

GREEN MINERALS

Enabling the green shift

Q3 2022 Presentation – 28 October 2022

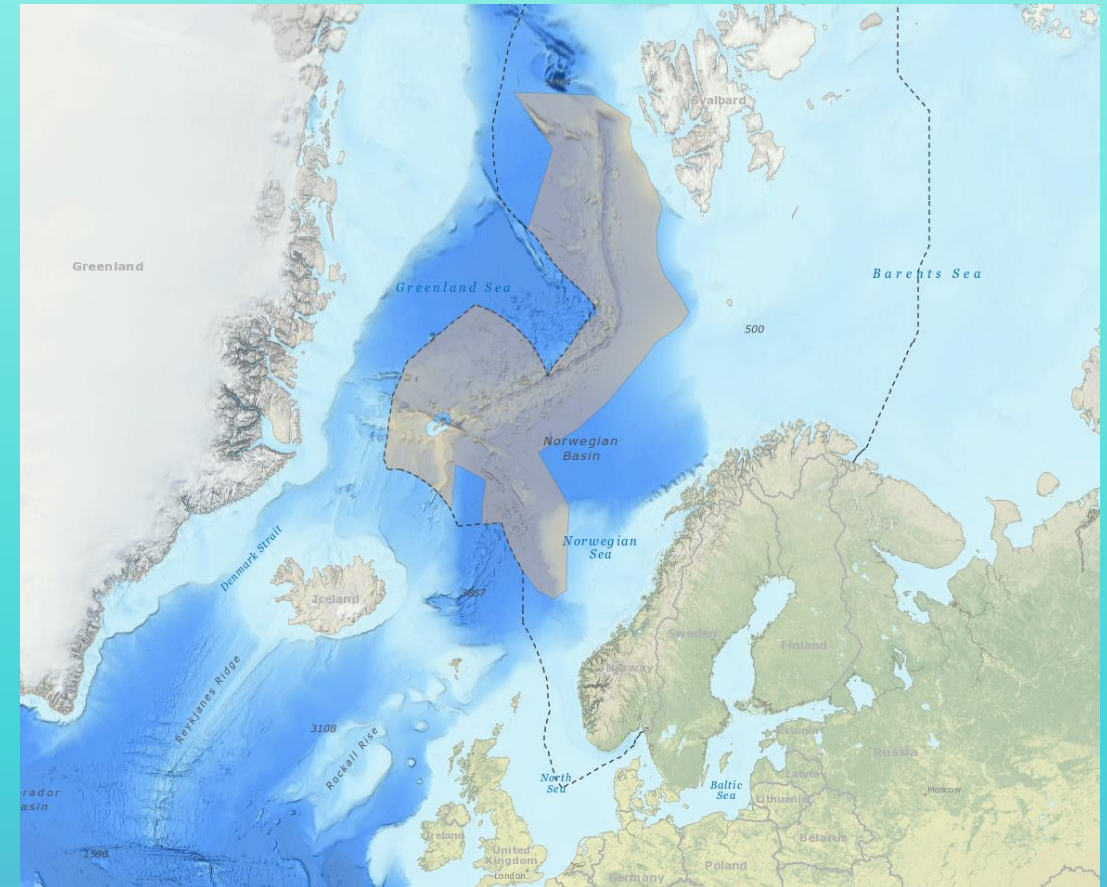
Ståle Monstad, CEO

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Outline

- **Building a new industry for Norway**
- **Q3 highlights**
- **2022 Milestones updates**
- **Strategic priorities**
- **Operations and financials**



A new Industry for Norway- from exploration to batteries

Our vision is to create a marine minerals value chain through partners and affiliations, where GEM explores and operates the licenses



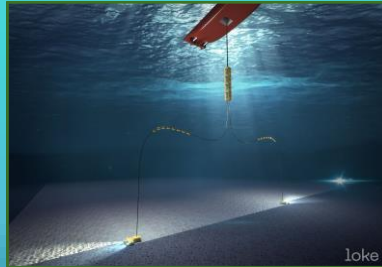
Exploration



Research



Production



Transport



Processing



Battery










Future Nordic value chain

- Several battery Giga factories under construction
- Short transportation
- Onshore mining increased focus
- Norwegian government Mineral strategy
- Existing infrastructure
- VMS processed in Sweden
- Cheap and emission free energy in Northern Norway
- Proximity to the metal market in EU

