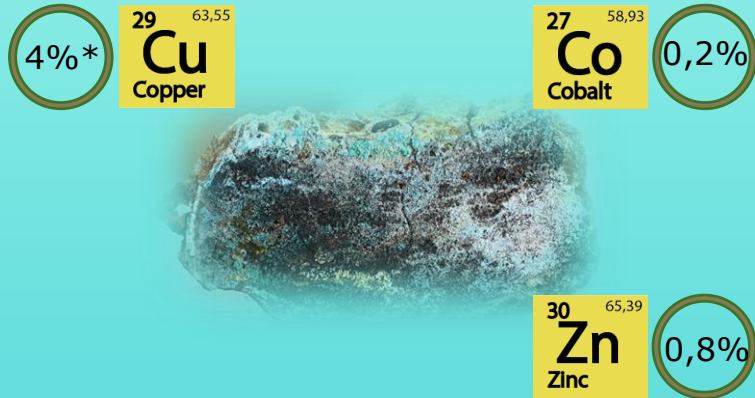
28 58,69
Ni
Nickel

1,31%



SMS vs Nodules

SMS



Polymetallic nodules



VS






- SMS is mainly a copper play, but some deposits also show very interesting Cobalt ore grades.
- Seafloor Massive Sulphides are 3D deposits, that cover small areas and mining is needed to produce the resource.
- Nodules are a 2D deposit, sitting unattached on the seafloor. Produced through harvesting.
- Nodules are rich in typical battery metals like Ni, Mn, and Co. Also rich in Fe.

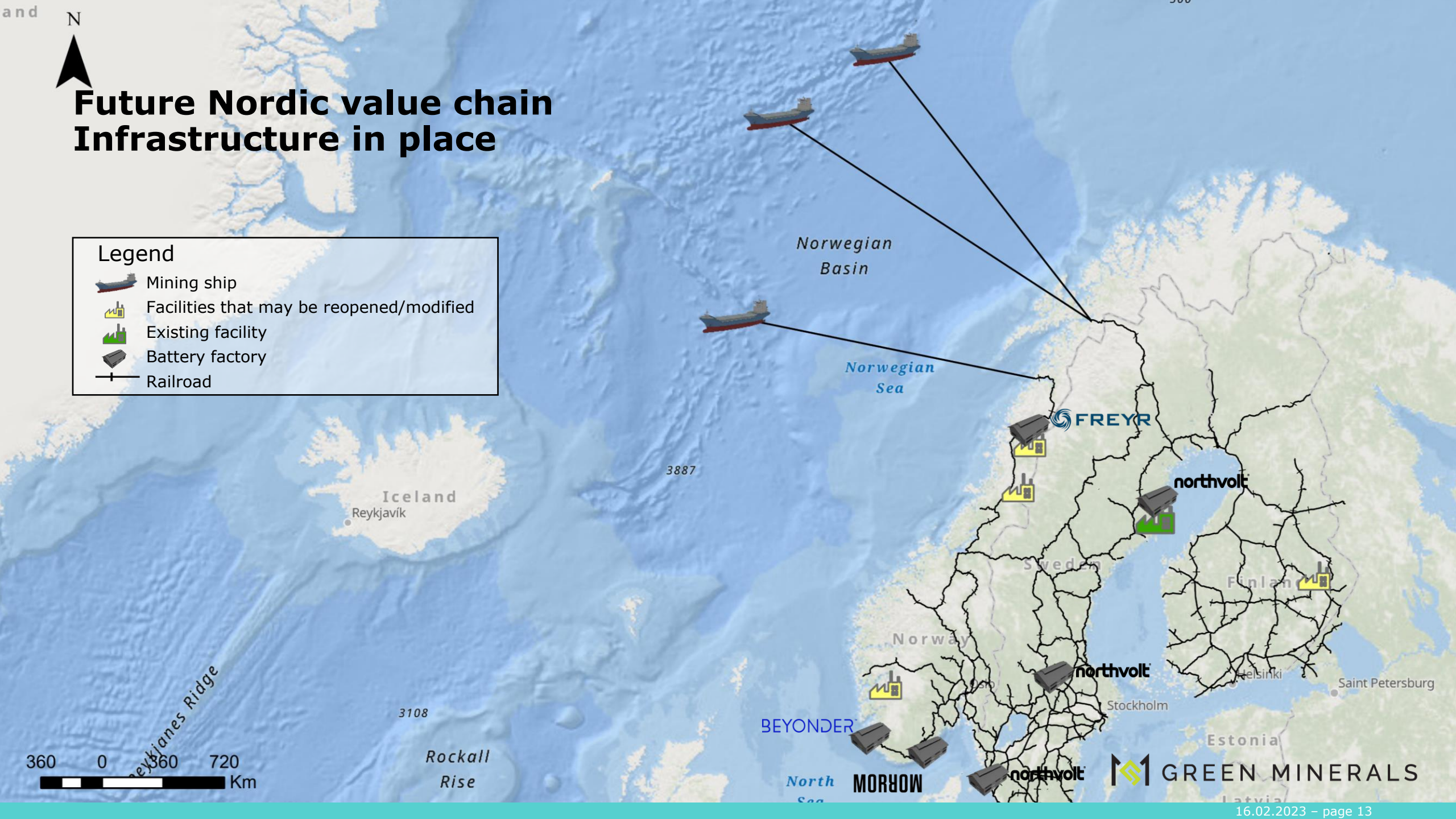
* Numbers illustrates typical values for the different commodities



