GREEN MINERALS

Enabling the green shift

SEPTEMBER 2021

Forward-looking statements

Green Minerals

- All statements contained in this presentation that are not statements of historical facts, including statements on projected operating results, financial position, business strategy and other plans and objectives for future results, constitute forward-looking statements and are prediction of, or indicate, future events and future trends which do not relate to historical matters. No person should rely on these forward-looking statements because they involve known and unknown risks, uncertainties and other factors which are, in many cases, beyond the company's control and may cause its actual results, performance or achievements to differ materially from anticipated future results, performance or achievements expressed or implied by the forward-looking statements and from past results, performance or achievements. These forward-looking statements are made as of the date of this presentation and are not intended to give any assurance as to future results. None of the company, its employees and representatives assumes any obligation to update these statements.

Our mission

GREEN MINERALS
Enabling the green shift

Deliver minerals for the Green Shift
in a responsible and sustainable manner

AGENDA

1. WHY so important? WHAT is marine minerals and WHERE are they found?
2. WHAT are the environmental impacts and mitigations?
3. WHAT is the resource potential?
4. WHAT is the timeline for opening and production? International licenses?
5. WHY Green Minerals and WHAT is the potential?

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Creating an industry bellwether

1 One of two listed pure-play marine minerals company globally

- First capital raise in November 2020
- Listing on Euronext Growth Oslo on 23 March 2021
  - 5000 shareholders
  - Market cap estimated around NOK 350,000,000
  - First mover: only DSM globally with a Stock Exchange listing as of March 2021
- Parent company to remain a large shareholder
  - Significant Group initial-phase synergies in exploration campaign, geophysics, finance and administration

2 Flexible and asset-light partnering strategy

- Asset-light partnering approach creating superior shareholder return
  - The Green Minerals approach: moving CAPEX to OPEX
- Hiring top talent with marine minerals specialization to innovate with partners on existing technologies – leveraging our organization
  - Study e.g: Engineer leverage ratio 10:1

3 Well-defined roadmap

- Near term updates:
  - Partner/cooperation agreements; LOI with Oil States Industries (UK) Ltd signed on March 23rd
  - Additional key hires, targeting 4 PhD`s giving impetus to our industry leading position
  - Cooperation with academia; agreement involving the Project ULTRA signed on April 14th
  - Funding programs; 3 grants from the Norwegian Govt`s Forskningsrådet signed in 1H 2021

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Our vision: Creating the marine minerals value chain

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Massive global demand for new metals sources

Commentary

- Massive need for new source of metals as the world electrifies and digital technology becomes available to more consumers
- Demand of base metals for production of EV batteries could increase 11x by 2050 (World Bank)
- $240bn CAPEX investment needed for the next 5 years only in base metals and gold (Wood Mackenzie)
- Will take decades to build the primary stock of metals before the world can depend on recycling for its needs

>$1,7trn in key metals capex needed by 2035

Cumulative capex: current commitments and AET-2 scenario requirements, USDbn

USD 1.7 trillion in capex needed to meet expected 2035 demand

Source: Wood Mackenzie, World Bank

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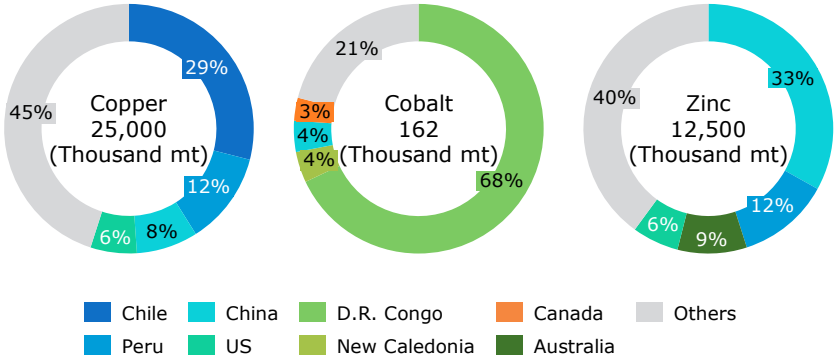
However, supply is limited

