The Metals Company: Unlocking the World's Largest Estimated Undeveloped Source of Battery Metals

December 2023

Forward looking statements.

This presentation contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that relate to future events, TMC the metals company Inc.’s (“TMC” or the “Company”) future operations and financial performance, and the Company’s plans, strategies and prospects. These statements involve risks, uncertainties and assumptions and are based on the current estimates and assumptions of the management of the Company as of the date of this presentation and are subject to uncertainty and changes. Given these uncertainties, you should not place undue reliance on these forward-looking statements.

Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, those set forth under the heading “Risk Factors” contained in TMC’s Annual Report on Form 10-K for the year ended December 31, 2022, which was filed with the Securities and Exchange Commission on March 27, 2023, as well as any updates to those risk factors filed from time to time in TMC’s subsequent periodic and current reports. All information in this presentation is as of the date of this presentation, and the Company undertakes no duty to update this information unless required by law.


Date: 30/05/2020
Time: 18:20:36 UTC
Dive No: 144
Easting : 482149.97m
Northing: 1147003.90m
HDG: 56.92
Depth: 4294.20m
Alt: 1.17m
Here is what
a polymetallic nodule
field looks like.

“Deep-sea mining” usually covers three types of resources.

Polymetallic nodules

25	28	29	27
Mn	Ni	Cu	Co
Manganese 54.938	Nickel 58.693	Copper 63.546	Cobalt 58.933

3,800-5,500m depth

The Abyssal Plains

2-30 cm diameter discrete rocks formed by dissolved metal compounds precipitating around a nucleus
Growth: 10-100mm per million years

Unattached to the seafloor
Can be collected using gentle water jets directed at nodules in parallel with the seafloor

Low-food, low-energy environment

10 grams of biomass / m^2

Cobalt crusts

27	28	25	78
Co	Ni	Mn	Pt
Cobalt 58.933	Nickel 58.693	Manganese 54.938	Platinum 195.084

800-2,500m depth

Seamounts

2-26 cm thick, rock-hard, metallic layers that precipitate on the flanks of submarine volcanoes
Growth: 1-5mm per million years

Integral part of the seafloor that requires hard-rock cutting to break the ore from the substrate

Abundant food supply due to nutrient-rich water upwelling from near-bottom currents
High frequency destination for tuna and sharks

10-100x biomass vs. Abyssal Plain

Seafloor massive sulfides

29	79	47	30
Cu	Au	Ag	Zn
Copper 63.546	Gold 196.966	Silver 107.868	Zinc 65.38

1,000-4,000m depth

Hydrothermal vents

Tall chimney-like structures that form at hot vents where sulfide-enriched water flows out of the seabed, causing dissolved metals to bind into minute sulfide particles and sink as fine precipitants to the bottom

Integral part of the seafloor that requires hard-rock cutting to break the ore from the substrate

Abundant food supplied by chemoautotrophic bacteria which exploit energy-rich chemical compounds from the vents

100x biomass vs. Abyssal Plain

Source: World Ocean Review 2014; Bar-On et al, The Biomass Distribution on Earth, PNAS, June 2018, www.pnas.org/cgi/doi/10.1073/pnas.1711842115

Why nodules?

Polymetallic

One new nodule project can replace three new mines on land.

Far offshore

Far away from people, no physical impact on communities.

Very deep

The deeper you go, the less life you will find.

Unattached

No overburden to remove, no hard rock to break. Nodules are *collected*, not mined.

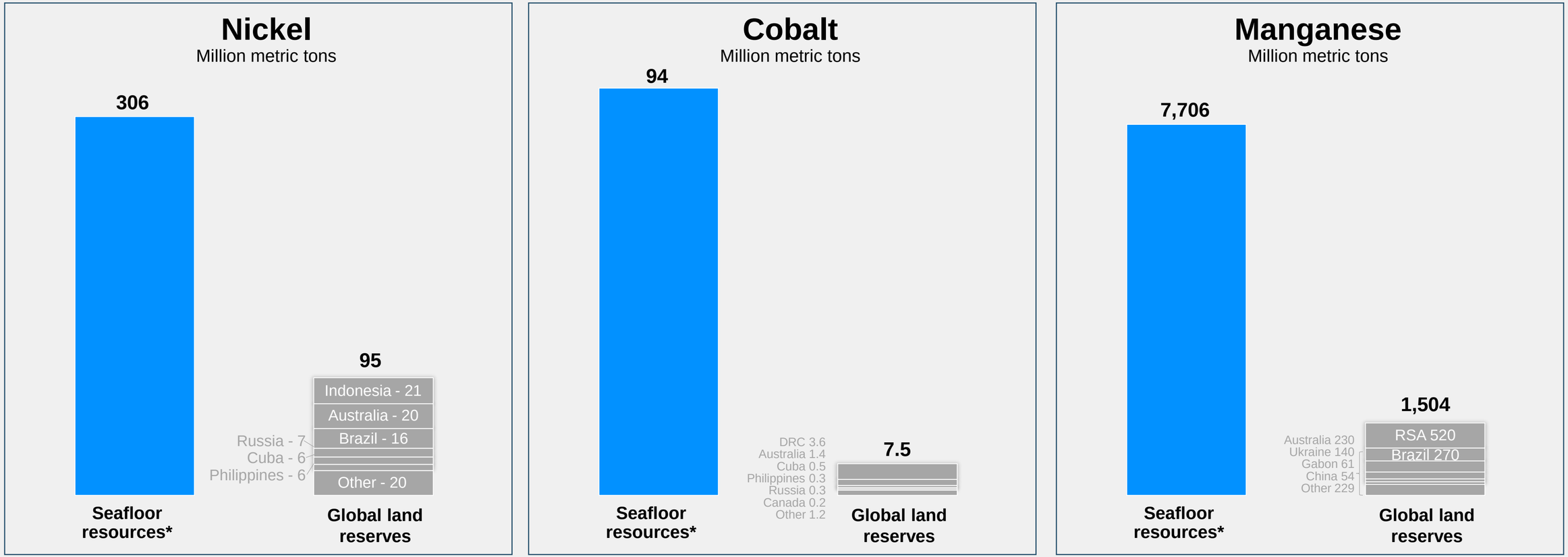
Portable

Once nodules are transferred to a bulk carrier, they can go to placed with existing infrastructure and low-carbon power.

No toxic elements

With limited toxic levels of deleterious elements, most of nodule mass can be turned into product = no toxic tailings.

Why explore the seafloor? That's where most of the planet's nickel, cobalt & manganese is.



*Combined estimates for Clarion-Clipperton Zone polymetallic nodules and Prime Crust Zone cobalt crusts

Source: USGS 2021 commodity summaries for terrestrial resources; James R. Hein, Kira Mizell, Andrea Koschinsky, Tracey A. Conrad, Deep-ocean mineral deposits as a source of critical metals for high- and green-technology applications: Comparison with land-based resources, Ore Geology Reviews, Volume 51, 2013, Pages 1-14, ISSN 0169-1368, doi.org/10.1016/j.oregeorev.2012.12.001 for CCZ nodules and PCZ crusts

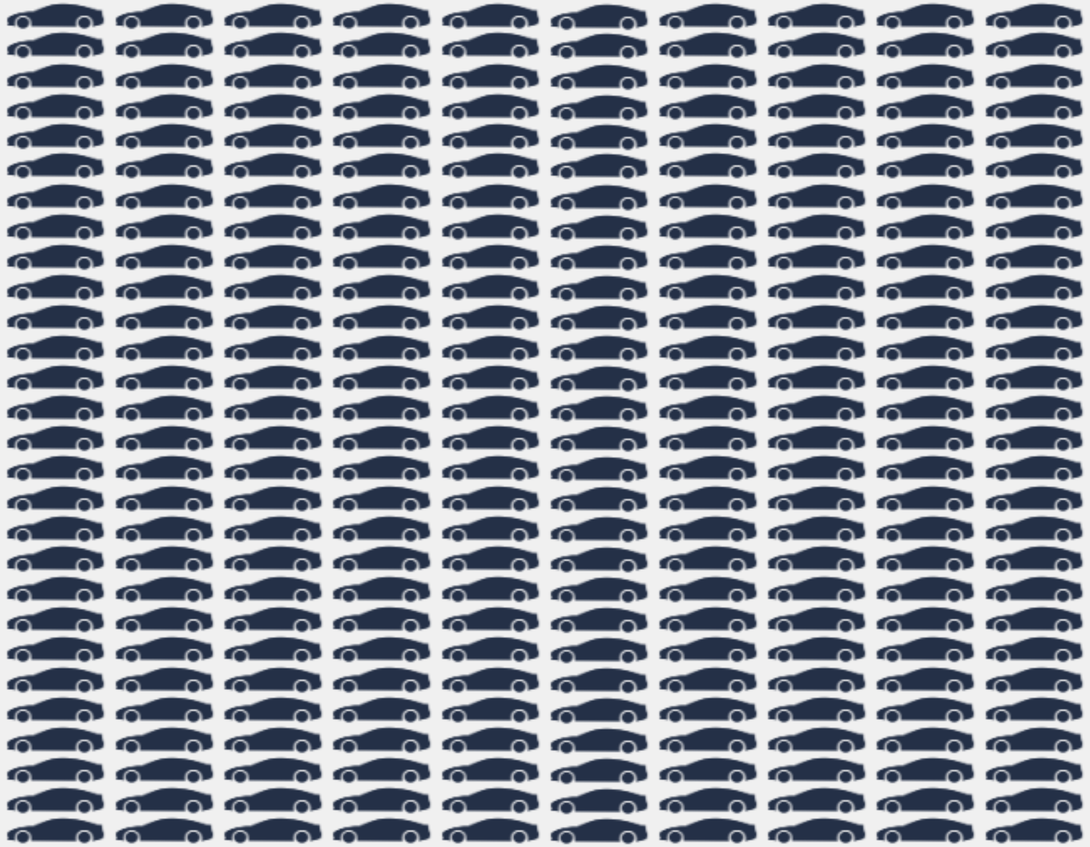
TMC estimated resource alone has the potential to supply U.S. demand for nickel, cobalt and manganese.

= Approximate raw material requirements of a million Electric Vehicles[1]

The Metals Company

15,700,000 t Ni / 2,400,000 t Co / 13,300,000 t Cu / 350,000,000 t Mn Total Resource

Estimated *In situ* quantities of nickel, copper, cobalt and manganese equivalent to the requirements of 280 million vehicles or the entire U.S. passenger vehicle fleet[1]



Eagle Mine

137,000t Ni / 3,700t Co Total Resource

Only U.S. miner of nickel or cobalt reaching end of life 2025[2]
*Nickel concentrate (11-14%) exported for refining

Talon Metals

135,000 t Ni / 3,500 t Co Total Resource

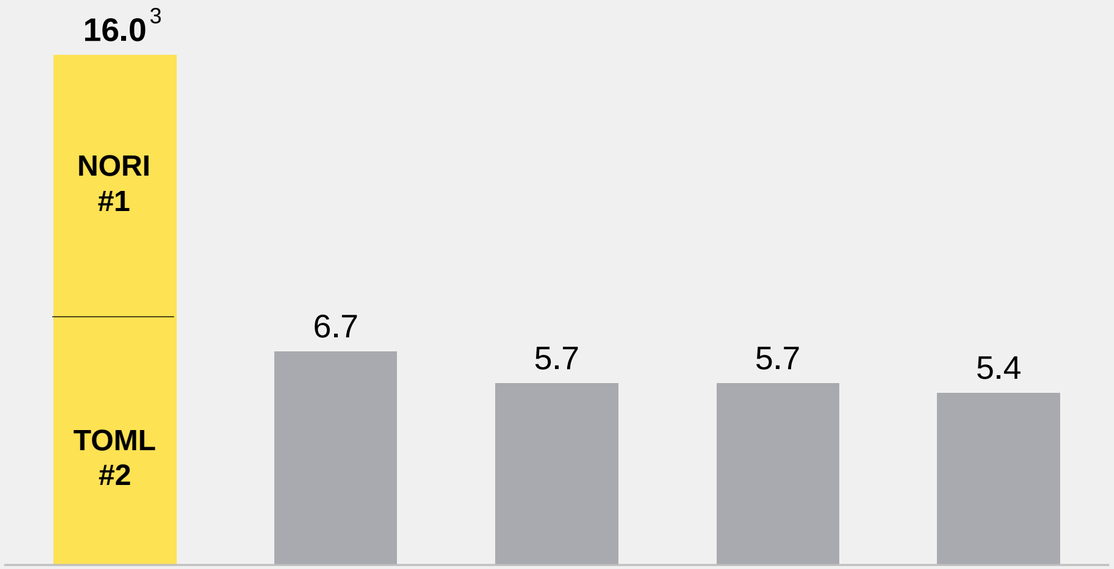
Unpermitted Tamarack project in Minnesota, enviro. review in 2023[3]
*Nickel concentrate (13%) likely exported for refining

[1] Internal company calculation assuming 75kWh batteries with NMC811 chemistry and nodule resource grade and abundance, “Where Should Metals for the Green Transition Come From?”, Paulikas et al, LCA white paper, April 2020. Calculation based on estimated contained value of nickel.
[2] https://minedocs.com/23/Eagle-TR-12312022.pdf
[3] https://talonmetals.com/wp-content/uploads/2020/08/Talon-Tamarack-PEA-Update-12Mar2020-Final.pdf

TMC: ranked in 2022 and 2023 as #1 and #2 largest undeveloped nickel projects on the planet[1]; the alternative to Russian- and Chinese-funded supply.