Future Nordic value chain Infrastructure in place

Legend

-  Mining ship
-  Facilities that may be reopened/modified
-  Existing facility
-  Battery factory
-  Railroad



NPD Resource report

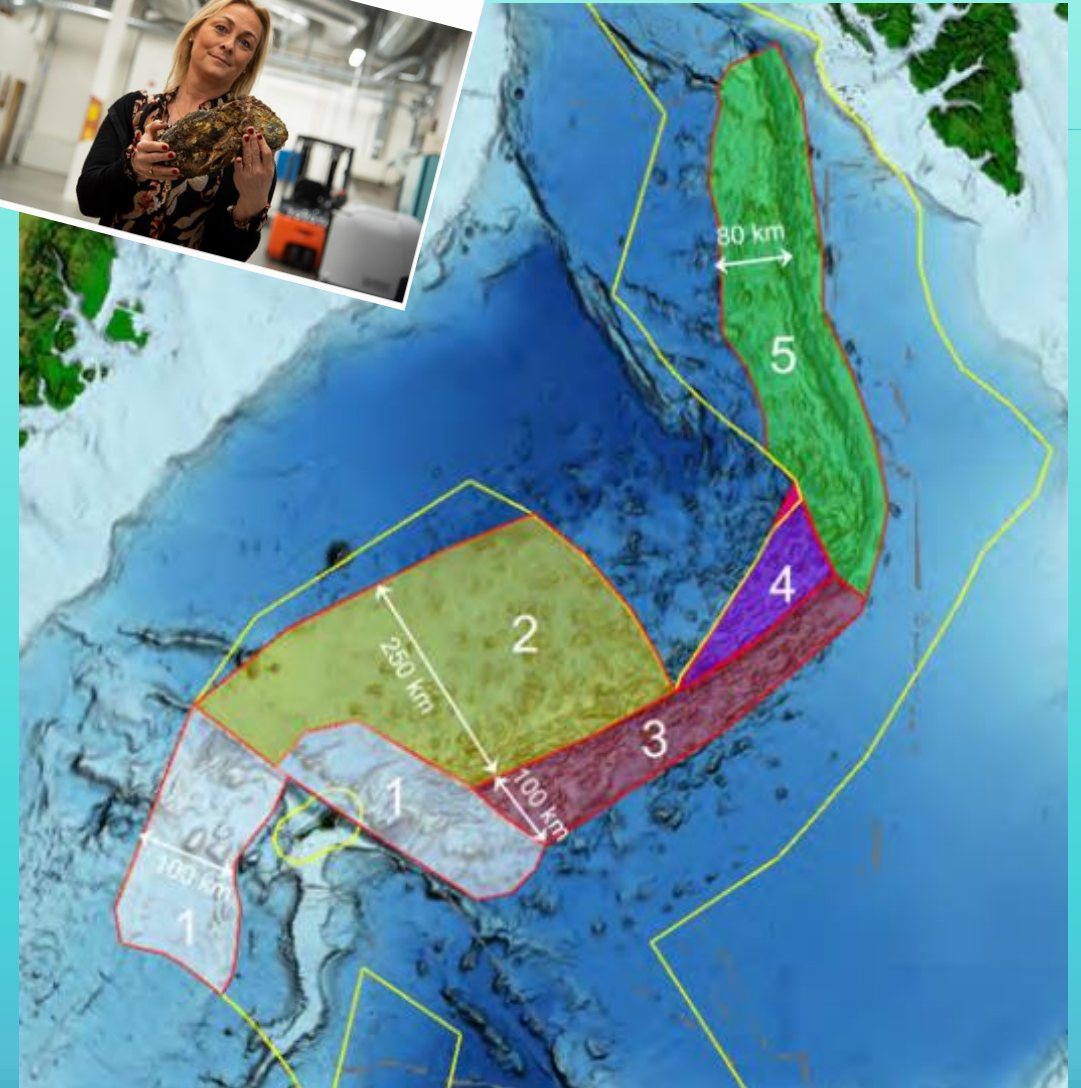
In-situ metals sulfides

Metal	NPD (Tons)	Global annual production (Tons)	NPD/Global prod.
Copper	38 100 000	21 000 000*	1.8x
Gold	2 317	3 090**	0.8x
Silver	85 200	24 000*	3.6x
Cobalt	1 000 000	170 000*	5.9x