Commentary

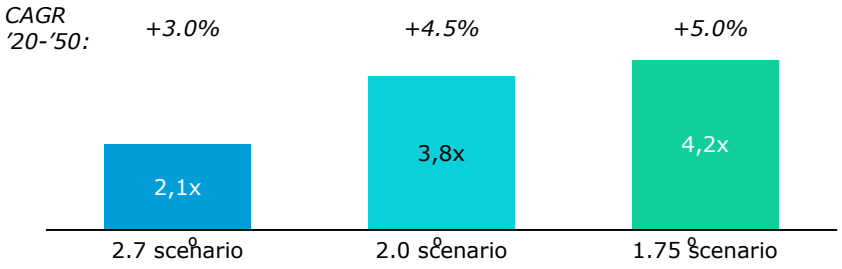
- Several environmental and social challenges with traditional metal production
  - 70 % of the world's cobalt is mined in the D.R. of Congo, significant amounts from unregulated artisanal mines and child labor
  - Metal production generates 350bn tons of waste and accounts for 11% of global energy use
  - Land ore grade declines, becomes less accessible and contains toxic levels of heavy elements
- Producing metals for the green transition this way is not sustainable as it simply shifts the burden from fossil fuels to metals
- In May 2018, the US Department of the Interior published list of 35 minerals considered critical to the US economy and national security, where supply might become limited in near future
- The Blue Mining initiative by the EU sees risk of increasing supply shortage of metals critical to EU`s high tech sector and is thus supporting search for alternative resources

Global Production selected minerals (2018)



2050 metals demand index

Indicative 2020 to 2050 metals demand growth by climate change scenarios



Source: Amnesty International, Rystad Energy, World Bank

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EMERGING COPPER SUPPLY GAP

Global copper market balance

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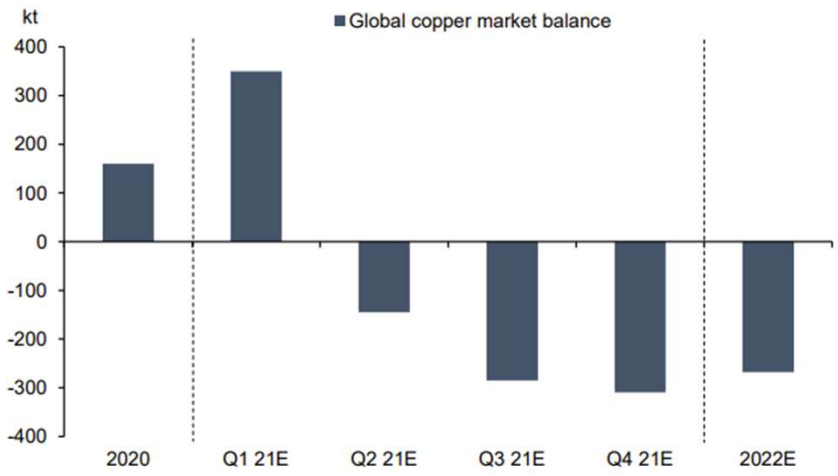
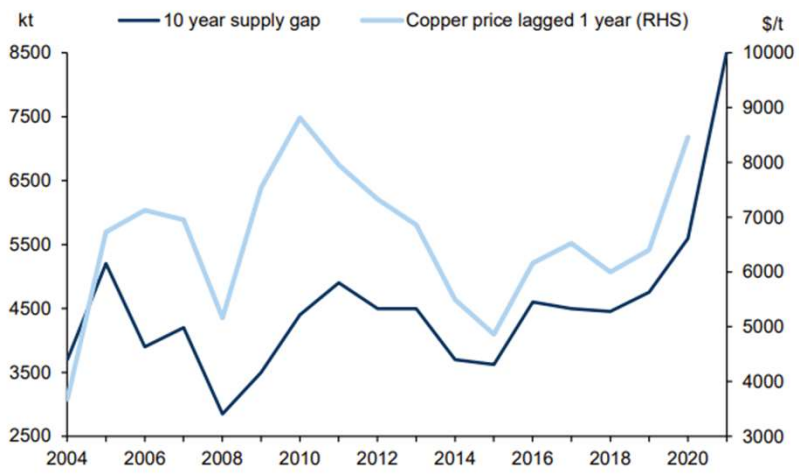