World's largest nickel projects – 2023

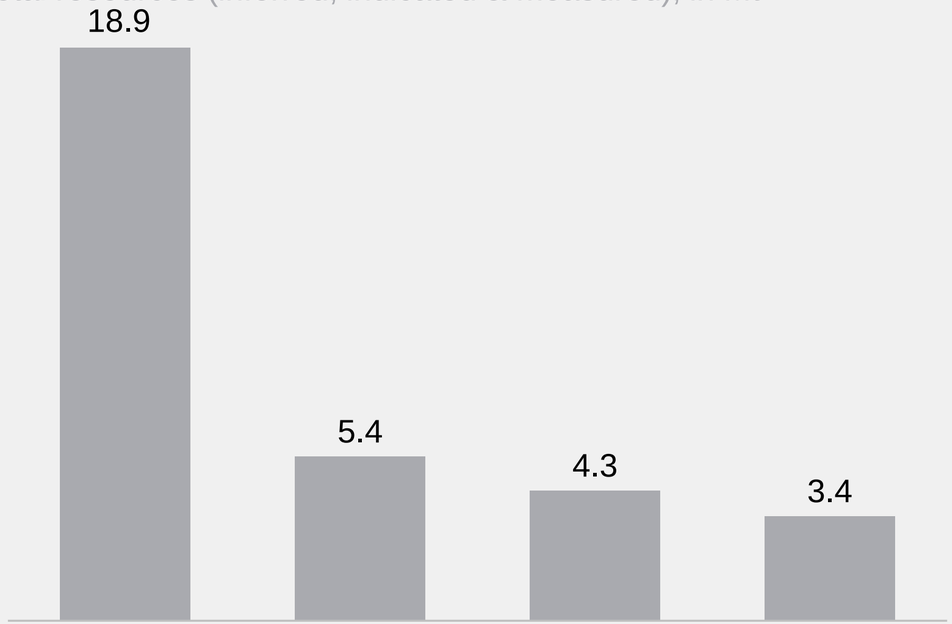
Total est. resources (inferred, indicated & measured), in Mt[1]



	TMC portfolio	Sangaji	Turnagain	Dumont	Crawford
Location	Clarion Clipperton Zone	Indonesia	Canada	Canada	Canada
Nickel equivalent grades[4]	**3.2%**	1.8%	0.3%	0.2%	0.2%

World's largest nickel operations ranked by resource

Total resources (inferred, indicated & measured), in Mt[2]

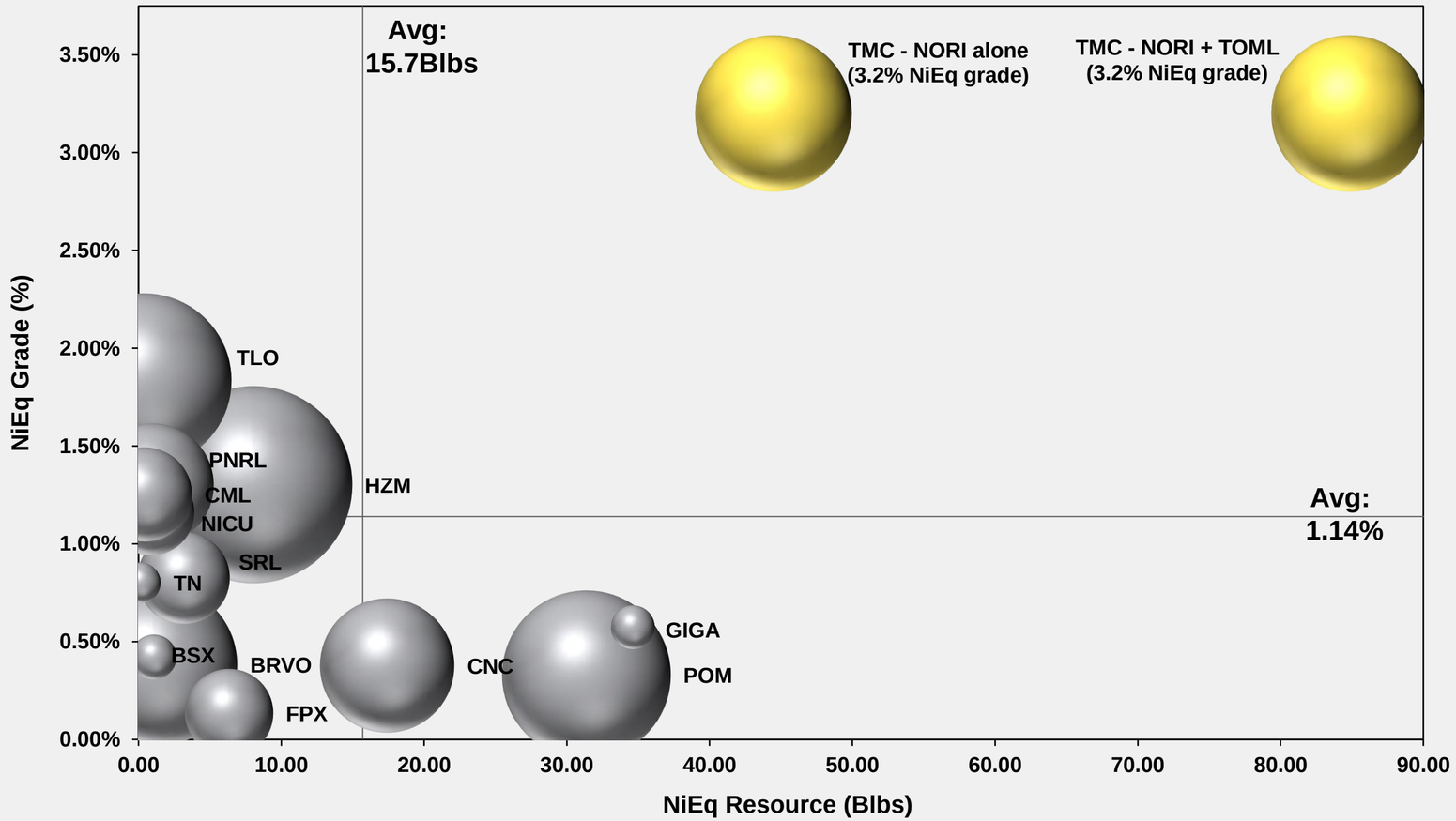


	Nornickel	FeNi Halmahera	Jinchuan	Koniambo
	Russia	Indonesia	China	New Caledonia
	2.3%	1.9%	1.3%	2.5%

[1] https://www.mining.com/featured-article/ranked-worlds-biggest-nickel-projects/
[2] Global Nickel Industry Cost Summary, Wood Mackenzie, August 2020; inclusive of reserves. Asset Reports for FeNi Halmahera, Jinchuan and Koniambo.
[3] Canadian NI 43-101 Resource Statement for full field financial model (internal TMC development scenario).
[4] Nickel equivalence calculation uses NORI-D Model price deck as stated in NORI Initial Assessment available at investors.metals.co.

Some nickel projects have high grade, some have a large resource, but TMC is an outlier among peers with the largest NiEq resource and highest NiEq grade[2] among other major undeveloped nickel projects.

Nickel Equivalent Grade (%) vs. Resource (Billion Pounds) - Bubble Size Reflects Relative Enterprise Value[1]



[1] Comparable nickel companies include Horizonte Minerals (HZM), Talon Metals (TLO), Bravo Mining (BRVO), Polymet Mining (POM), Canada Nickel (CNC), Premium Nickel (PNRL), Sunrise Energy (SRL), FPX Nickel (FPX), Manga Mining (NICU), Blackstone Minerals (BSX), Giga Metals (GIGA), Tartisan Nickel (TN), Canickel Mining (CML). Wyloo Metals (Eagle's Nest) and Waterton (Dumont) were omitted as they are privately held companies; Bahia Nickel is a private company and is included. Market data as at: 14-Mar-23

[2] Industry-standard metal equivalence calculation using NORI Technical Report and NORI-D Model available at investors.metals.co.

Source: Stifel GMP investment banking, using data from Bloomberg, FactSet, Company disclosures

Recent global headlines reflect increased investment and interest in seafloor resources…

Transocean / GSR

- In February 2023, Transocean agreed to contribute the stacked Ocean Rig Olympia (a Samsung 10000 drillship) for GSR's ongoing exploration work, as well as make a nominal cash investment[1]
- GSR integrated system test scheduled for 2025[1]

Norway

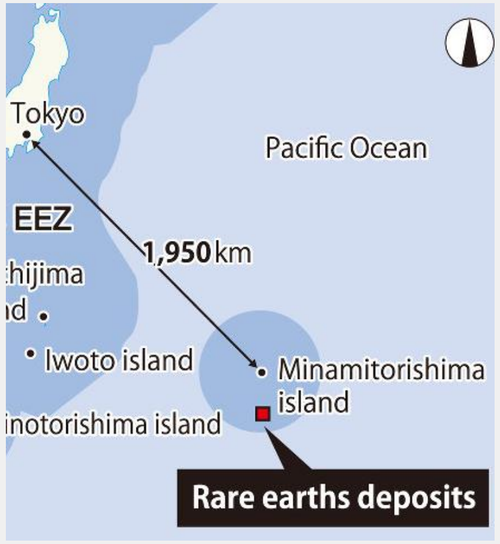
- In June 2023, the Norwegian government proposed opening its waters to deep-sea mining with strong support from Prime Minister[2]
- Norway's Loke Marine acquires UKSR contracts in CCZ in March 2023, targeting commercial ops in 2030[2]

Japan

- In December 2022, Japan announced plans to possibly begin extracting rare earth elements from the mud on the deep sea bottom in an area off Minami-Torishima Island as early as 2024, budgeting $44 million for trial extraction equipment[3]

France

- In February 2023, French Research Institute for the Exploitation of the Sea (Ifremer) extended their CCZ exploration contract, conditional on readiness to begin exploitation in 5 year and France/Ifremer compliance with UNCLOS/ISA regime[4]
- France recently softened their position calling for a deep sea mining ban, instead favoring a 'precautionary pause'

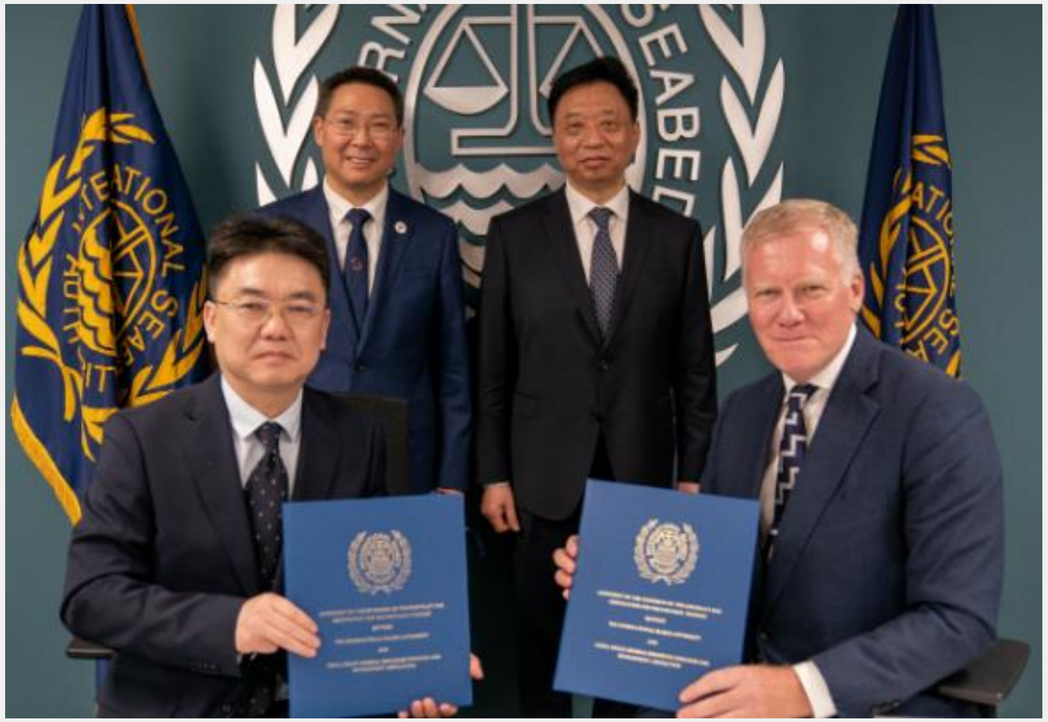


[1] "Transocean Agrees to Investment in Global Sea Minerals Resources, Contributes Stacked Drillship," Transocean press release, February 9, 2023
[2] "Norway set to become one of the first countries to start deep-sea mining," Mining Technology, June 9, 2023, "Lockheed Martin sells deep-sea mining firm to Norway's Loke," Reuters, March 16, 2023
[3] "Japan to begin extracting rare earth metals from seabed in 2024," Nikkei Asia, December 24, 2022
[4] https://www.isa.org.jm/news/ifremer-signs-second-contract-extension-exploration-polymetallic-nodules-clarion-clipperton

…and prioritization of seafloor resources by Chinese leadership.

China

- On February 28, 2023, China Ocean Mineral Resources Research and Development Association (COMRA) signed a second contract extension for exploration for polymetallic nodules[1]
- On March 14, 2023, Mining.com released an article titled "China to step up deep sea mining efforts," citing the English language state newspaper China Daily's interview with Ye Cong of the China Ship Scientific Research Center and a member of the Chinese People's Political Consultative Conference, a policy shaping body
  - Ye noted that mining the metals found in nodules on the seafloor – mainly nickel, copper, cobalt and manganese – will "help us reduce the heavy reliance on foreign suppliers."
- Washington Post in October 2023:
  - "Contractors like The Metals Company — the only firm to test a full deep-sea mining system in the Clarion-Clipperton Zone — are ahead in the technology race, but Chinese companies are catching up."



[1] https://www.isa.org.jm/news/comra-signs-a-second-contract-extension-for-exploration-for-polymetallic-nodules

Recent reporting suggests commercial nodule collection is now a question of ‘when,’ not ‘if,’ with strong support from The Economist and deep-sea explorer & director James Cameron.

The Telegraph

Deep sea mining for minerals is ‘better than ravaging rainforests’, says James Cameron

July 2023

The New York Times

Eric Lipton tweet: “Doesn’t appear to be enough votes to indefinitely block mining…it appears it is a question of when—not if—industrial scale seabed mining will start.”

April 1, 2023

Forbes

Green transportation depends on the success of deep-sea mining

April 2023

The Economist

‘It’s time to mine the seabed’: Getting nickel from the deep causes much less damage than getting it on land

July 2023

US House and Senate members repeatedly urging Biden administration and Pentagon to deliver a domestic plan on the processing of nodules.

US House National Defense Authorization Act FY24: Critical and Strategic Minerals Sourcing from Seafloor Resources
June 2023

US House members urge Defense Department to support nodule processing in Texas
Nov 2023

US Senators push for UNCLOS ratification as members of Congress call for ISA to adopt seafloor mining regulations
Nov 2023

Senator Murkowski presses Energy Department on seabed mining
February 2022

Former US Military leaders urge Defense Department to include nodules in strategic planning
February 2022

Members of US House:
It is essential that the US secures its own innovative supply of critical…minerals, including polymetallic nodules.
June 2023

Nodule collection technology demonstrated in the 1970s.

1970’s pilot testing in CCZ

Kennecott Copper Corp
British Petroleum, Rio Tinto-Zinc Corp
Consolidated Gold Fields
Noranda Mines, Mitsubishi Corp

Deepsea Ventures Inc.
US Steel, Sun Oil, Union Miniere

Ocean Management Inc.
International Nickel Company
Metallgesellschaft AG
Sumitomo, Sedco

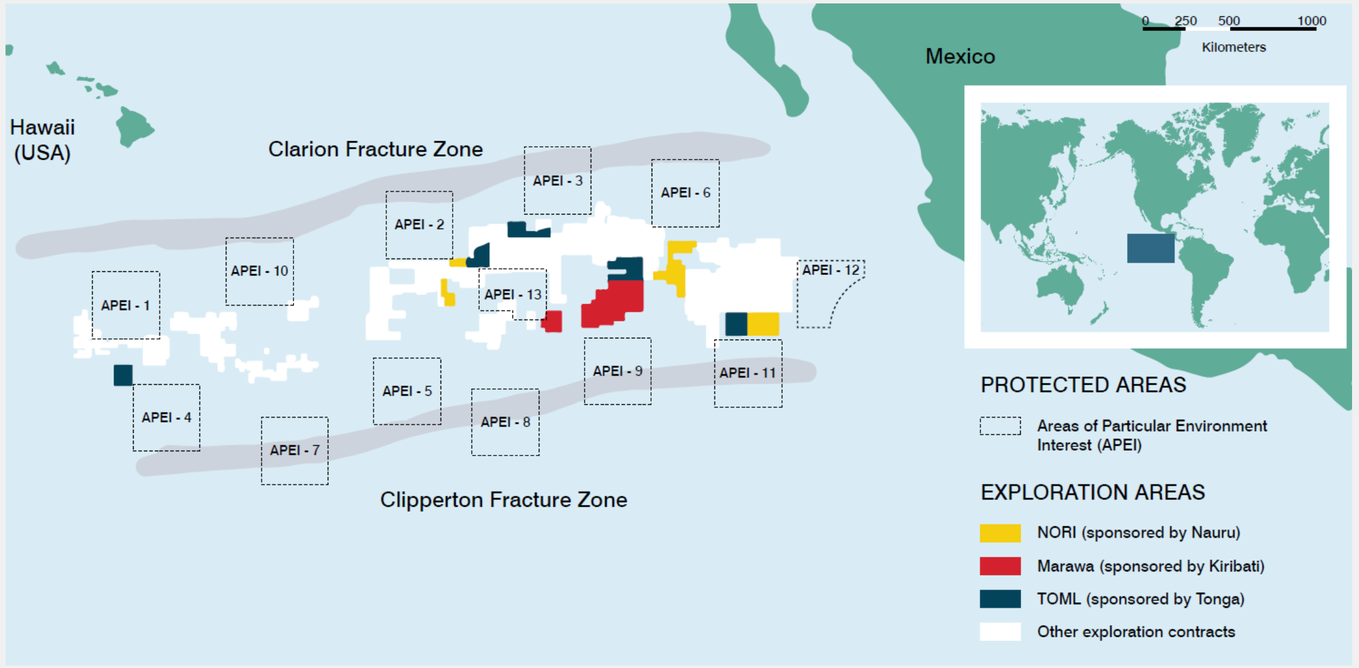
Lockheed
Amoco Minerals, Shell Petroleum

Present Day

Offshore Diamond Mining
De Beers, NAMCO, Samicor

Source: July 17,1977 The New York Times. https://www.nytimes.com/1977/07/17/archives/mining-the-wealth-of-the-ocean-deep-multinational-companies-are.html

TMC: technical resource statements issued on NORI + TOML, with an *in situ* estimated resource of Ni, Cu, Co and Mn sufficient to electrify the entire U.S. passenger car fleet[1].