*All the metals we mined in 2021: Visualized - MINING.COM

**Global gold production from mines 2022 | Statista

Seabed minerals: Substantial resources on the Norwegian shelf



Partnership for responsible production



Major global drilling contractor



Subsea equipment



Global pump supplier



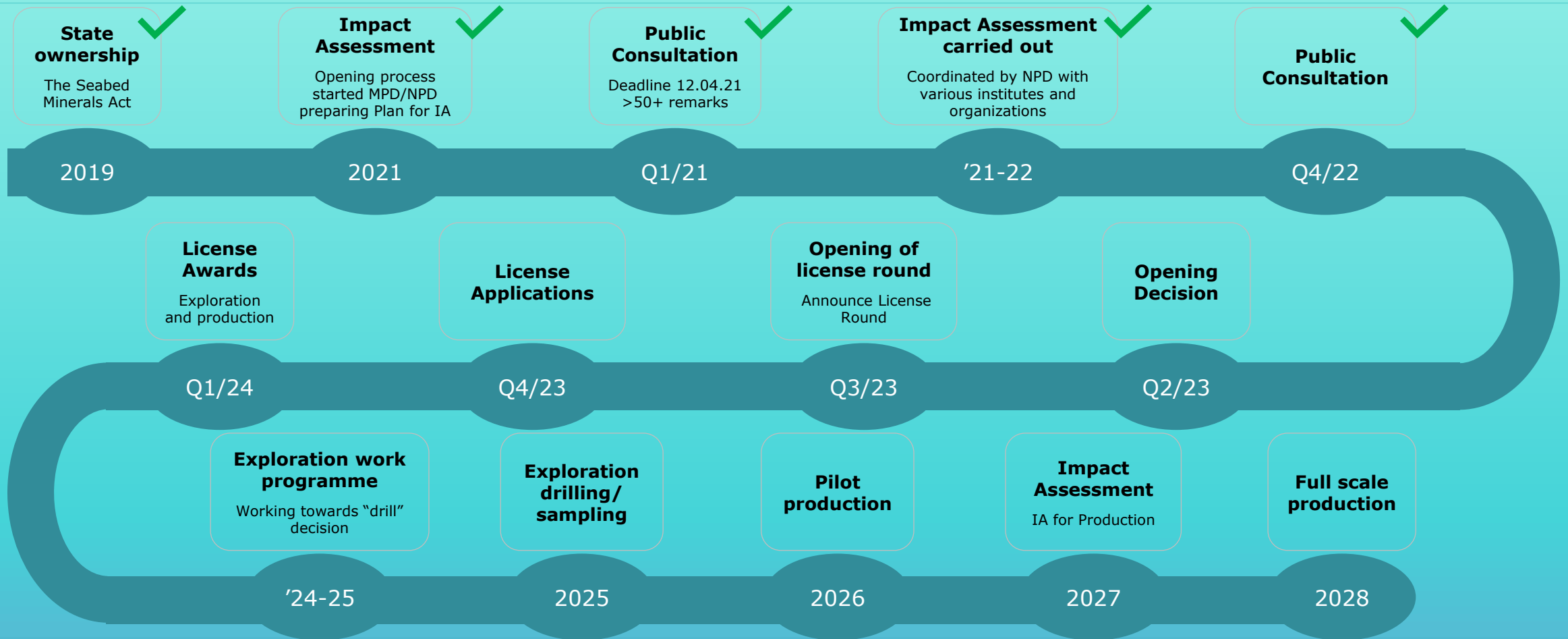
Horizontal transportation



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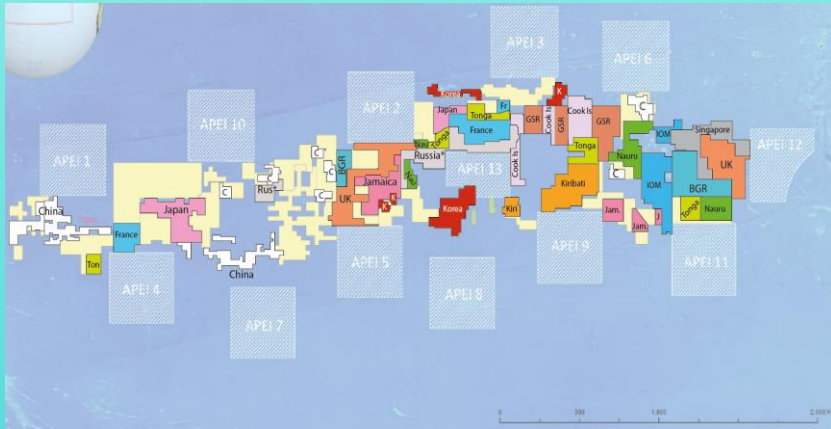
- Work commenced for delivery of a concept study on Harsh Environment Deep-Sea Mining System “ore from seafloor to port” for exclusive use in Norwegian waters.