Copper supply gap vs price



Source: Goldman Sachs Investment Research

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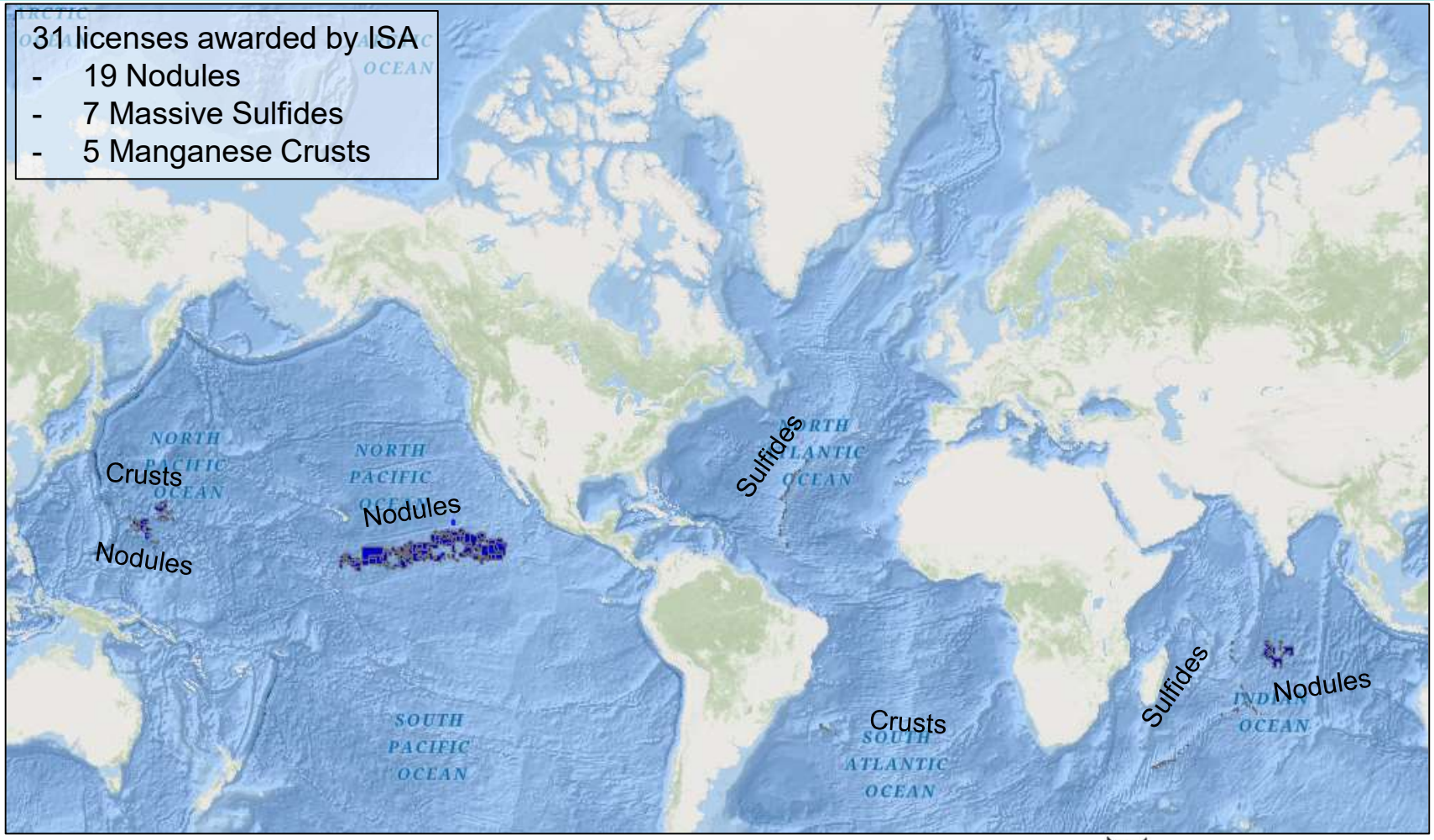
International activity

International Seabed Authority is the regulating authority in international waters



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NCS – the most attractive area in the world to kickstart the industry from