TMC exploration contract area	NORI[2]	TOML[3]	Marawa
Sponsoring State	Republic of Nauru	Kingdom of Tonga	Republic of Kiribati
Exploration area	74,830 km^2	74,713 km^2	~75,000 km^2
Technical resource statement	Yes	Yes	Work in progress
Estimated nodule tonnage	866[4] million tonnes (wet)	768 million tonnes (wet)	
Avg. grade across contract area:			
Manganese	29.5%	29.2%	
Nickel	1.3%	1.3%	
Copper	1.1%	1.1%	
Cobalt	0.2%	0.2%	

[1] Assuming 75kWh batteries with NMC811 chemistry and nodule resource grade and abundance, “Where Should Metals for the Green Transition Come From?”, Paulikas et al, LCA white paper, April 2020. Calculation based on estimated contained value of nickel.
[2] SEC Regulation S-K (Subpart 1300) Compliant NORI Clarion Clipperton Zone Mineral Resource Estimate AMC, 17 March 2021. 521 Mt Inferred, 341 Mt, 4 Mt Measured.
[3] SEC Regulation S-K (Subpart 1300) Compliant TOML Clarion Clipperton Zone Project Mineral Resource Estimate, AMC, 26 March 2021. 696 Mt inferred, 70 Mt Indicated, 2.6 Mt Measured.
[4] SEC Regulation S-K (Subpart 1300) Compliant NORI Area D Clarion Clipperton Zone Mineral Resource Estimate and associated financial model, AMC, 17 March 2021. 11 Mt Inferred @ 1.4% Ni, 1.1% Cu, 0.1% Co and 31.0 % Mn and 15.6 Kg/m2 abundance, 341 Mt Indicated @ 1.4% Ni, 1.1% Cu, 0.1% Co and 31.2% Mn and abundance 17.1Kg/m2, 4 Mt Measured @1.4% Ni, 1.1% Cu, 0.1% Co and 32.2% Mn and 18.6 Kg/m^2.

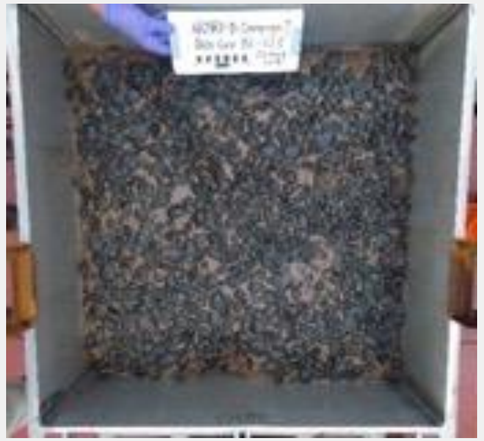
Resource definition: 2D resource allows effective definition through sampling and imagery.

~250
box cores collected[2]

~82,000
kg (wet) nodules collected[2]

~13,950
biological samples collected[2]

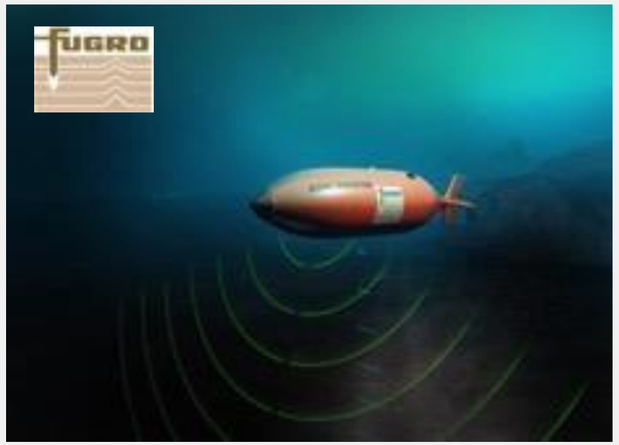
BOX CORE SAMPLING[1]

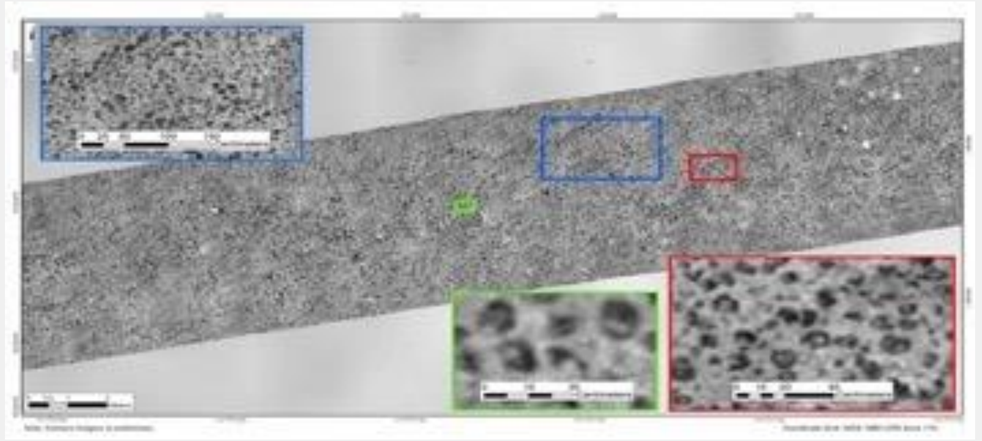


AUV CAMERA IMAGERY[1]

178,591
km² of high-res bathymetric survey[2]

5,439
km² detailed seafloor imagery[2]



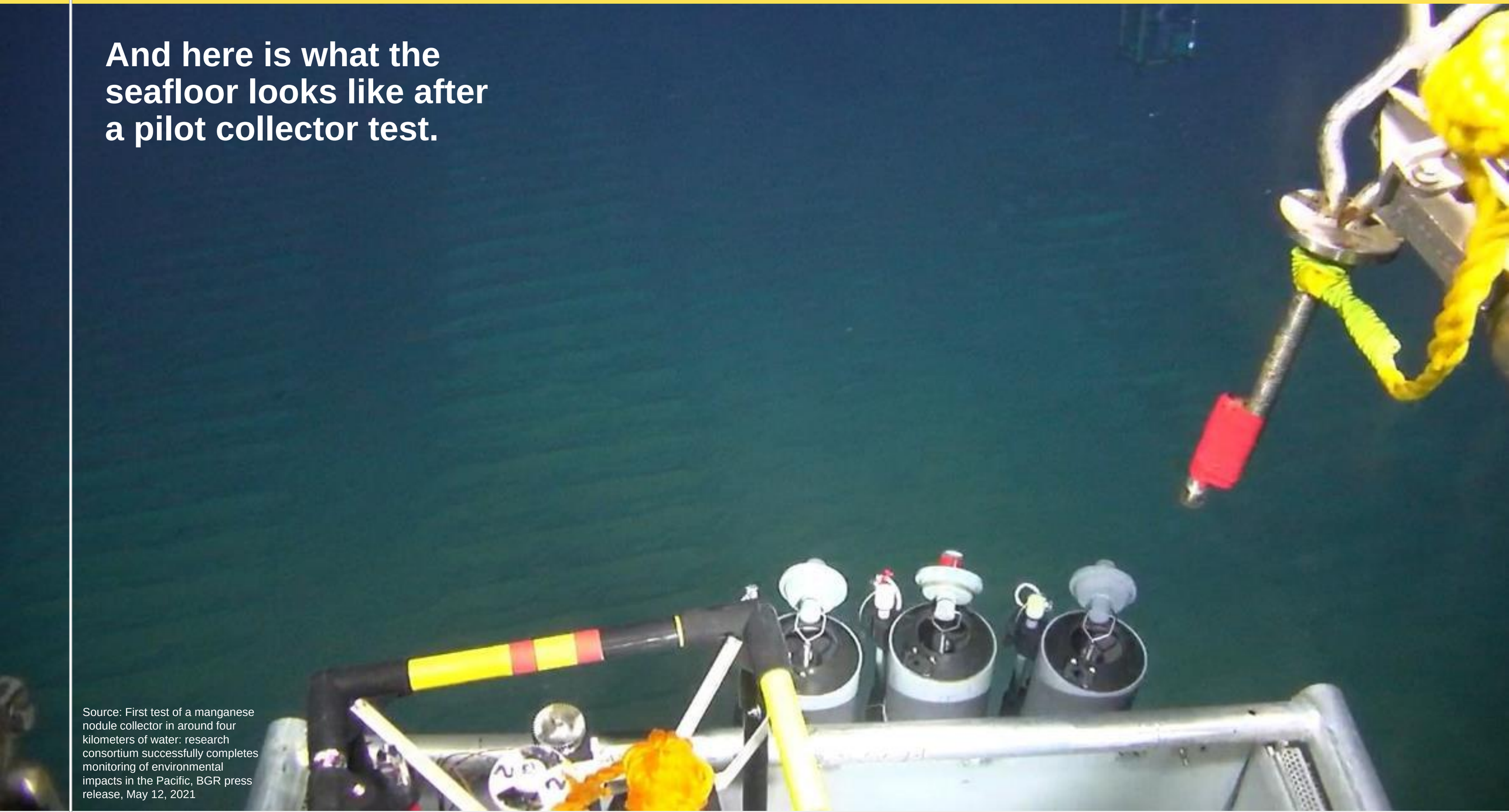


[1] Images from DeepGreen's resource survey offshore campaigns in NORI contract area.
[2] Boxcores, nodules collected, high-res bathymetry, detailed bathymetry – compiled by DeepGreen from - Canadian NI 43-101 and SEC Regulation S-K (Subpart 1300) Compliant NORI Area D Clarion Clipperton Zone Mineral Resource Estimate and associated financial model, AMC, March 2021. Canadian NI 43-101 Compliant TOML Clarion Clipperton-Zone Project Mineral Resource Estimate, AMC, July 2016 and DeepOcean NORI – D Bulk Sampling Report, 2020. Erias Cruise 6a Biological and Physiochemical Co-Sampling Report NORI area D post cruise, 2019; Erias Cruise 6b Biological and Physiochemical Co-Sampling Report NORI area D post cruise report, 2019.

GSR pilot collector test.

Video available at: https://vimeo.com/653068330/7f4d928878

And here is what the seafloor looks like after a pilot collector test.



Source: First test of a manganese nodule collector in around four kilometers of water: research consortium successfully completes monitoring of environmental impacts in the Pacific, BGR press release, May 12, 2021

Pilot collection system test and initial environmental impact monitoring campaign completed in Dec 2022.

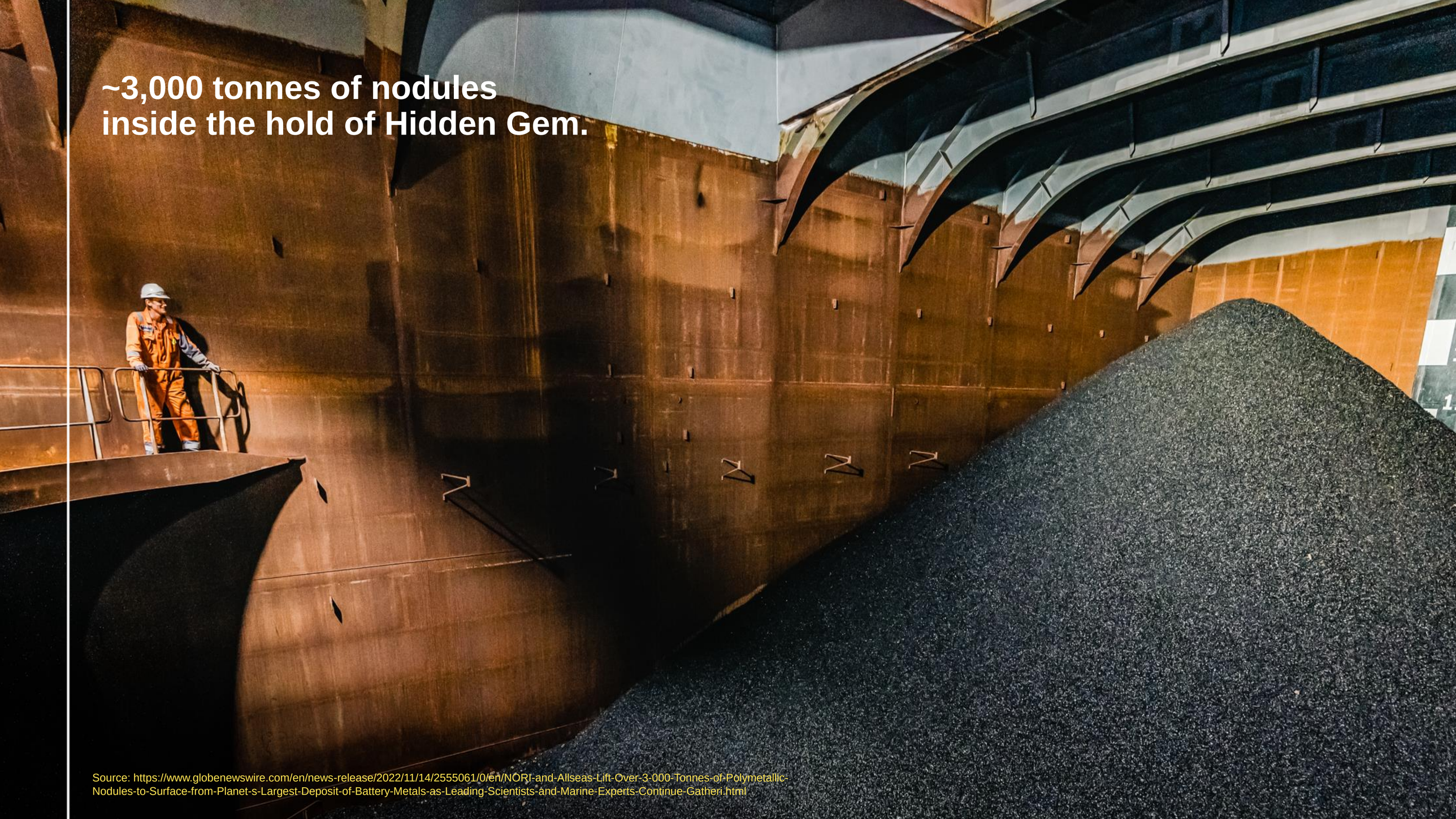
PILOT COLLECTOR SYSTEM TEST PROGRAM IN 2022

January	Riser acceptance test
February	Thruster re-lift, dockside vessel commissioning, review of nodule offloading & handling test program
Feb 7	LARS load test
Feb 28–Mar 3	Thruster installation
March 2–9	Collector wet function tests in outer harbor
March 12–17	Hidden Gem dynamic positioning trials
March 18–28	Collector drive test in the North Sea
April 6–11	Deep-water test in the Atlantic
April 21–24	Riser deployment test
April 22–May 3	Jumper deployment and connection test
May 3–June 29	Transit to Mexico
June 29–	Mobilization
ENVIRONMENTAL IMPACT MONITORING CAMPAIGN	
2021-2022 July 8–15 July 15 Sept 7 Sept-Dec	EIS, EMMP & revisions submitted to ISA Mobilization Pre-collector test survey ISA recommendation to proceed Pre, during, post environmental surveys
PILOT TRIALS IN NORI-D	
Sept-Dec	Integrated collector test ~4.5k wet tonnes collected, over 3k wet tonnes brought to surface

TMC pilot collection system test.