Legend

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

3887

Iceland

Reykjavík

3108

360 180 0 360 720 1,080 1,440

Rockall

Rise

Norwegian
BasinNorwegian
Sea

Norway

Oslo

Sweden


Stockholm

Finland

Helsinki

Saint Petersburg

Estonia

 **GREEN MINERALS**

Main development

Highlights for Q3 2022

- Successfully completed a private placement where we issued 1,160,000 new shares raising a gross amount of NOK 11.6 million
- Report completed on the characterization study on Seafloor Massive Sulphides material from the Atlantic.
- Impact assessment completed and handed over to OED by the Petroleum Directorate.

Key financials

- Q3 2022 operating expenses were NOK 0.6 million, down from NOK 2.5 million the prior quarter. Q3 was positively impacted by a NOK 1.9 million non-cash reversal on the company's incentive scheme
- Underlying expenses of NOK 2.5 million is representative on an annualised basis for 2022 and 2023
- The company is debt free, and the cash balance was NOK 23.6 million as of end of Q3 2022

Key financials for Q3 2022

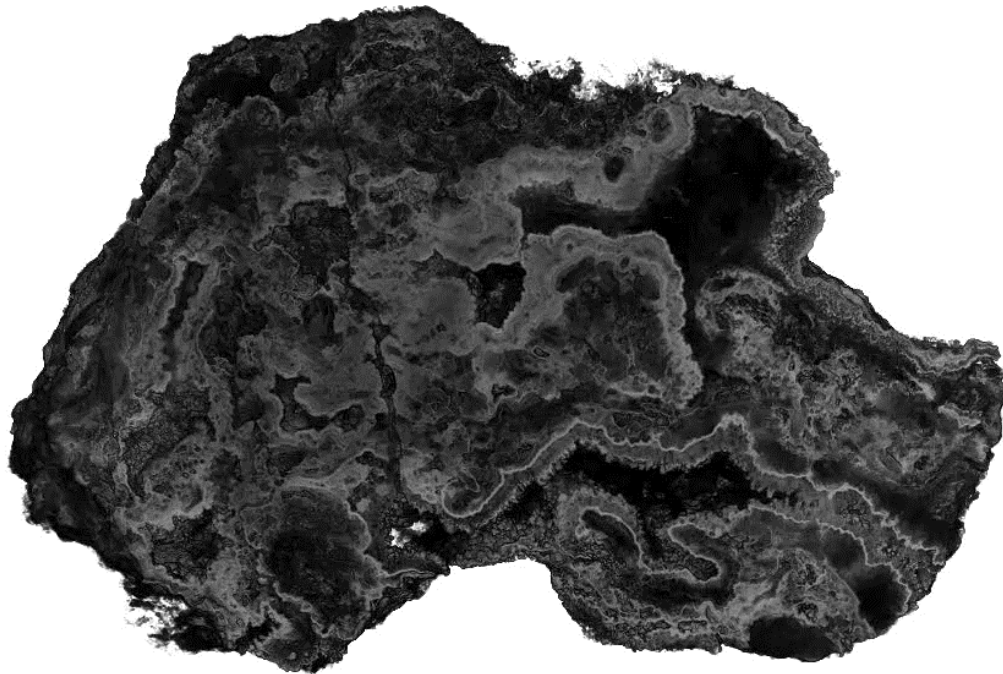
Income statement (NOK '000)	Q3 2022	Q2 2022	Q3 2021	2021
Revenue	-	-	-	-
Operational expenses	-585	-2 523	-2 356	-10 651
EBITDA	-585	-2 523	-2 356	-10 651
Depreciation and amortization	-	-	-	-
EBIT	-585	-2 523	-2 356	-10 651
Net financials	1	4	-3	6
Income tax	-	-	-	-
Profit/(loss)	-584	-2 519	-2 359	-10 645