Commentary

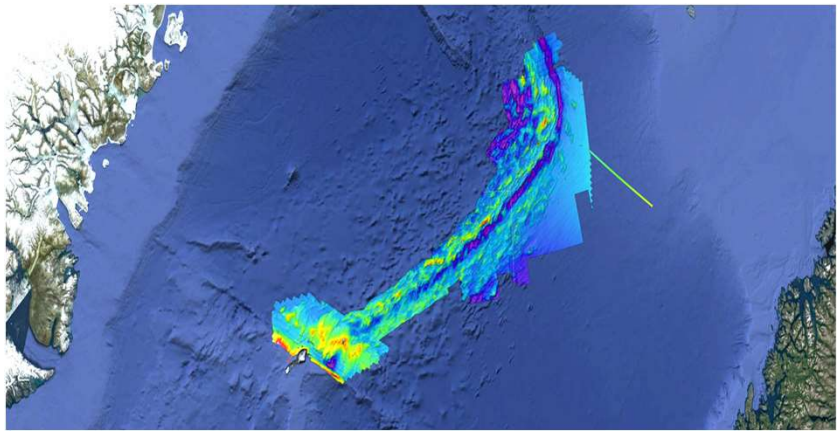
- Mineral exploration on the Norwegian continental shelf ("NCS") is attractive for several reasons:
  - Size and richness of reserves
  - One nation state, one regulatory authority
  - 60 years of succesful O&G regulation
- Norway has the second largest reserves estimate in the world with the Mohns & Knipovich Ridges (1030 km) located on NCS
- SMS (Seafloor Massive Sulfides) and Crusts found in several locations in the Norwegian Sea

Mean Resource estimate for key Metals[1] in SMS deposits in Mohns & Knipovich ridges

Cu	Zn	Au	Ag
6.9M tons copper	**7.1M** tons zinc	**1.5** tons gold	**10.5K** tons silver

Estimated value > 1000+ billion NOK

The Mohns & Kniprovich ridges



Findings from SMS samples	Findings from crust samples
Copper: up to 14 % (vs ~0.6 % for onshore mining)	**Lithium:** 20-80x Pacific Ocean
Zinc: up to 10 %	**Scandium:** 4-7x Pacific Ocean
Cobalt: up to 1 % (vs ~0.2 % for onshore mining)	**REE:** Up to 2x Pacfic Ocean

Notes: 1) Other metals and REEs not included in estimate; 2) 2019 metal prices used by Ellefmo et al and 9,25 nok/usd, Quantifying the Unknown

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Key events towards exploration license awards in 2024 and production in 2028

Pre - opening

- **2019** — **State ownership**: The Seabed Minerals Act approved
- **2021** — **Impact Assessment**: Opening process started MPD/NPD preparing Plan for IA
- **Q1 2021** — **Public Consultation**: Deadline 12.04.21 >50 remarks
- **2021 2022** — **Impact Assessment carried out**: Coordinated by NPD with various institutes and organizations
- **Q4 2022** — **Public Consultation**
- **Q2 2023** — **Decision**: Opening approved

Post-opening

- **Q2 2023** — **Survey License**: Survey license granted
- **Q3 2023** — **Green Minerals exploration survey cruise**
- **Q4 2023** — **Opening of license round**: Announce License Round
- **Q1 2024** — **License Applications**
- **Q2 2024** — **License Awards**: Exploration and production

License

- **Q2 2024** — **License Award**: Exploration license awarded
- **2024 2025** — **Exploration work programme**: Working towards "drill" decision
- **2025** — **Exploration drilling/ sampling**
- **2026** — **Pilot production**
- **2027** — **Impact Assessment**: IA for Production
- **2028** — **Full scale production**

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Terrestrial mining vs deep sea mining

Impact of minerals to 1bn electric cars	Onshore mining	Deep sea mining	Change
$C0_2$ equivalent emissions (Gt.)	1.5	0.4	-70%
Ore use (Gt.)	25	6	-75%
Deforestation (Sqm)	66,000	5,200	-92%
Solid waste (Gt.)	64	0	-100%
Freshwater ecotoxicity (1.4 DCB equivalent Gt)	21	0.1	-99%
Megafauna wildlife at risk (trillion organisms)	47	3	-93%

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Source: Paulikas et al. 2020