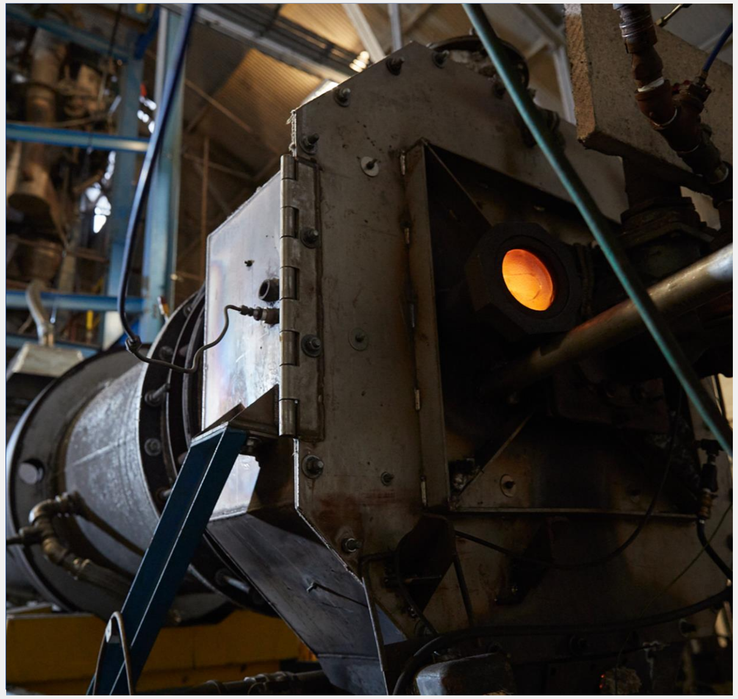
Video available at: https://vimeo.com/778303976?share=copy

~3,000 tonnes of nodules inside the hold of Hidden Gem.



Source: https://www.globenewswire.com/en/news-release/2022/11/14/2555061/0/en/NORI-and-Allseas-Lift-Over-3-000-Tonnes-of-Polymetallic-Nodules-to-Surface-from-Planet-s-Largest-Deposit-of-Battery-Metals-as-Leading-Scientists-and-Marine-Experts-Continue-Gatheri.html

Onshore, we have demonstrated we can turn nodules into manganese silicate and NiCuCo alloy & matte…



Calcining nodules at FLSmidth's facilities in Whitehall, Pennsylvania.

Smelting nodules in an Electric Arc Furnace at XPS facility in Canada. Electrode temperature 1450 degrees C. Smelting results in two products:

- Manganese silicate product
- NiCuCo alloy (intermediate)

Converting NiCuCo alloy into NiCuCo matte (intermediate) at the same XPS facility.

Matte pour post converting. End-product is NiCuCo matte.

…and signed a binding MoU with PAMCO to explore processing at existing RKEF facility in Japan, in line with TMC capital-light strategy.

Signed non-binding MoU with Pacific Metals Company (PAMCO) of Japan in November 2022 to evaluate the processing of 1.3 million tonnes per year of wet nodules.

- PAMCO has been smelting nickel since 1965 at its Hachinohe facility[1], and is well-suited to deploy TMC's near-zero solid waste flowsheet
- A 22-tonne sample of nodules collected during last year's successful integrated collection system test has already been offloaded
- PAMCO will use the sample to estimate the cost of processing polymetallic nodules at Hachinohe on a dedicated rotary kiln-electric arc furnace (RKEF) processing line and produce two products:
  - Nickel-copper-cobalt alloy, an intermediate product used as feedstock to produce lithium ion battery cathodes
  - A manganese silicate product used to make silico-manganese alloy, a critical input into steel manufacturing
- Capex and modifications expected to be minimal, in another example of TMC's capital-light strategy
- PAMCO is also evaluating the feasibility of a new processing facility to convert nickel-copper-cobalt alloy into an upgraded matte product

PACIFIC METALS CO., LTD.

Hachinohe facility

1. https://www.pacific-metals.co.jp/en/corporate/history.html

NORI-D Project: Pre-Feasibility Study (PFS) elements are coming together in advance of application for an exploitation contract.

- **Significant progress has been made on PFS work, with finalization expected in 1H 2024 in advance of application for an exploitation contract for the NORI-D area following the July 2024 meeting of the International Seabed Authority (ISA).**
- **Key focus of the PFS is to deliver a robust operations plan that meets production and environmental performance targets which is profitable through commodity cycles, providing a clear picture of project economics and potential reserves**

COMPLETED

PFS offshore progress

- Allseas: test mining and delivery of high quality environmental and production data
- Allseas: Mining Plan on Project Zero analyzed. Focusing on scenario of 3 million wet tonnes per year (3mpta) for Hidden Gem
- Project Zero definition and application strategy

PFS onshore progress

- PAMCO: have analyzed 22 tonne sample of nodules, validating that nodules can be tolled through their facility producing intermediate products that align with TMC's specifications

UPCOMING

PFS est. completion: 1H24

- In February 2023, TMC announced it had engaged Bechtel to support the NORI-D exploitation contract application including PFS work
- Binding agreements to include work programs from offshore / onshore partners (namely Allseas and PAMCO) for key PFS inputs, expected before year end 2023

Exploitation Application*

- Certificate of Sponsorship
- Mining Plan
- Financing Plan
- Environmental Impact Statement
- Emergency Response and Contingency Plan
- Health and Safety Plan & Maritime Security Plan
- Training Plan
- Environmental Management and Monitoring Plan
- Closure Plan

*PFS informs sections highlighted in yellow in an application for an exploitation contract over the NORI-D area following the July 2024 meeting of the ISA

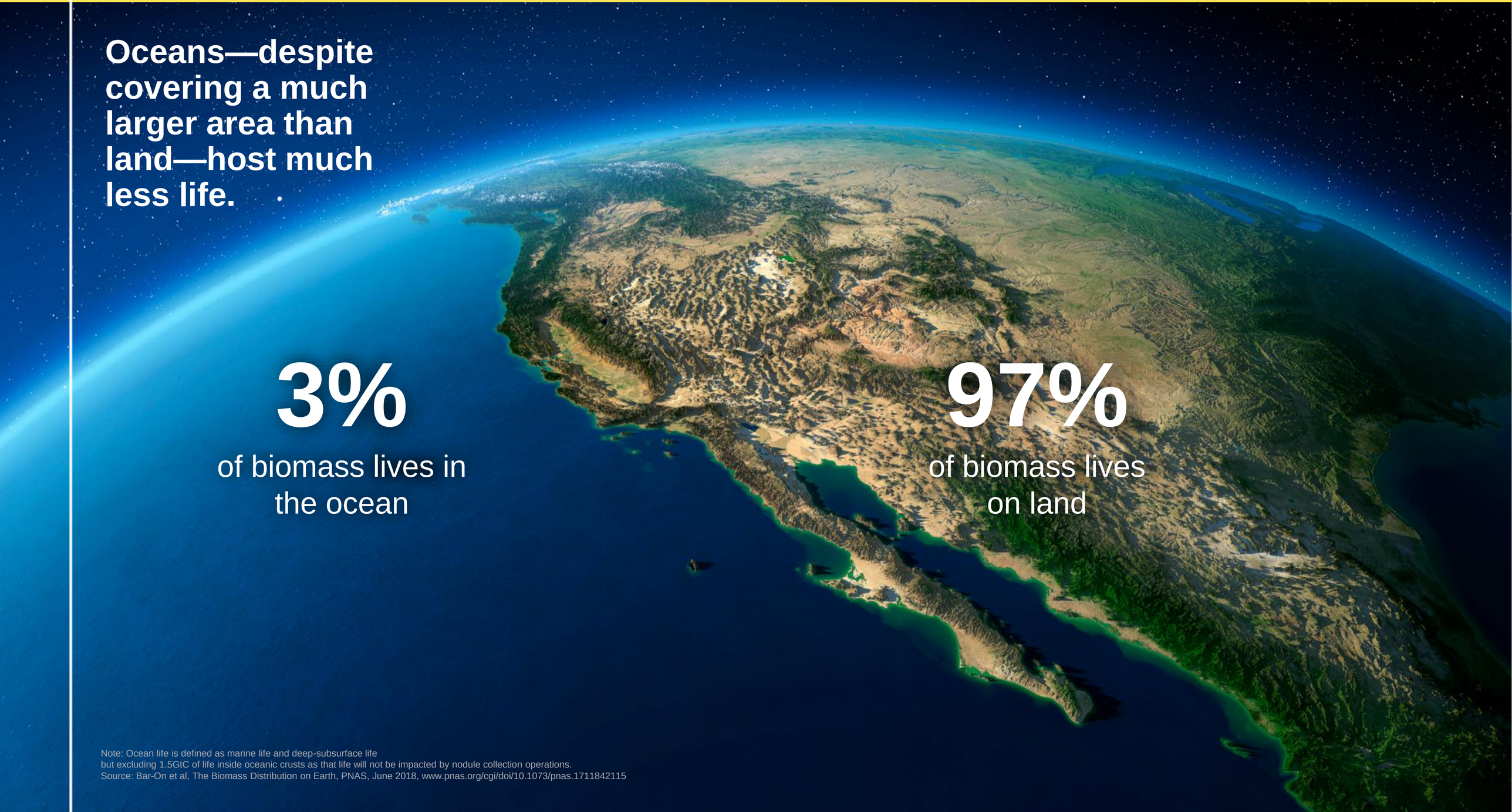
Key partners:

Allseas

PACIFIC METALS CO., LTD.

BECHTEL

Oceans—despite covering a much larger area than land—host much less life.



3%

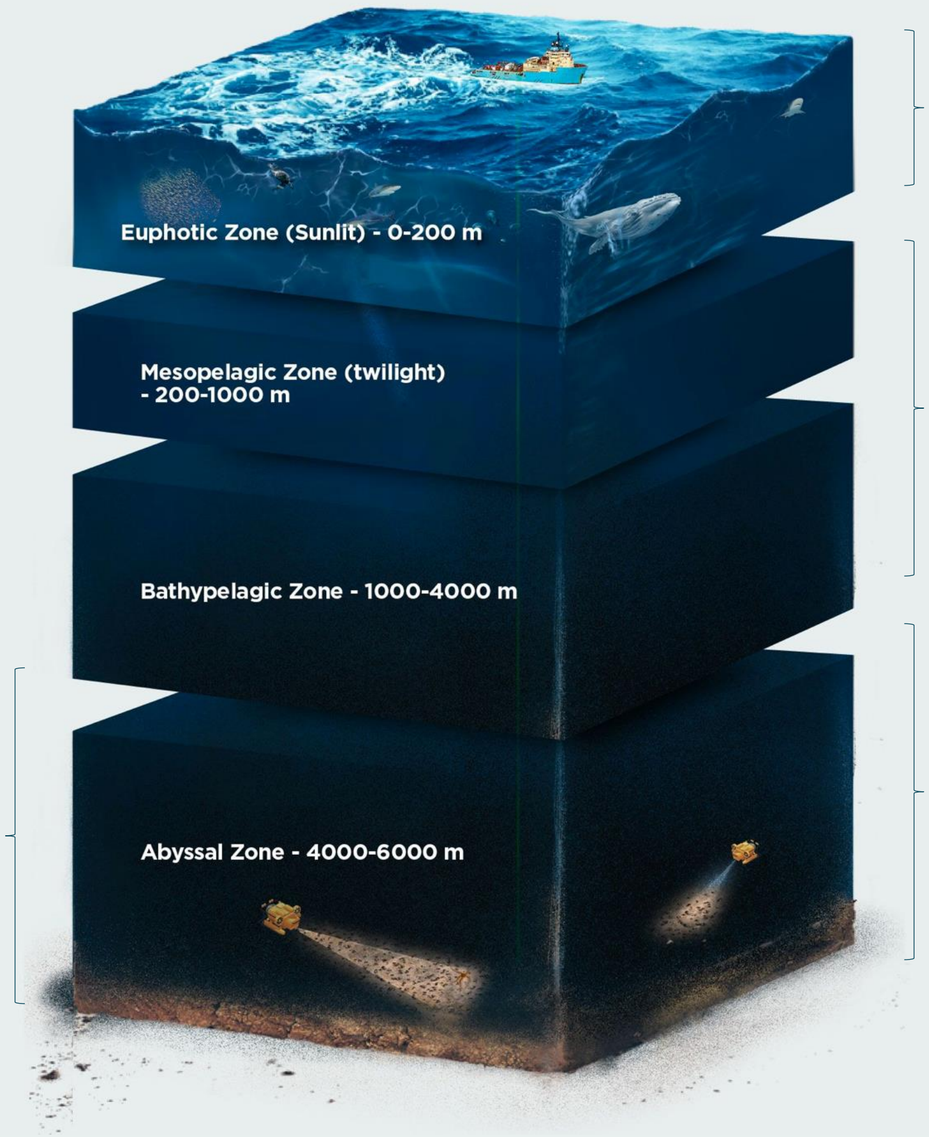
of biomass lives in the ocean

97%

of biomass lives on land

Note: Ocean life is defined as marine life and deep-subsurface life
but excluding 1.5GtC of life inside oceanic crusts as that life will not be impacted by nodule collection operations.
Source: Bar-On et al, The Biomass Distribution on Earth, PNAS, June 2018, www.pnas.org/cgi/doi/10.1073/pnas.1711842115

And the deeper you go, the less life you find.



28%
of ocean life

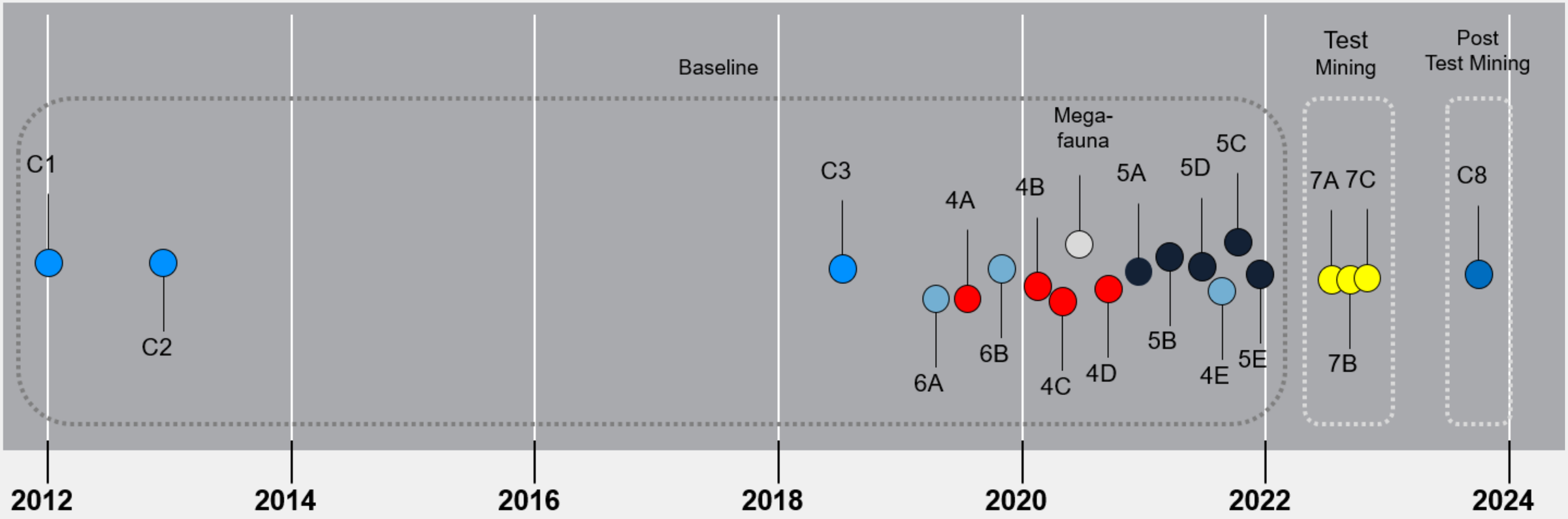
65%
of ocean life

7%
of ocean life

Abyssal plain is a vast sedimentary seabed, oxic to 2m. It has gentle depressions, troughs and ridges. There is intense pressure (5,700-8,500 psi) and no sound or light except the ones made by animals. This environment is food-poor and stable.