- OSI has delivered risers for Allseas/TMC (Nodules) and Japanese consortium (SMS) and was part of integration works
- SMD delivered mining machines for previous SMS mining project
- OSI becomes shareholder in Green Minerals

Roadmap towards exploration license in '24 and production in '28



Aspirational targets – operations and financials

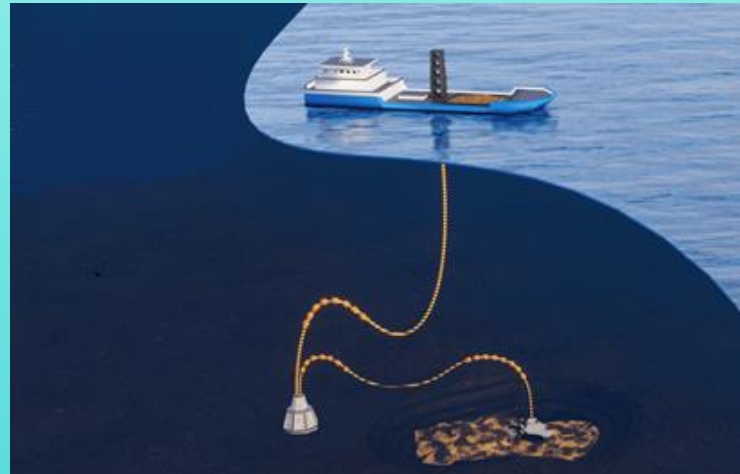
CCZ



- Geological exploration work completed
- More than 200Mt wet nodules indicated on license
- Asset light strategy, minimize CAPEX, include industrial partners.
- Annual EBITDA (est) > USD 150m on current metals prices