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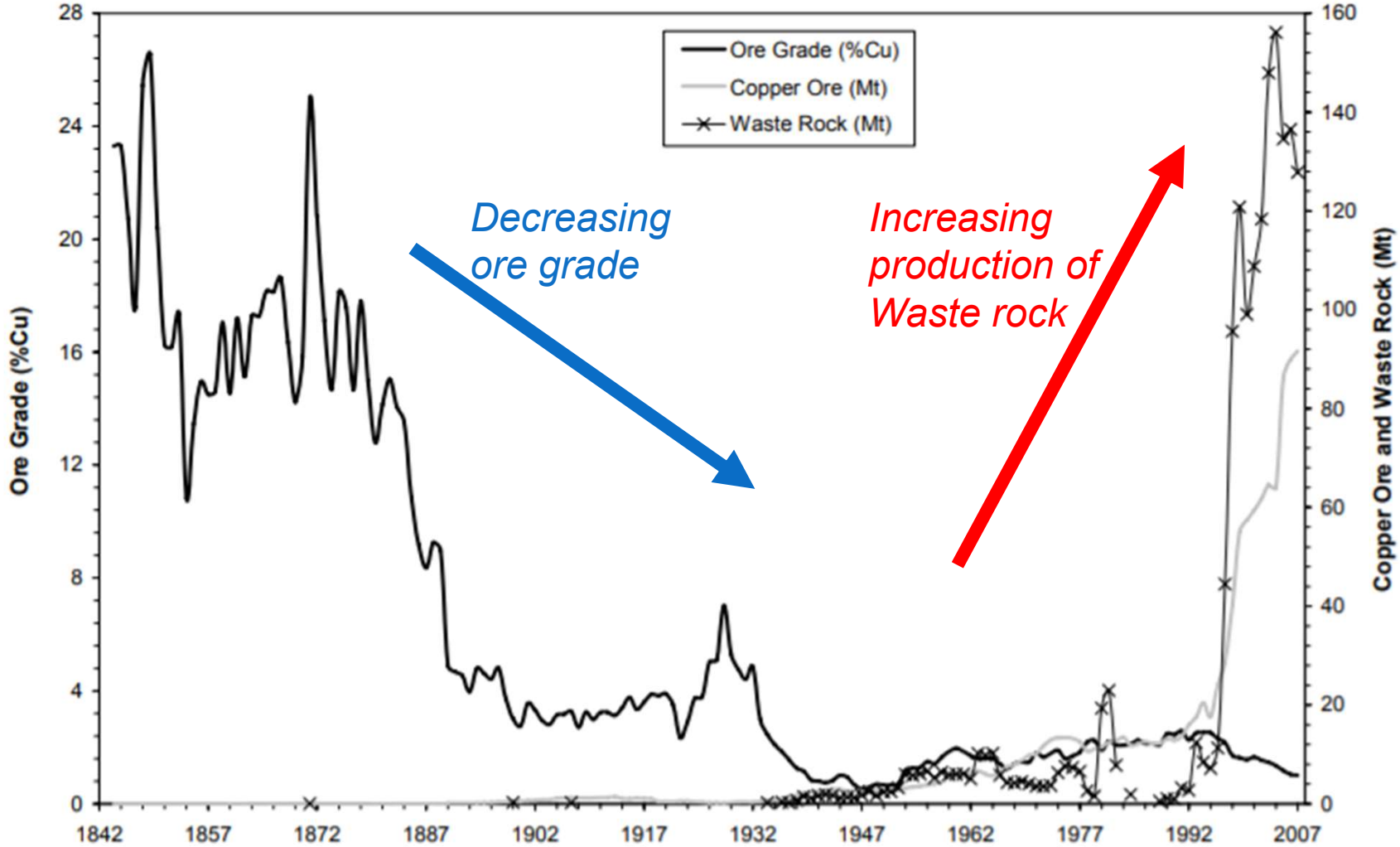
We do not mine ore – we mine waste !



Source: (Mudd, 2009)

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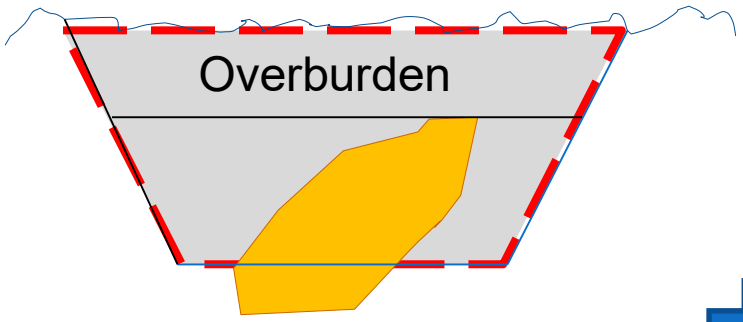
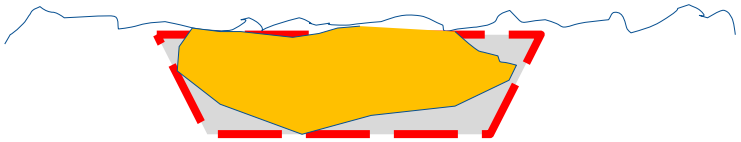
SMS changes the paradigm