Note: Ocean life is defined as marine life and deep-subsurface life but excluding 1.5GtC of life inside oceanic crusts as that life will not be impacted by nodule collection operations.
Source: Bar-On et al, The Biomass Distribution on Earth, PNAS, June 2018, www.pnas.org/cgi/doi/10.1073/pnas.1711842115

NORI-D Project: Environmental Impact Statement (EIS) informed by data collected from 20 offshore campaigns over 11 years and ~$150 million cumulative spending.



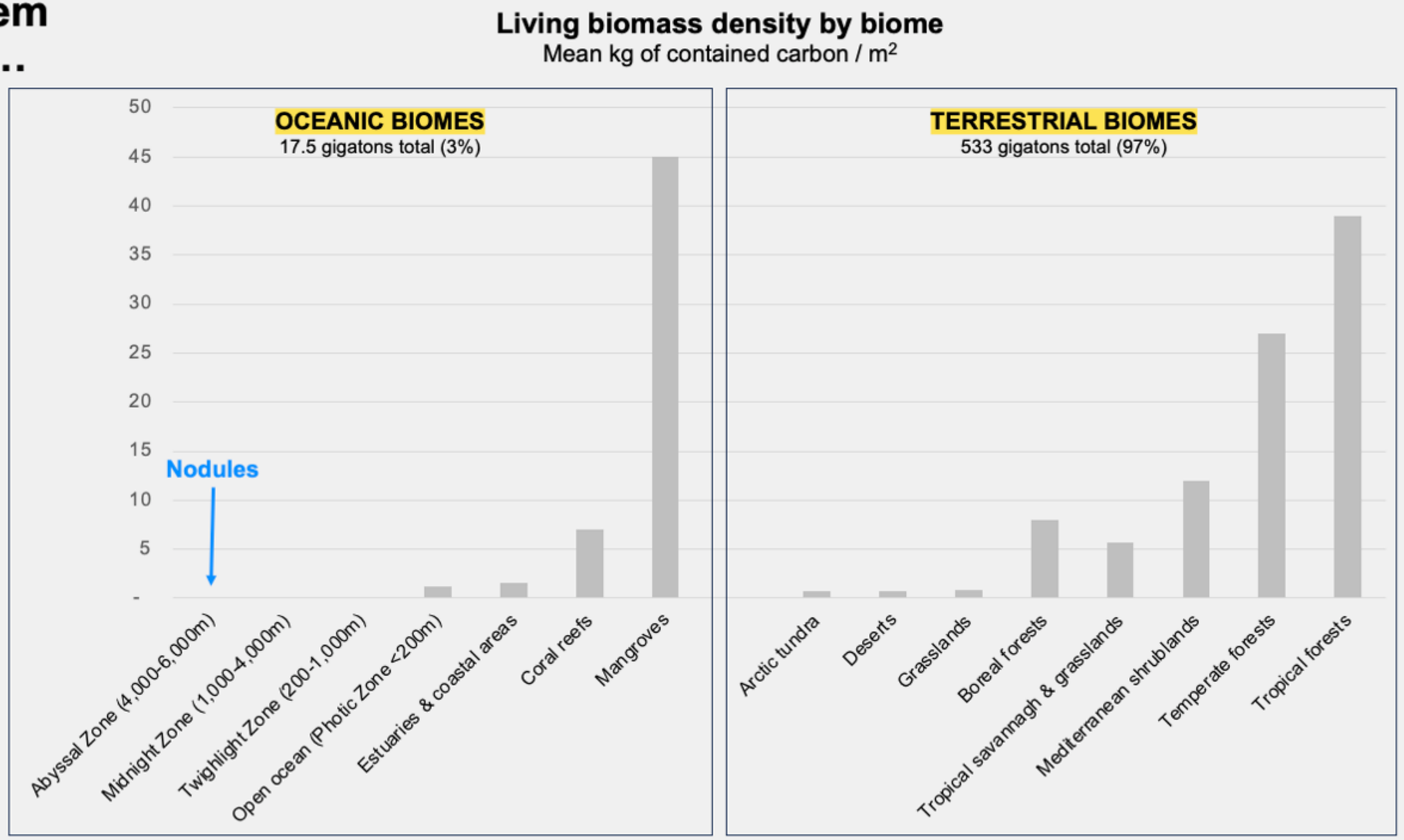
Biological and physical impacts: TMC has engaged many leading research institutions and companies, with over 200 terabytes of data collected in 2022 alone.

NORI-D Project: in final stages of Environmental and Social Impact Assessment (ESIA).

Covered by lifecycle assessment (LCA) & other published research – COMPLETED

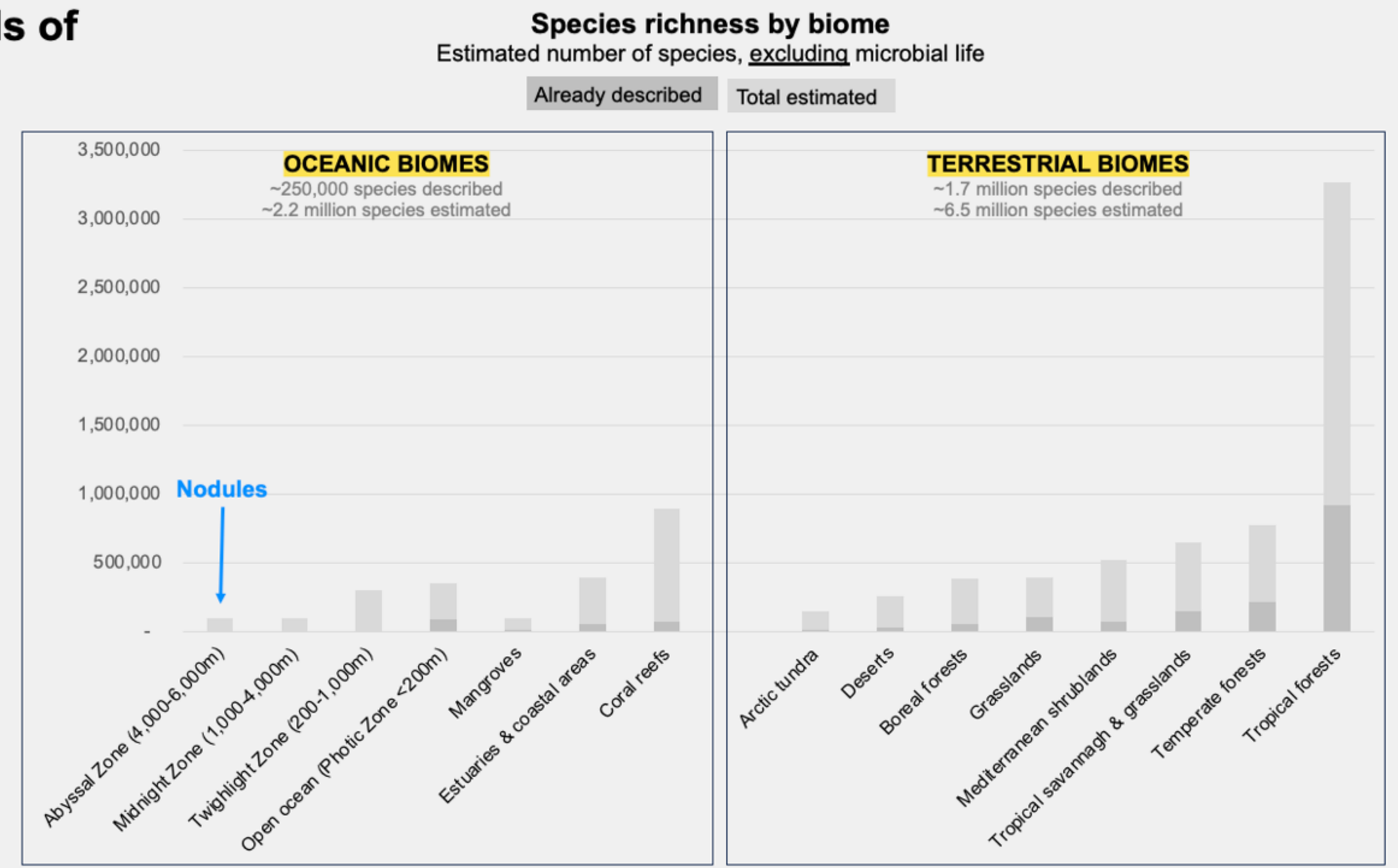
Covered by NORI-D ESIA – ONGOING

Nodules are found in an ecosystem with least life…



Source: Terrestrial biomass estimates from Houghton, R. A., and S. J. Goetz (2008), New satellites help quantify carbon sources and sinks, Eos Trans. AGU, 89(43), 417–418, doi:10.1029/2008EO430001; oceanic biomass estimates generated by GPT-4 with prompts to review peer-reviewed literature including on Bar-On YM, Phillips R, Milo R. The biomass distribution on Earth. Proc Natl Acad Sci U S A. 2018 Jun 19;115(25):6506-6511. doi: 10.1073/pnas.1711842115.

And low levels of biodiversity.



Source: Described species based on Dec 2022 IUCN Red List table; total species estimates based on Mora, C., Tittensor, D. P., Adl, S., Simpson, A. G., & Worm, B. (2011). How many species are there on Earth and in the ocean?. PLoS Biol, 9(8), e1001127.) Ballpark estimates for how described and total species break down by biome generated using Open AI's GPT-4 based on review of sources that included peer-reviewed literature, WWF's Global Ecoregions, IUCN Red List, scientific literature, GBIF, field guides, and conservation organizations

Biodiversity: NORI added over 75,000 biological occurrence records to public databases.

OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

UNESCO's OBIS database is the world's largest depository of marine biodiversity data. The OBIS ISA node contains:

- 99 data sets
- 131,994 occurrences
- Collected since 2004

NORI submitted an initial batch of benthic baseline data from two of its benthic baseline campaigns to the ISA's 'DeepData' platform, which has now been published to the OBIS-ISA node.

NORI is the largest contributor of biological occurrence data to DeepData and the OBIS ISA-node, providing almost 60% of the total records to the OBIS ISA-node.

Since publication on June 22, 2023, NORI's dataset has been downloaded in its entirety 875 times, and interrogations of specific taxa contained within the holdings has seen NORI-D occurrences downloaded over 64.4 million times.

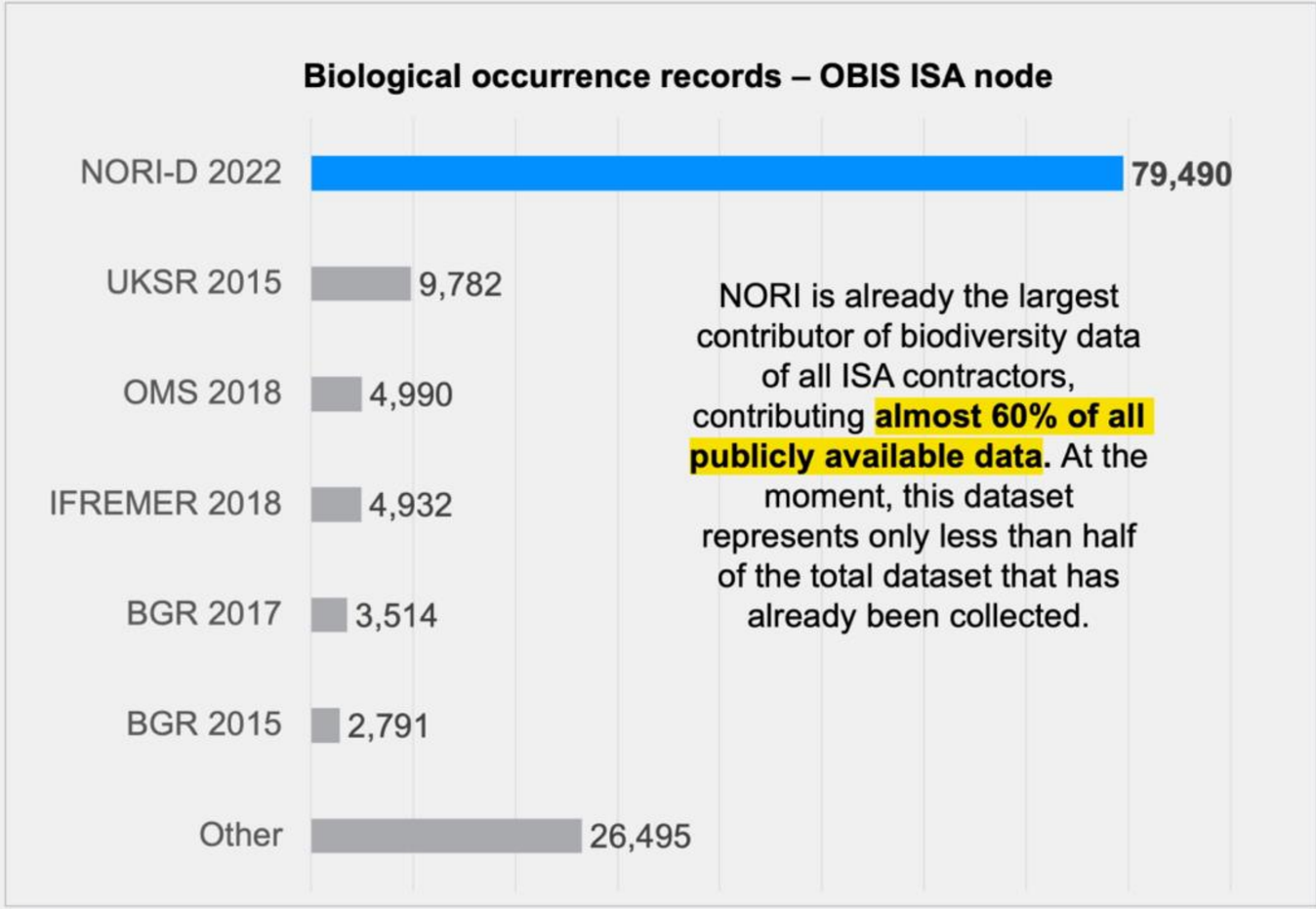
Data from remaining baseline campaigns and collector test to be submitted to ISA once fully collated and categorized.

875

Total downloads of NORI dataset since publication

+64.4 Million

Total downloads of NORI-D occurrences from interrogations of specific taxa



Best mitigation is conservation: 43% of the CCZ already set aside.