Balance sheet (NOK '000)	Q3 2022	Q2 2022	Q3 2021	2021
Non current assets	-	-	1 154	-
Other current assets	699	1 718	787	651
Cash and cash equivalents	23 610	14 152	21 522	19 067
Current assets	24 309	15 870	22 309	19 718
Total Assets	24 309	15 870	23 463	19 718
Equity	22 957	14 381	22 019	19 073
Non current liabilities	-	-	-	-
Current liabilities	1 352	1 489	1 444	645
Total equity and liabilities	24 309	15 870	23 463	19 718

Mineral charecterization

XCT - 3D texture

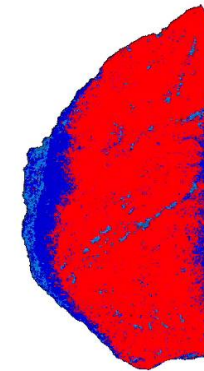
Sample 1: Chimney



Sample 2: SMS

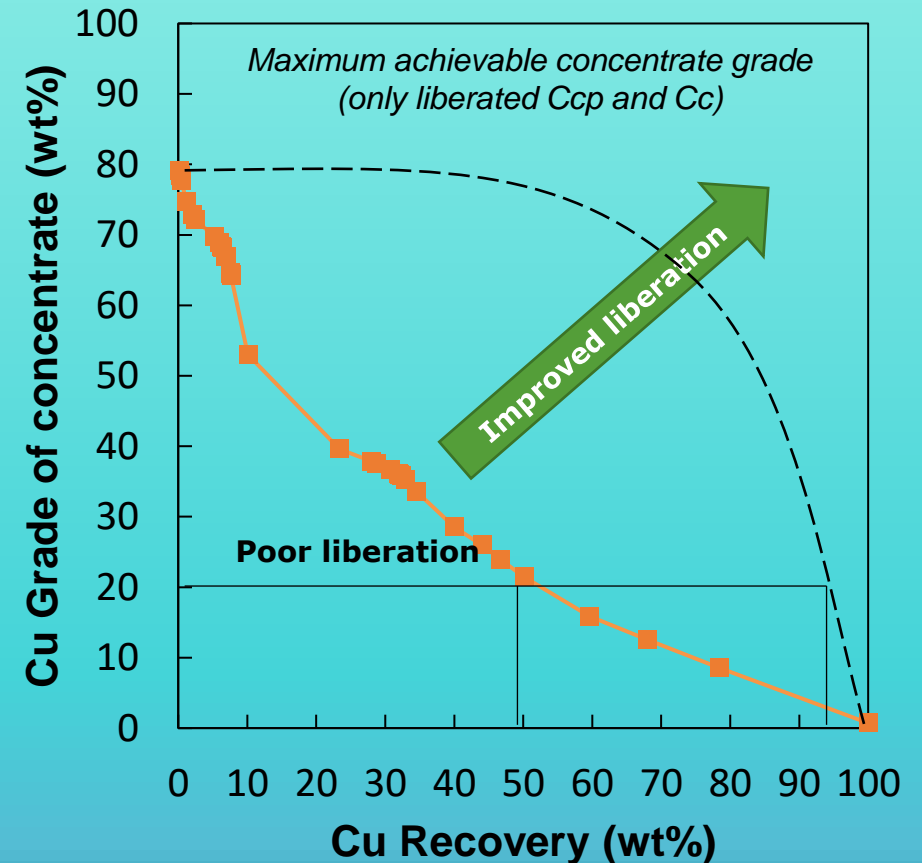
Volume estimated:

- ~3% Porosity
- ~6 % Weathered,
- 91% Sulphides



Theoretical Grade-Recovery Curve (TGR)

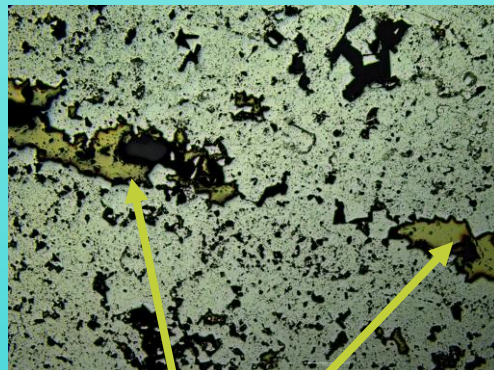
- TGR are used to assist and optimise mineral processing operations
- It sets the limits in terms of the best possible grade that can be achieved for a given recovery according to the mineralogical characteristics of a feed ore
- Here considering chalcopyrite and chalcocite as target minerals
- The target minerals being poorly liberated, the achievable concentrate grade are relatively low
 - 20 % Cu concentrate → ~50% recovery
 - Improved liberation → >90% recovery
- This will be improved by further liberating target minerals during the mineral processing study



Can SMS ore from the Mid Ocean Ridge be processed in existing plants?