Typical land deposit

Ore grade 5x higher (expected)

Waste reduction up to **75%**
Tailings reduction up to **50%**



Expected SMS deposit

Orebody

Pit limit – gray is waste rock

BONUS – SMS Waste can be separated on seabed:

- No surface waste handling and storage
- No risk to land water source
- Energy efficient – no lifting of unvaluable material
- Seawater can act as a buffer – AMD risk low

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Land mining is constantly more energy demanding – SMS can reduce the bill

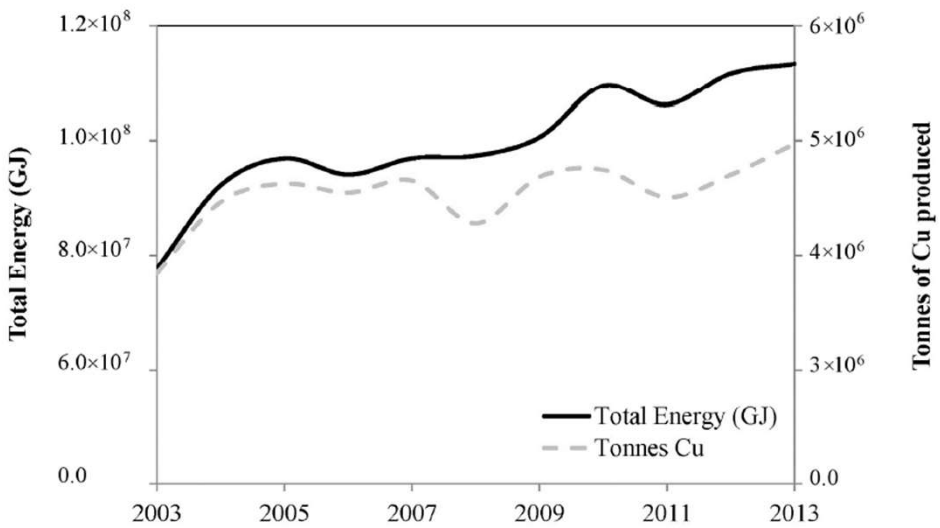
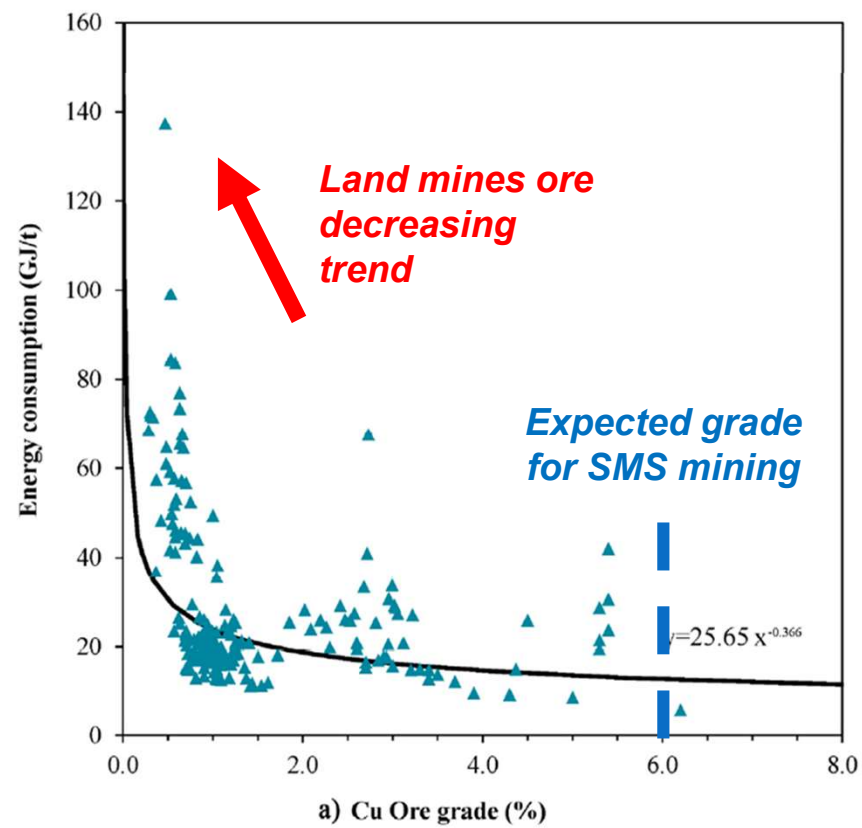


Figure 5. Total energy (GJ) and tonnes of copper produced for all the Chilean mines.