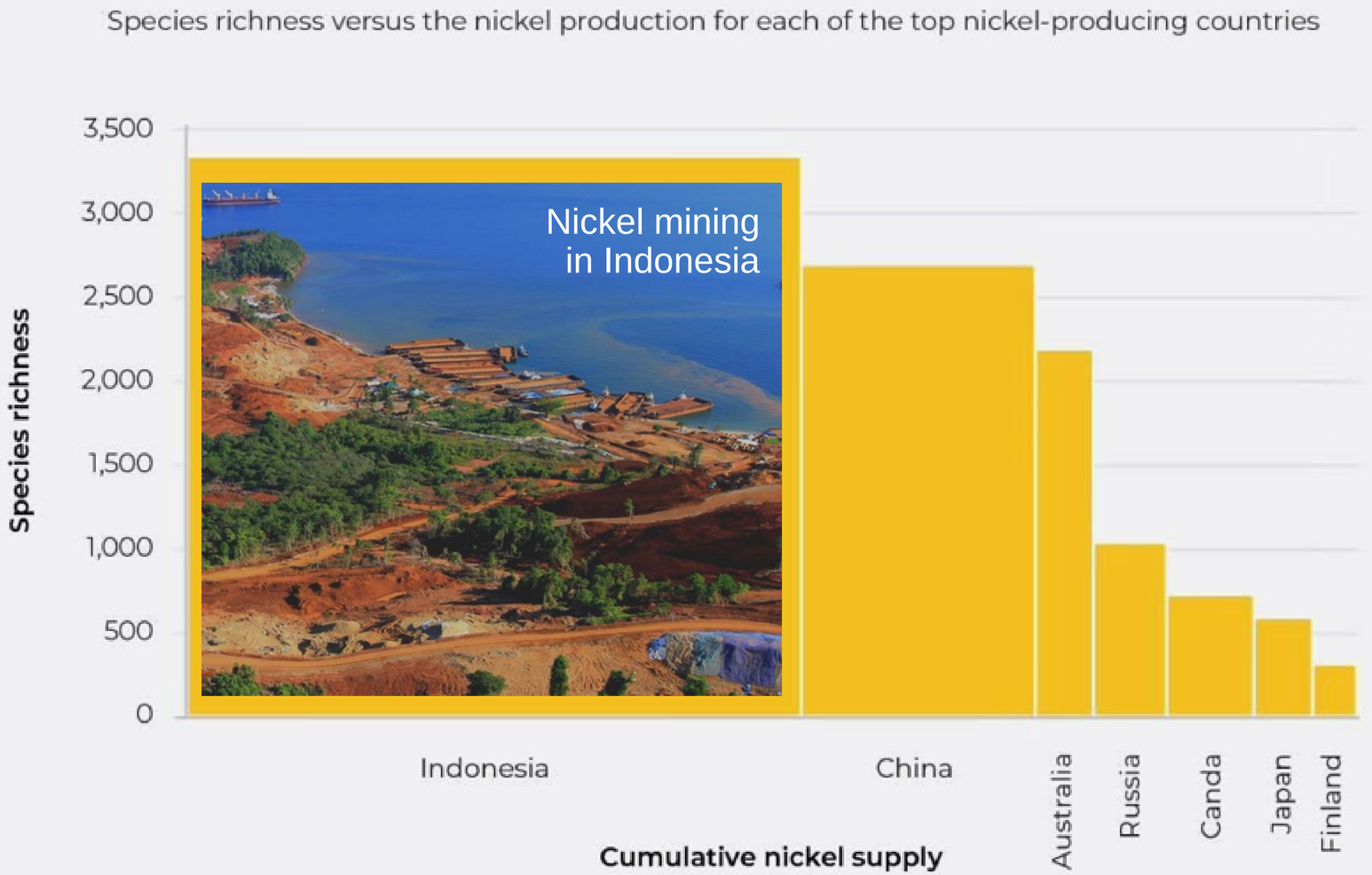
1.97m km²
under protection

1.28m km²
under exploration

The High Seas Treaty agreed in June 2023 aims to protect 30% of the oceans by 2030.

Report of the Chair of the Legal and Technical Commission on the work of the Commission at its twenty-sixth session: Decision of the Council of the International Seabed Authority relating to the review of the environmental management plan for the Clarion-Clipperton Zone, 10 December 2021, ISBA/26/C/58

Benchmark: Indonesia has the highest species richness as well as the highest nickel production.



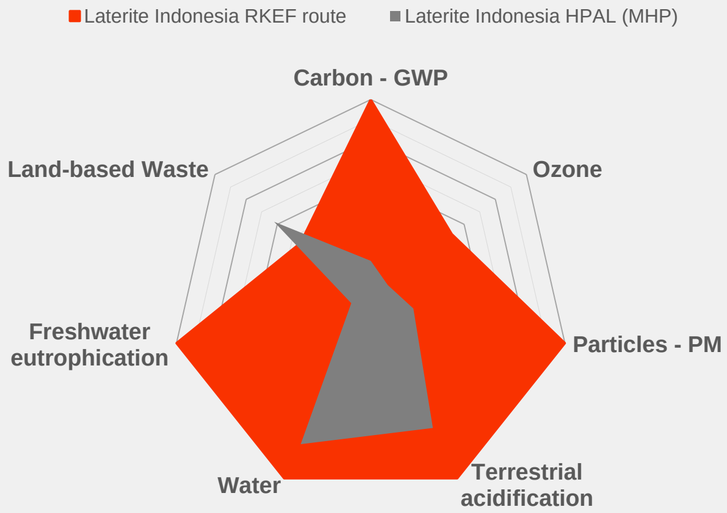
SOURCE: BENCHMARK MINERAL INTELLIGENCE AND MAP OF LIFE

BENCHMARK

Nickel from NORI-D could have dramatically lower lifecycle impacts than Indonesia…

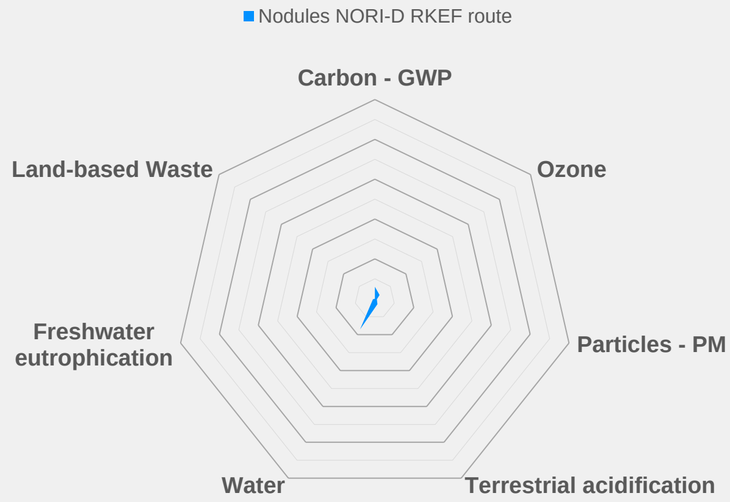
Indonesia - laterites

Impact of 1 kg nickel in nickel sulfate



NORI-D nodules

Impact of 1 kg nickel in nickel sulfate



~93% of global refined nickel production for 2022

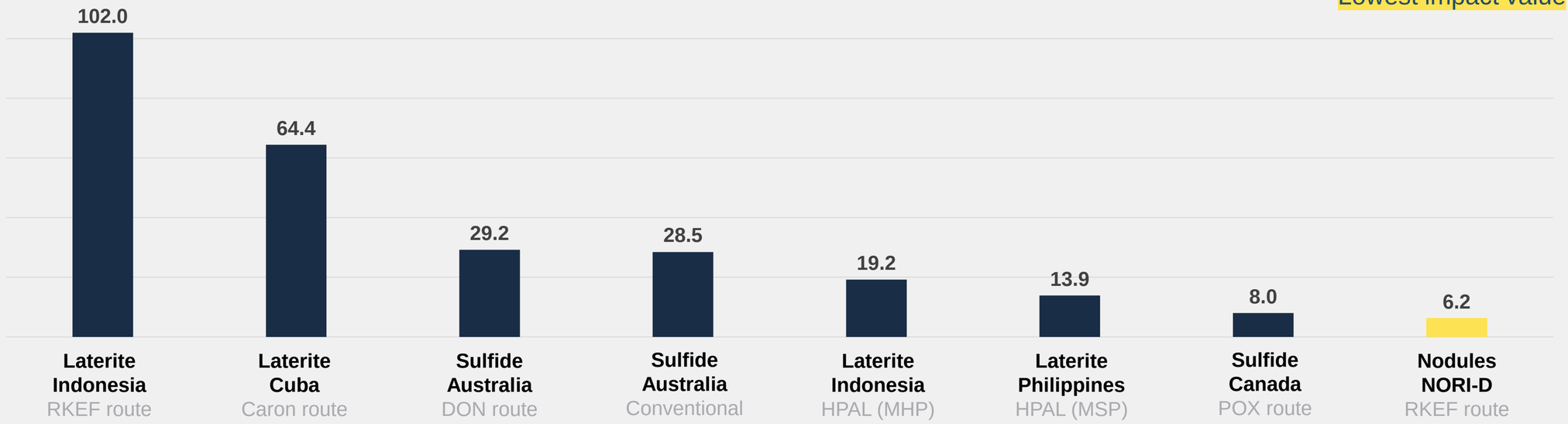
Impact category	Unit	Laterite Indonesia RKEF route	Laterite Cuba Caron route	Sulfide Australia DON route	Sulfide Australia Conventional	Laterite Indonesia HPAL (MHP)	Laterite Philippines HPAL (MSP)	Sulfide Canada POX route	Nodules NORI-D RKEF route
Global warming potential	*kg CO_2 eq*	102.0	64.4	29.2	28.5	19.2	13.9	8.0	6.2
Stratospheric ozone depletion	*mg CFC11 eq*	14.1	17.3	27.5	27.1	3.1	3.1	3.4	0.7
Fine particulate matter formation	*g PM2.5 eq*	1,187.0	31.7	43.1	42.9	262.0	160.4	39.5	9.2
Terrestrial acidification	*kg SO_2 eq*	0.96	0.09	0.13	0.13	0.69	0.53	0.13	0.03
Freshwater eutrophication	*g P eq*	91.0	9.5	75.8	76.4	9.1	5.2	2.9	1.0
Marine eutrophication	*g N eq*	5.5	0.1	2.3	2.3	-1.8	-1.3	0.2	-2.1
Water consumption	*m^3*	0.31	0.17	0.15	0.13	0.25	0.24	0.15	0.05
Land-based waste generation	*kg*	244	365	545	545	337	337	82	0
Marine waste generation*	*kg*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	137

* Nodule collection operations entrain underlying sediment, separate it from nodules and return to the seafloor within meters of its origin. For the purposes of the LCA, this entrained sediment has been defined as a marine waste stream.
Source: Independent lifecycle assessment (LCA) completed by Benchmark March 2023. Lifecycle from mine to end-product format (battery-grade nickel sulfate, cobalt sulfate, copper cathode and manganese silicate)
Nodules from NORI-D (RKEF route) also found to be the lowest impact option for copper. Cobalt from the DRC is lowest impact in GWP and water consumption; cobalt from NORI-D are lowest in all other assessed impact categories.

…including substantially lower CO_2e emissions.

Global Warming Potential
Kilogram of CO_2e emissions per kilogram of nickel in nickel sulfate

Lowest impact value



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Trawling today impacts 175x more seafloor every year than potential nodule collection tomorrow.

Global seafloor
361m km² = 4,800 squares

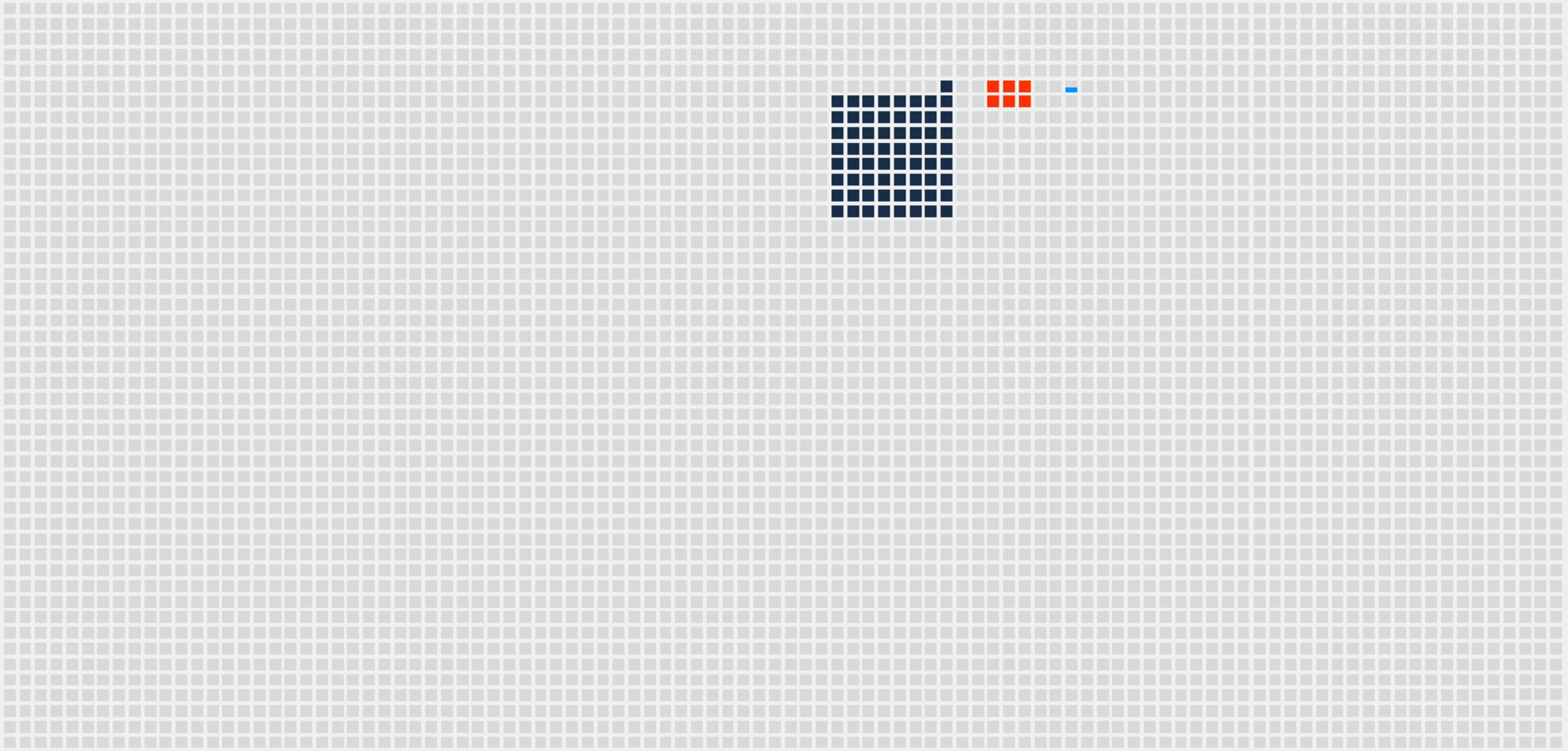
Current seafloor use

Trawling: annual seafloor use[1]
4.9m km² = 65 squares

Future seafloor use

Offshore wind 2050: seafloor use[2]
0.42 m km² = 6 squares

Nodule collection: annual seafloor use[3]
0.028m km² = 0.4 squares



[1] Estimate provided in Sala, E., Mayorga, J., Bradley, D. *et al.* Protecting the global ocean for biodiversity, food and climate. *Nature* **592,** 397–402 (2021). https://doi.org/10.1038/s41586-021-03371-z
[2] Estimate based on IEA (2021), Net Zero by 2050, IEA, Paris https://www.iea.org/reports/net-zero-by-2050.
[3] Assuming a scenario where 50% of the 1.68 million km² of nodule exploration area globally (international waters + EEZs) is exploited over a 30-year period, starting on the same day

Sediment plumes: activists' concerns vs. published research.