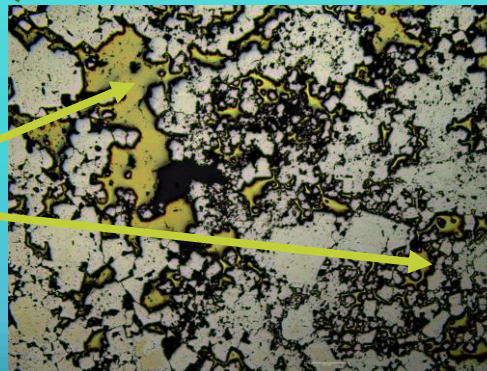


Ongoing study on SMS sample from the TAG area



Chalcopyrite
(copper mineral)

Aim is to demonstrate that SMS ore can be processed in existing plants in the Nordics



Joma Gruver, Røyrvik, Norway

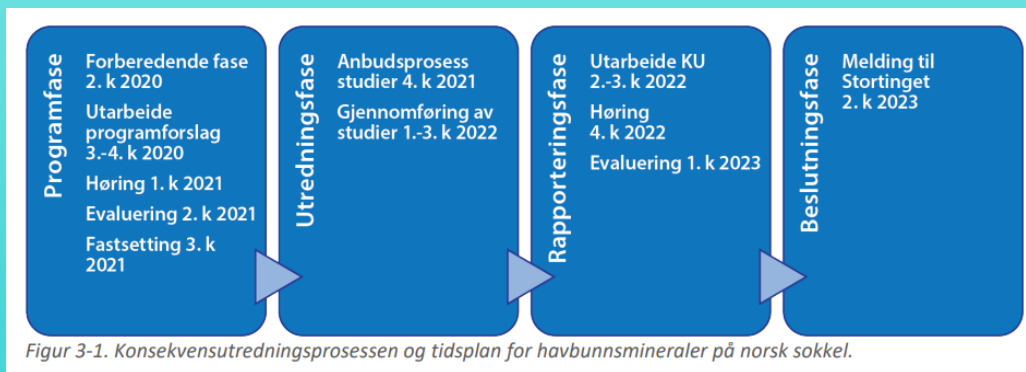
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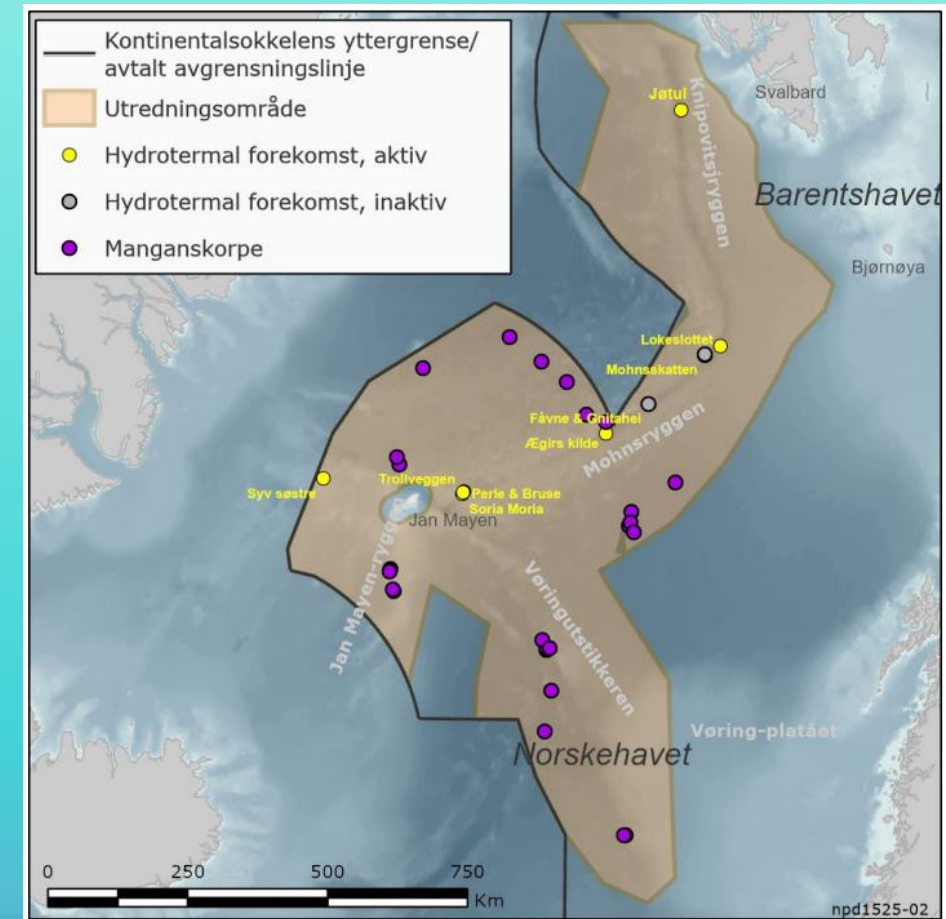
Boliden Skellefteå, Sweden