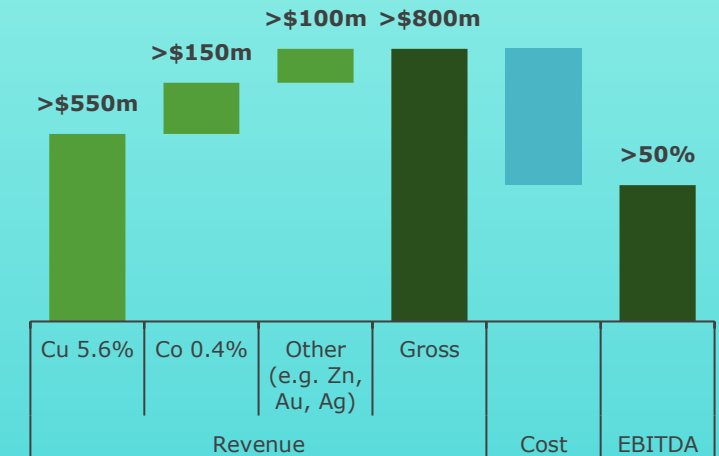
Target: Production start in 2026

NCS



- We plan for a pilot system ready to operate by 2026
- Processing to be performed in the Nordics
- Immense focus on subsea ecosystem and biodiversity
- **Target: Production in 2028 with processing capability in one of the Nordic countries**

FINANCIAL TARGETS - NCS



- Revenue:
 - 1.5 Mt annual ore production
 - USD 9,000 per ton copper (Cu)
 - USD 50,000 per ton cobalt (Co)
 - ~USD 100m uplift for additional metals
- EBITDA:
 - Includes overhead, mining cost and processing cost

Recent industry developments

License award in Cook Islands provides perspective on industry values:

- -3 licenses awarded to Moana Minerals Ltd (OMLUS), CIC Ltd (Oddesey) and CIIC Seabed Resorces Ltd (Deme Gp)
- OMLUS (Moana Minerals Ltd) win triggered Transocean minority stake (press release 29th March 2022) at estimated 10 MUSD + 10 MUSD in-kind

CCZ

- The Metals Company successfully completed an integrated pilot system test in the CCZ in October 2022, lifting 3000 wet tonnes of nodules through a 4,3km riser system
- Transocean recently announced that they have taken a minority stake in GSR and their license in the CCZ.

	OMLUS	TMC	GEM
Market cap (USDm)	NA	229	7
Production start (est)	2026	2024	2026/2028
Production in tpa (est)	und.	1.3M	1.5M
Resource status CCZ* (mt)			(>200Mt *)
measured	NA	4	NA
indicated	NA	341	NA
inferred	33	11	NA
Area of operation	Cook Islands	CCZ	CCZ/Norway

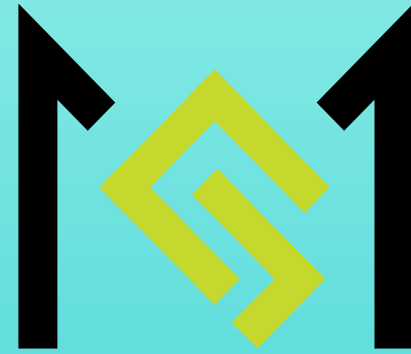
* Conditioned on conversion of the MoU into contract



Green Minerals summary

- **A pioneer and frontrunner in marine minerals in Norway**
- **Green Minerals signs MoU on large nodule license in CCZ, approaching license holder status earlier than previously guided.**
- **Opening decision in Norway 4-7 months expected, public consultation completed in January.**
- **USA and the EU declare > 30 minerals critical to national security**
- **Large Oil&Gas contractors starting to position in DSM industry, shedding light on industry values**





GREEN MINERALS

Enabling the green shift

Q&A