CONCERNS

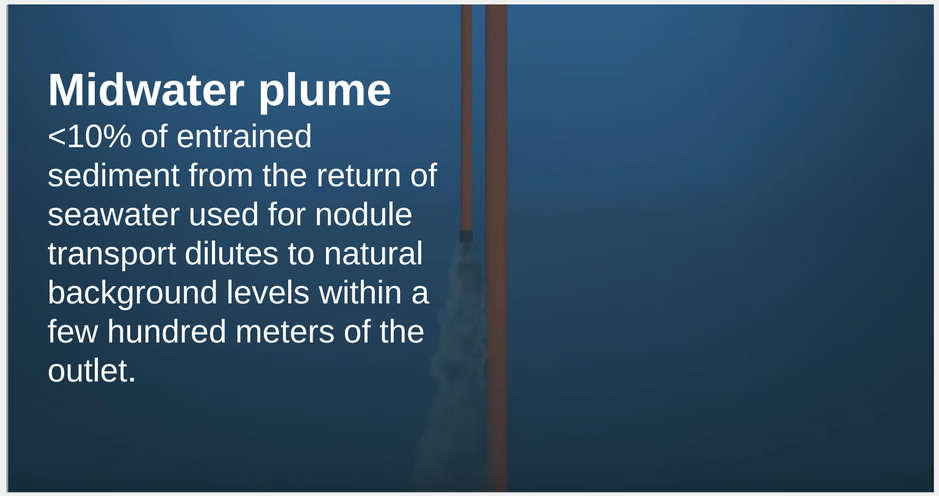
Deep-Sea Mining Statement
Signed by 769 people as of August 3, 2023
Organized by Deep-Sea Conservation Coalition

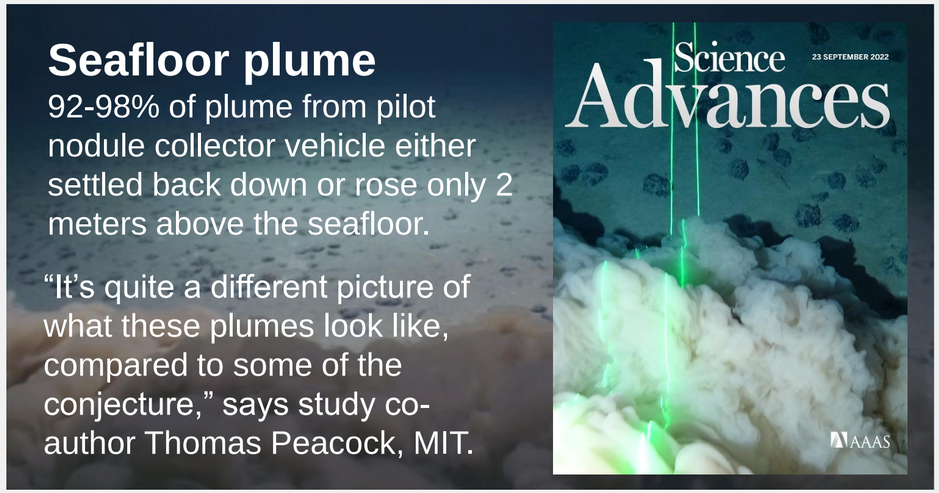
- "the production of large, persistent sediment plumes that would affect seafloor and midwater species and ecosystems well beyond the actual mining sites;
- the resuspension and release of sediment, metals and toxins into the water column, both from mining the seafloor and the discharge of mining wastewater from ships, detrimental to marine life including the potential for contamination of commercially important species of food fish such as tunas"

RESEARCH

Research published and field studies conducted in 2021-22

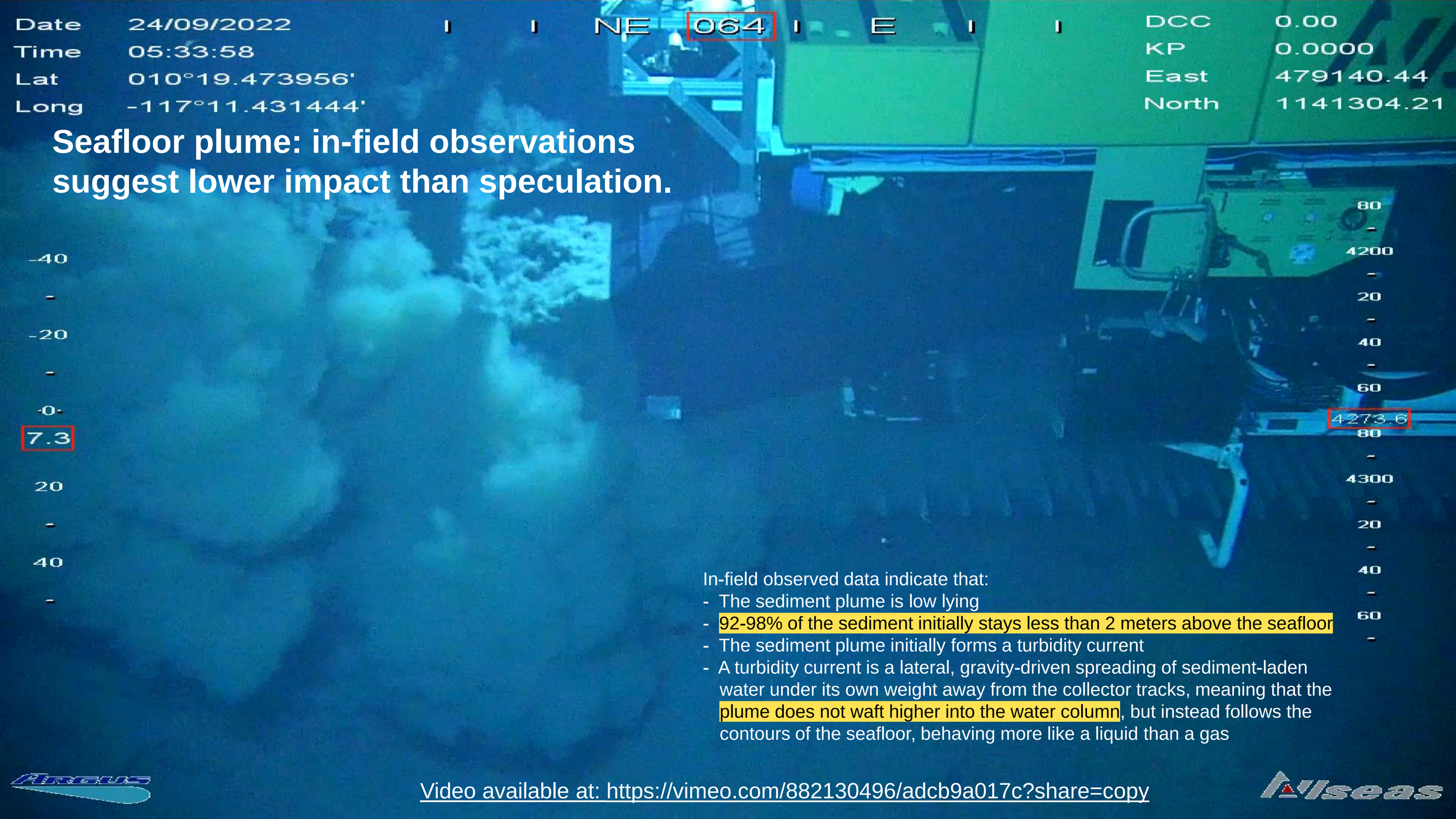
- Peer-reviewed research on seafloor and midwater plumes published by MIT and Scripps[1]
- Field observations of seafloor plumes conducted in May 2021 by BGR and GSR in their respective exploration contract areas in the CCZ[2]
- Plume modelling performed for TMC by DHI, one of the world's leading experts, using actual metocean data from NORI exploration area in CCZ and settling properties of sediment from NORI-D[3]





[1] Ouillon, R., Kakoutas, C., Meiburg, E., & Peacock, T. (2021). Gravity currents from moving sources. *Journal of Fluid Mechanics, 924*, A43. doi:10.1017/jfm.2021.654; Muñoz-Royo, C., Peacock, T., Alford, M.H. *et al.* Extent of impact of deep-sea nodule mining midwater plumes is influenced by sediment loading, turbulence and thresholds. *Commun Earth Environ* 2, 148 (2021). https://doi.org/10.1038/s43247-021-00213-8; https://news.mit.edu/2022/sediment-deep-sea-mining-0921 (Sept 2022).
[2] First test of a manganese nodule collector in around four kilometers of water: research consortium successfully completes monitoring of environmental impacts in the Pacific, BGR press release, May 12, 2021
[3] NORI Environmental Impact Statement for Collector Test Study, July 2021

Seafloor plume: in-field observations suggest lower impact than speculation.



In-field observed data indicate that:

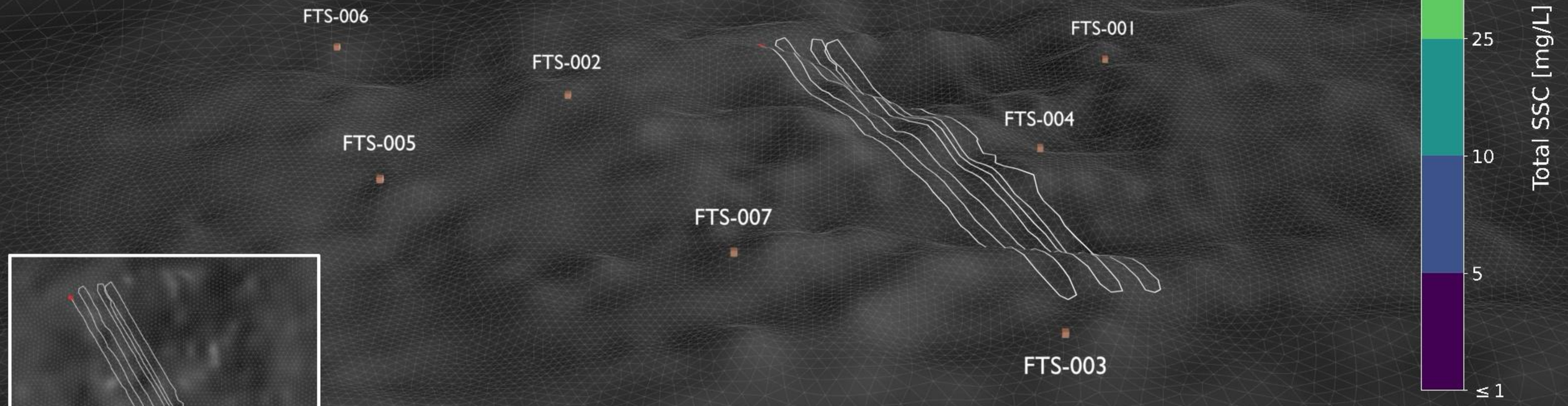
- The sediment plume is low lying
- 92-98% of the sediment initially stays less than 2 meters above the seafloor
- The sediment plume initially forms a turbidity current
- A turbidity current is a lateral, gravity-driven spreading of sediment-laden water under its own weight away from the collector tracks, meaning that the plume does not waft higher into the water column, but instead follows the contours of the seafloor, behaving more like a liquid than a gas

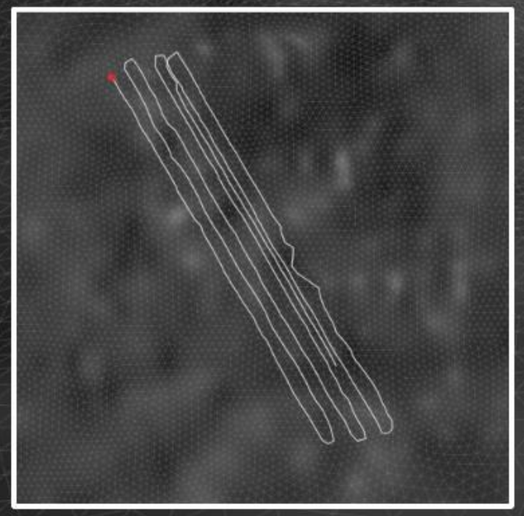
Video available at: https://vimeo.com/882130496/adcb9a017c?share=copy

Seafloor plume: in-field observed data and modeling are contradicting previously assumed speculation by opposition groups.

Following NORI's presentation at an ISA side event in November 2023, the Deep Sea Conservation Coalition (DSCC) changed their website wording on plumes to reduce their suggested scale of potential impact by ~100x

- Previous DSCC website wording: "plumes of sediment…possibly spreading tens OF thousands [note: 10,000+] of square kilometers beyond mining sites"
- New DSCC website wording: "plumes which could disperse over tens TO hundreds [note: 10–100+] of kilometers"





2022-10-20 10:00:00

Video available at: https://vimeo.com/851319010/79c7c9ff18?share=copy

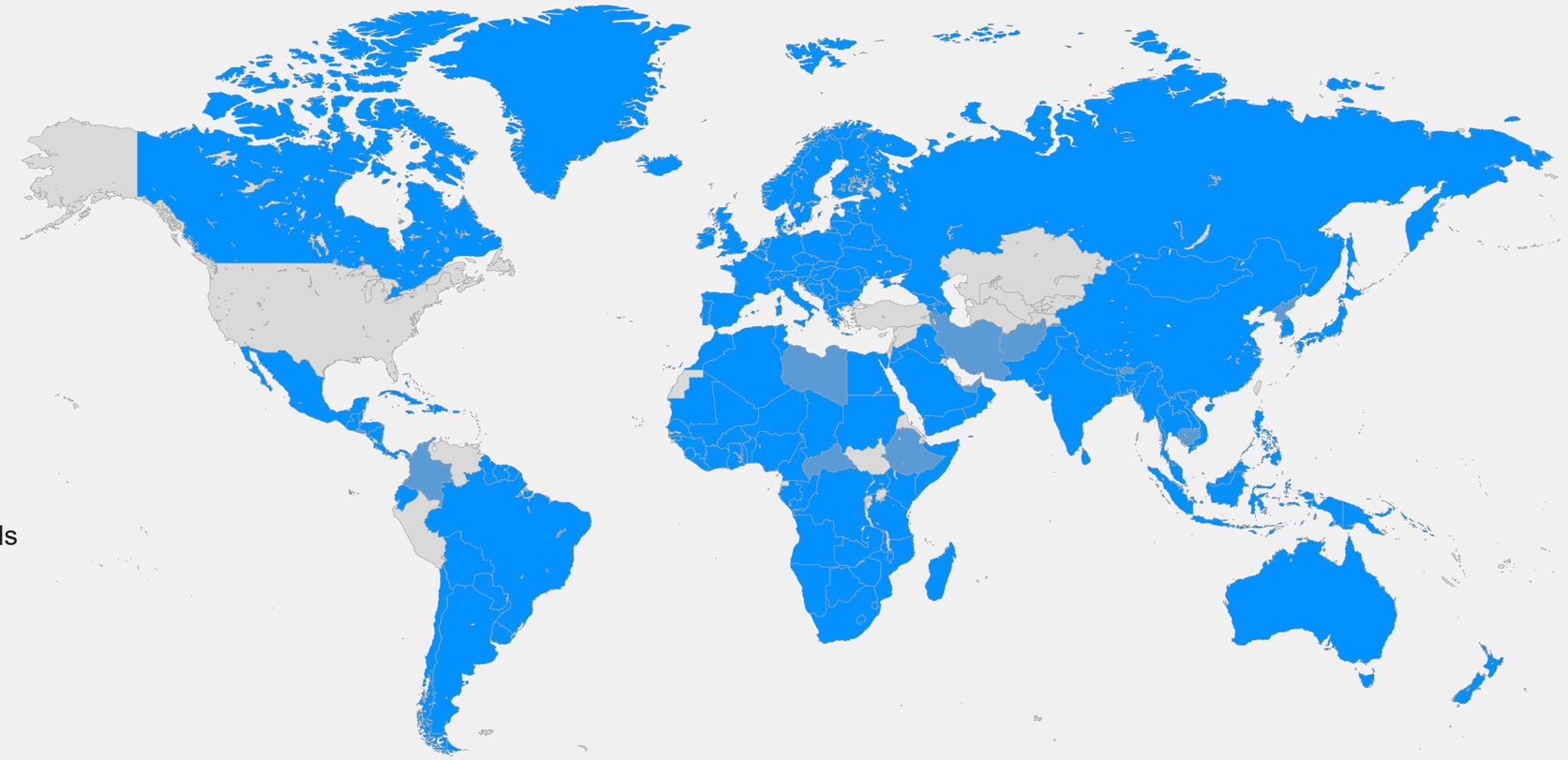
DHI

Transparency through cloud-based AI and digital twin: giving the regulator and key stakeholders eyes and ears into operations.