Public Consultation

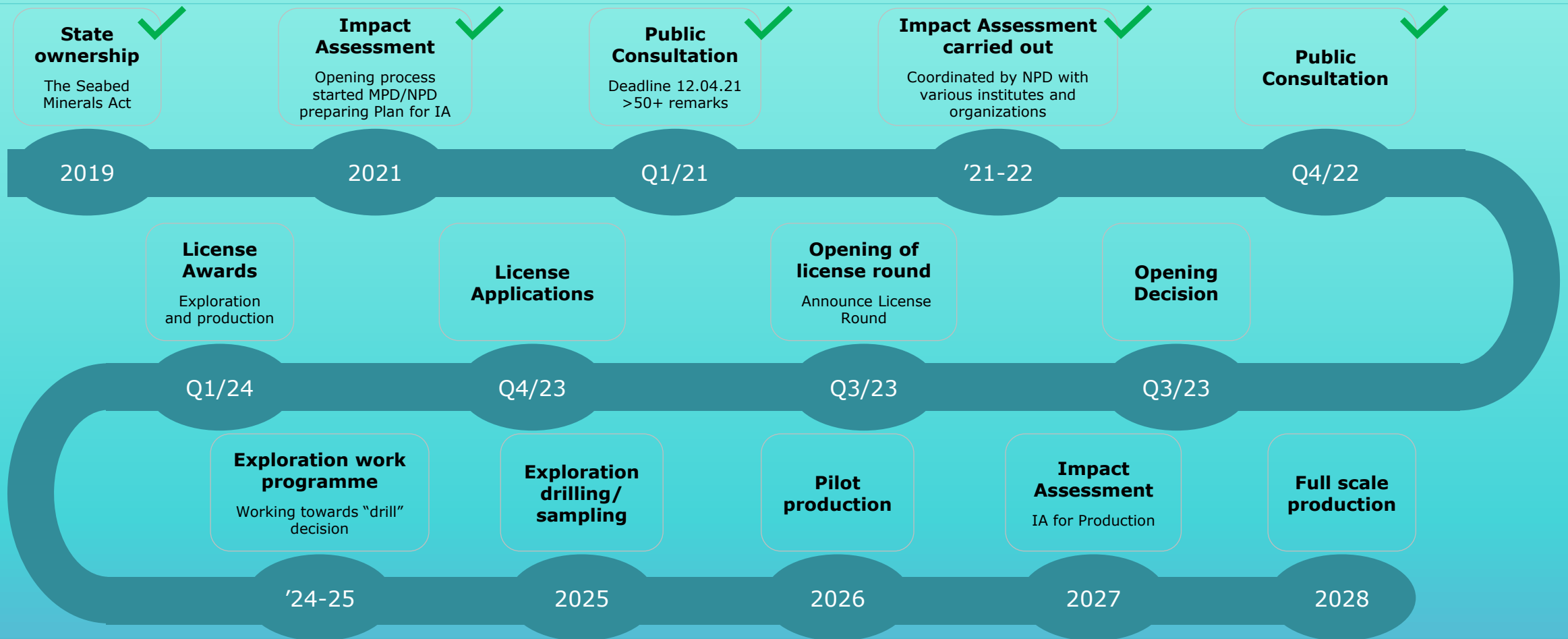
- The Norwegian Oil & Energy Department (OED) send the Environmental Impact Assessment for Deep Sea Mining out on public consultation on October 27th.
- The duration of the public consultation period is 3 months, and it ends on January 27th 2023.