Source: (Calvo et al., 2016)



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Partners and affiliations

Exploration → Offshore production → Offshore logistics → Onshore processing facility

SeaBird Exploration

National Oceanography Centre

University of Southampton

Oil States

WEIR MINERALS

SMD

Stena

To be named

Potential universal partners

The European Green Deal
von der Leyen Commission
#EUGreenDeal

NMM NORSK FORUM FOR MARINE MINERALER

DSMA DeepSea Mining Alliance

Battery producers

Copper end-users

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Our strategy

Short term	Medium term	Long term	Ultimately
To be recognized as a pioneer and leader of the Marine Minerals industry	Win exploration and production licenses to capitalize on >NOK 1000bn of resource potential on the Norwegian Continental Shelf	Expand our portfolio to international licenses and become a global marine minerals company	Transform into a truly circular economy business model by recycling metals as the primary stock of metals reaches plateau

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Aspirational targets (I)

Exploration

- Expect first Research cruise in 2021, incl ecosystem impact evaluation
- To be granted Survey license within 3 months after opening
- To be awarded 3 Production Licenses by early 2024
- Minimum one discovery of SMS with +5m tonnes of ore by YE 2024/25
- +5% average grade Cu (+ others Zn, Au, Ag, trace elements)
- or alternatively +8% Zn + 1% Cu (+ others Au, Ag, trace elements)

Development/Production

- First system ready to operate in 2026 (pilot):
- Full scale production in 2028:
  - 5-8000 tonnes/day ore to surface
  - 200+ day/year operations
  - 1,5MT ore/year
- Processing performed in Norway/Scandinavia
- Immense focus on subsea ecosystem and biodiversity

Finished product/processing

- Annual gross value of ore from start production of (based on current metal prices and "ore to metal factor"):
- $550M for Copper only (+ additional value for other metals) or
- $400M for Zinc/Copper only (+ additional value for other metals)
- $75-100m est in other metals (Nickel, REE, Lithium++)
- Introducing >$800M with 0.25% Cobolt

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Aspirational targets (II)

Commentary

- **One Green Minerals full scale production system:**
  - Flow rate: min 5-8000 tonnes/day
  - Utilisation: min 200+ days/year
  - Annual ore production: min 1,5mt
- **Gross revenues: >$550m/yr on copper only**
- **Gross revenues >$800m/yr if adding 0.25% cobolt**
  - Revenue/tonne ore: 10-20x higher than similar onshore
  - EBITDA margins > 50%
- **Environmental footprint:**
  - 90% lower than similar onshore

Key metrics - 30MT deposit example

Metric	Unit	
Mineral resources	Million tons	**30**
Enrichment (CuEq)	%	**5.3**
Sum revenue	USDm	**7,360**
Sum Expex	USDm	**40**
Sum Capex	USDm	**780**
Sum Opex	USDm	**2,250**
Sum Abex	USDm	**100**
Unit cost (CuEq)	USD/kg	**2.0**
Lifting cost (CuEq)	USD/kg	**1.4**
Pre-tax NPV0	USDm	**4,260**
Pre-tax NPV10	USDm	**746**
Pre-tax IRR	%	**29**

Source: Rystad

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Investment highlights

Green Minerals

A pioneer in offshore mining and the leader in Marine Minerals on the Norwegian Continental Shelf

1 *Marine Minerals needed for the Green Shift*

2 >NOK 1000bn opportunity on NCS

3 *GEM with capital-light partnership strategy across the entire value chain*

4 *Well-defined roadmap towards first licenses in 2023 and pilot production in 2026*

5 A real option with very low downpayment against a >$350m annual EBITDA opportunity, i.e inherent flexibility and highly attractive risk-reward

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Supporting global sustainability

SUSTAINABLE DEVELOPMENT GOALS

Providing minerals for the green transition

Fighting child labor while creating sustainable jobs and economic growth

Creating sustainable Rare Earth Elements (REE) and base metals to used in new form of transportation

Reducing waste generation and enabling companies´ green transition

Enabling CO2 reduction being key elements in new technology

Reducing deforestation

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Enabling the green shift