- Faximile from the impact assessment document, illustrating that the process is on track.



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



Expected key milestones during 2022

1. RESEARCH CRUISE



- Research cruise on the Mid-Atlantic ridge with ProjectULTRA (NOC*)
- Scope of the project is 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



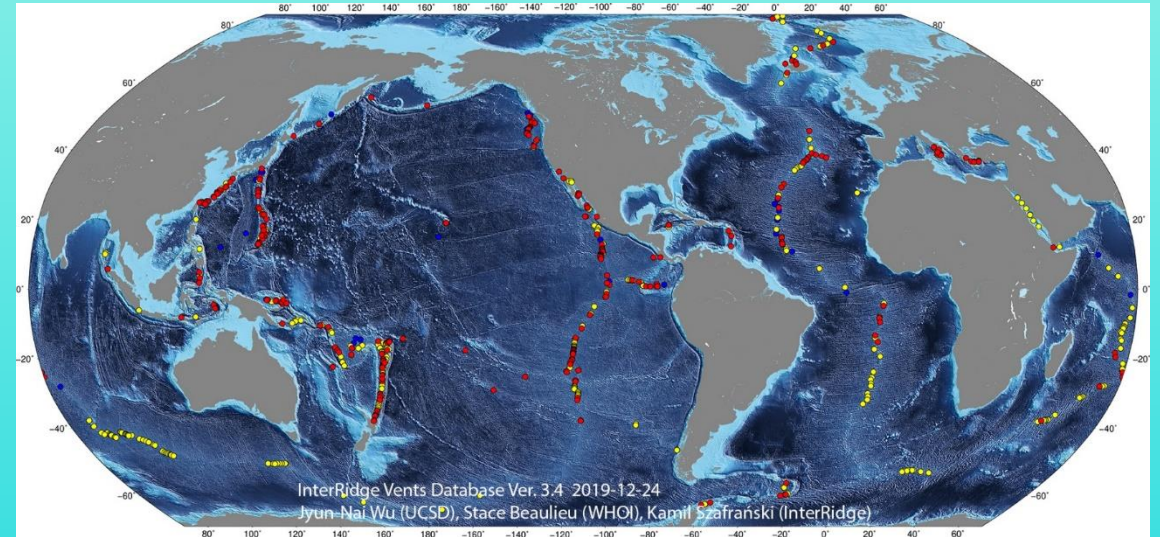
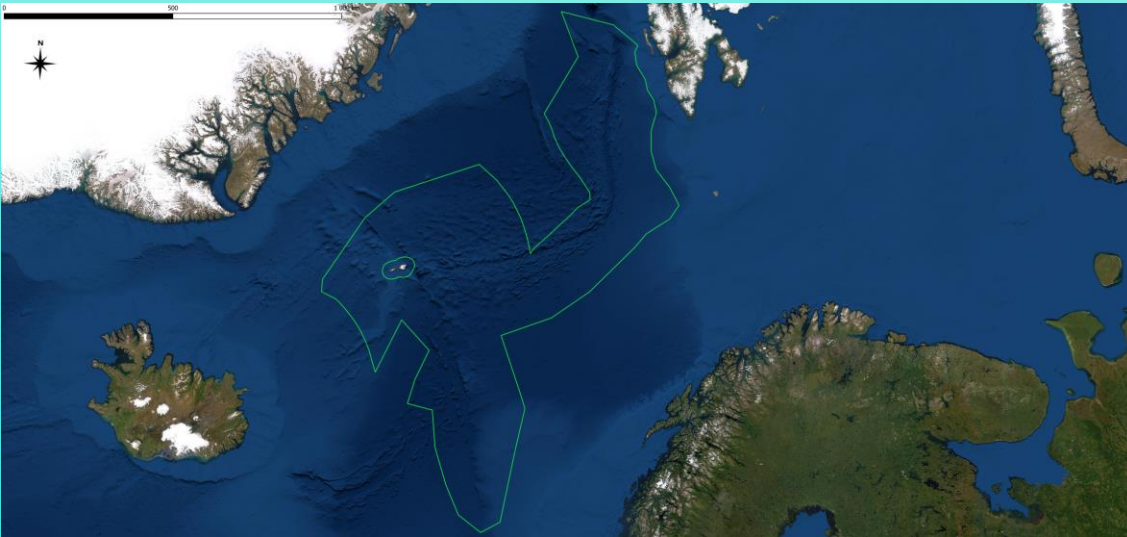
- Continue expanding our partnership model throughout the value-chain
- Actively working towards strategic partnerships, both in Norway and internationally
- Continuous process

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

Strategic priorities remain unchanged

1. LICENSE AWARD IN NORWEGIAN WATERS

2. PURSUING INTERNATIONAL OPPORTUNITIES



- Full life-cycle operation in Norway remains our key focus
- Norwegian government working towards opening in 2023
- Green Minerals has pole position in marine minerals on the NCS

- We are actively pursuing international opportunities
- We view both SMS and Nodules as attractive
- Open to enter into alliances and partnerships

CONTINUE TO POSITION GEM AHEAD OF OPENING

DIVERSIFYING OUR PORTFOLIO

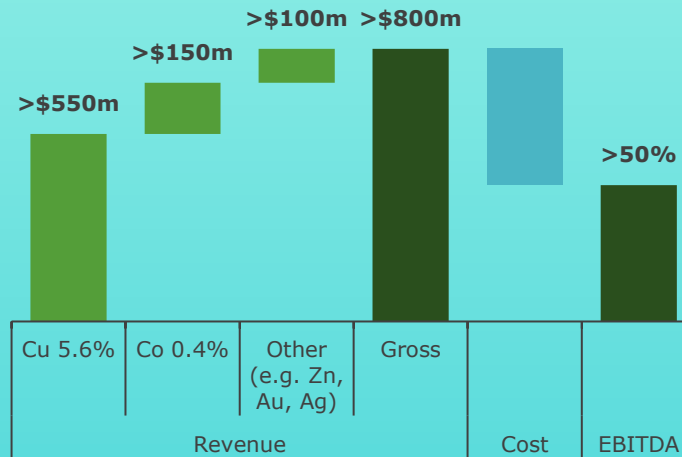
Aspirational targets – operations and financials

DEVELOPMENT / PRODUCTION



- 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
- **2028 target: full scale production with processing capability in one of the Nordic countries**

FINANCIAL TARGETS



- 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

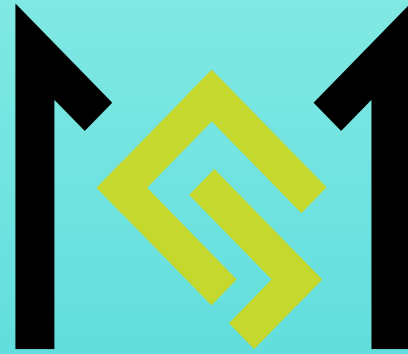
DE-RISKING

De-risking since start up:

- Political - Hurdal platform + LO
- Technical team
- Partnerships
- NPD/university data
- Timeline

Green Minerals summary

- A pioneer and frontrunner in marine minerals in Norway
- Opening decision in 7-10 months expected, public consultation announced this week
- USA and the EU declare > 30 minerals critical to national security
- Norway has the second longest portion of spreading ridge within our EEZ in the world (after Fiji).
- Investment case: a real option with a payout of USD 400M/PA against a low single-digit downpayment
- Large Oil&Gas contractors starting to position in DSM industry, shedding light on industry values
- First research cruise and first of its kind metallurgical study completed
- All 2022 targets reached



GREEN MINERALS

Enabling the green shift

Q&A