With our digital twin, a mix of sensors and cloud-based AI, we will optimize the environmental performance of operations by applying environmental constraints and limits to the mine planning process.

The iterative nature of an adaptive management system (AMS) also means that the predictive and protective capabilities of the AMS will gradually improve over time as more information enters the system.

Regulated by the International Seabed Authority established in 1994 by UNCLOS.



- The International Seabed Authority (ISA) was established in 1994 by the United Nations Convention on the Law of the Sea (“UNCLOS”) and regulates seabed minerals beyond national jurisdiction (‘the Area”).

- Issues Exploration Contracts to qualified applicants who are sponsored by a State Party to UNCLOS.

- 19 polymetallic nodule contracts issued to date to a mix of state-backed, state-owned and commercial contractors.

ISA making progress toward final regulations, while TMC subsidiary NORI reserves legal rights to submit application before final regulations are in place.

Article 15 of the 1994 Implementation Agreement
Empowers a Member State whose national contractor is 2 years away from being ready to lodge an application for the ISA Exploitation Contract to notify the ISA of upcoming application.

Consistent with NORI's rights under the United Nations Convention on the Law of the Sea (UNCLOS), and the 1994 Agreement relating to the Implementation of Part XI of UNCLOS (the Agreement), NORI reserves its right to submit an application for a plan of work for exploitation, which will be included as part of the application for an exploitation contract, and to have that application considered and provisionally approved pursuant to Section 1, Paragraph 15 of the Annex to the Agreement.

Timeline

2011	Fiji requests the ISA to prepare workplan for adopting the Mining Code
2012	ISA Secretariat prepares a workplan for adopting the Mining Code
2013	ISA produces technical study no. 11 "Towards the Development of a Regulatory Framework for Polymetallic Nodule Exploitation in the Area"
2015	ISA circulates 1st draft of the Mining Code
2017	ISA circulates 2nd draft of the Mining Code; agrees on July 2020 as target adoption date
2018	ISA circulates 3rd draft of the Mining Code
2019	ISA circulates 4th draft of the Mining Code
July 2020	ISA stated goal for adoption delayed due to COVID
July 2021	Government of Nauru (Sponsor of NORI) submitted a 2-year notice ISA adopts a roadmap for completing regulations by July 2023
Dec 2021	In-person ISA meetings resume in Jamaica, after a nearly 2-year hiatus
March 2022	ISA meetings to address regulations, financials and standards & guidelines
July/Aug 2022	ISA meetings to address regulations, financials and standards & guidelines
Oct/Nov 2022	ISA meetings to address regulations, financials and standards & guidelines
March 2023	ISA meetings to address regulations, financials and standards & guidelines
July 2023	ISA meetings to address regulations, financials and standards & guidelines
July 2023	Initial roadmap date for ISA to adopt final exploitation regulations (date has passed)
Nov 2023	ISA meetings to address regulations, financials and standards & guidelines
March 2024	ISA meetings to address regulations, financials and standards & guidelines
July 2024	ISA meetings, following which NORI expects to submit application for exploitation contract
Q4 2025	Est. production in NORI-D assuming 1-year application review and approval by the ISA

Status of the proposed ISA Roadmap for 2023 and 2024 available at https://www.isa.org.jm/wp-content/uploads/2023/07/ISBA_28_C_24-1.pdf

24 Member States out of 169 Members publicly expressed reservations but continue work given legal obligation to deliver ISA Mining Code.

Reservations have taken the form of supporting a ban, a moratorium or “a precautionary pause” on the start of the commercial exploitation of deepsea mineral resources.

Assembly

AFRICAN GROUP (47)
Algeria
Angola
Benin
Botswana
Burkina Faso
Cabo Verde
Cameroon
Chad
Comoros
Conga
Cote d’Ivoire
DRC
Djibouti
Egypt
Equatorial Guinea
Eswatini
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Morocco
Mozambique
Namibia
Niger
Nigeria
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Sudan
Togo
Tunisia
Uganda
Tanzania
Zambia
Zimbabwe

ASIA-PACIFIC (45)
Bahrain
Bangladesh
Brunei
China
Cook Islands
Cyprus
Fiji
India
Indonesia
Iraq
Japan
Jordan
Kiribati
Kuwait
Lao PDR
Lebanon
Malaysia
Maldives
Marshall Islands
Micronesia
Mongolia
Myanmar
Nauru
Nepal
Niue
Oman
Pakistan
Palau
Papua New Guinea
Philippines
Qatar
Republic of Korea
Samoa
Saudi Arabia
Singapore
Solomon Islands
Sri Lanka
Palestine
Thailand
Timor-Leste
Tonga
Tuvalu
Vanuatu
Viet Nam
Yemen

GRULAC (29)
Antigua and Barbuda
Argentina
Bahamas
Barbados
Belize
Bolivia
Brazil
Chile
Costa Rica
Cuba
Dominica
Dominican Republic
Ecuador
Grenada
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Panama
Paraguay
Saint Kitts and Nevis
Saint Lucia
Saint Vincent & the Grenadines
Suriname
Trinidad and Tobago
Uruguay

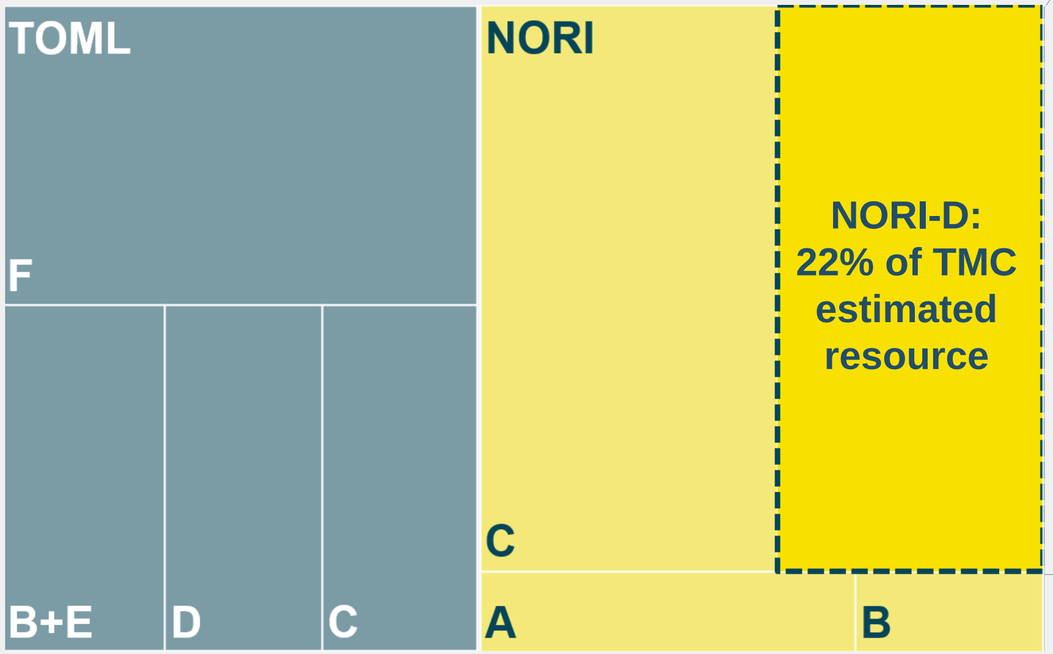
WESTERN EUROPEAN (23)
Australia
Austria
Belgium
Canada
Denmark
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Luxembourg
Malta
Monaco
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
UK

EASTERN EUROPEAN (23)
Albania
Armenia
Azerbaijan
Belarus
Bosnia and Herzegovina
Bulgaria
Croatia
Czech Republic
Estonia
Georgia
Hungary
Latvia
Lithuania
Montenegro
North Macedonia
Poland
Republic of Moldova
Romania
Russian Federation
Serbia
Slovakia
Slovenia
Ukraine

Sources: Lists of Council Members 2021-2026: https://www.isa.org.jm/authority/council/members; ISA Members Regional Groups: https://www.isa.org.jm/regional-groups

Based on SEC-compliant Initial Assessment, NORI-D project estimated at $6.8 billion NPV (est. $8.6 billion using current metal prices).

Estimated resource 1,634Mt (wet)[1]



NORI-D Financial Model[2]

$ billions unless otherwise noted

Estimated Prices	March 21 Initial Assess. w/CRU price forecast	Current prices, all other inputs unchanged	Increase
Nickel	$16,106/t	$17,985/t	12%
Copper	$6,787/t	$8,159/t	20%
Cobalt	$46,416/t	$33,420/t	-28%
Mn silicate	$4.53/dmtu	$5.15/dmtu	13%

Estimated Project economics—cumulative over project life			
Total revenue	**$95.1**	**$103.3**	**9%**
Nickel	44.0	49.3	
Copper	12.7	15.3	
Cobalt	10.4	8.0	
Mn silicate	27.2	30.4	
Total OPEX	**37.5**	**37.5**	**0%**
Total EBITDA	**57.3**	**65.6**	**14%**
EBITDA margin	*60%*	*63%*	*3 pts*
NPV	**$6.8 billion**	**$8.6 billion**	**+28%**

NORI-D NPV at various nickel prices (other assumptions held constant including other metal prices at current)		
	$45,000/t	$24.8 billion
	$35,000/t	$18.8 billion
	$25,000/t	$12.8 billion
	$15,000/t	$6.8 billion

General rule of thumb: every $10k/t change in nickel price equates to $6 billion change in NORI-D NPV

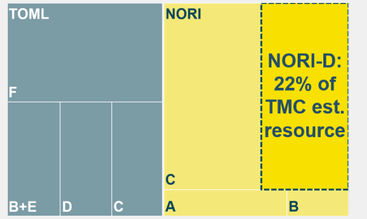
[1] Canadian NI 43-101 Resource Statement for full field financial model (internal DeepGreen development scenario).
[2] Canadian NI 43-101 and SEC Regulation S-K (Subpart 1300) Compliant NORI Area D Clarion Clipperton Zone Mineral Resource Estimate and associated financial model, AMC, March 2021. 'Current price' scenario is internal-only, as of November 6, 2023. NPV at January 1, 2021, assuming 9% discount rate. 'CRU Forecast' based on price projections from CRU Group used the 2021 Initial Assessment.

Key de-risking milestones ahead to unlock NORI-D project value.

Potential timing	H2 2022 / 2023	Following July 2024 ISA Meeting	Est. 2025	Est. 2025	Est. Q4 2025
De-risking milestones	**- Pilot Collection System Test - P.Zero commercial terms - Financing**	**NORI submits NORI-D application for an exploitation contract**	**ISA adopts final exploitation regulations**	**ISA grants NORI exploitation contract for NORI-D**	**NORI-D Project Zero starts production if application approved**
Risks potentially to be reduced upon achievement of the described milestones	- **Technical risk** reduced with technology pilots completed onshore and offshore (these technology pilots are now complete). - **Financing risk** reduced allowing to extend runway and project development to continue. - **Commercial risk** reduced with CAPEX and commercial terms for Project Zero production locked through binding agreements (note: not yet finalized).	- **Environmental risks** (perceived and real) reduced through completion and submission of the EIS and EMMP for the NORI-D Project - **Commercial risk** further reduced with completion of NORI-D Project PFS.	- **Regulatory risk** reduced as uncertainty around the final regulatory framework for the exploitation phase is eliminated as the final regulatory framework, including environmental standards is adopted by the ISA.	- **Permitting risk** eliminated with ISA granting exploitation contract for NORI-D.	- **Commercial and production risk** reduced with nodule collection and processing demonstrated at commercial scale.

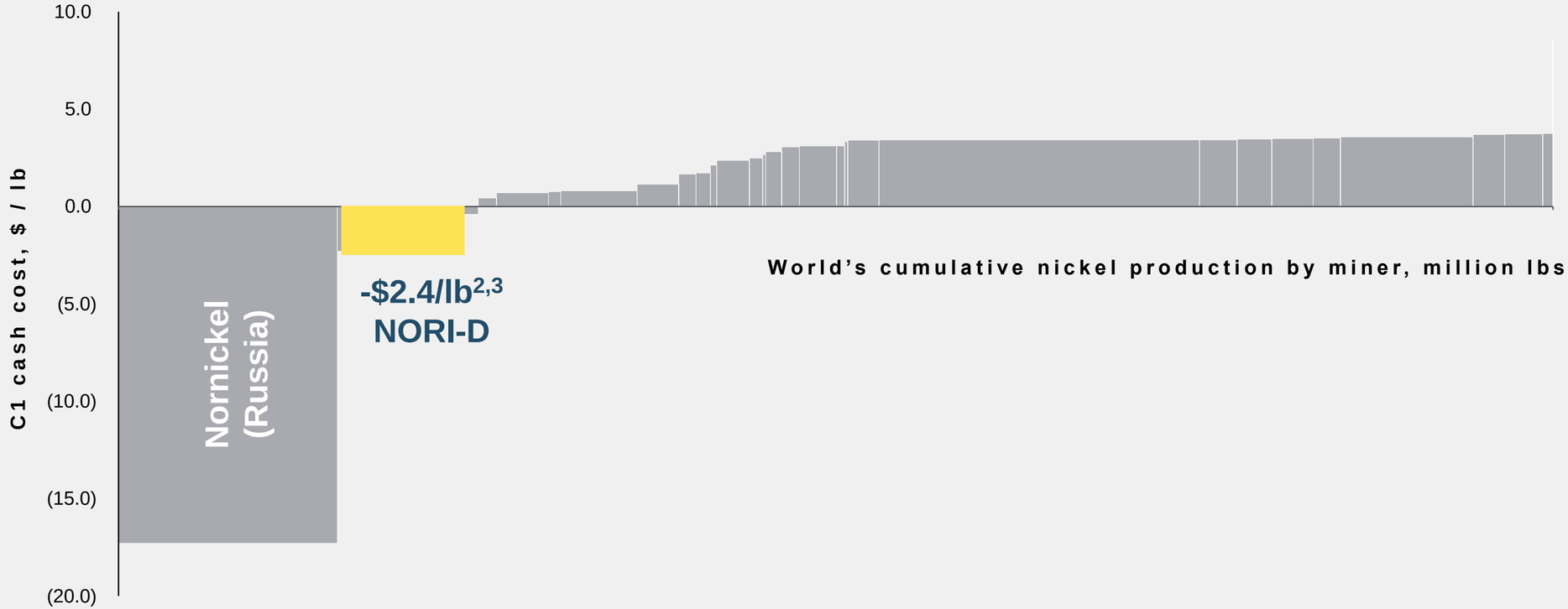
EIS – Environmental Impact Statement
EMMP – Environmental Management and Monitoring Plan

At steady state production, we could become the second lowest-cost nickel producer in the world.



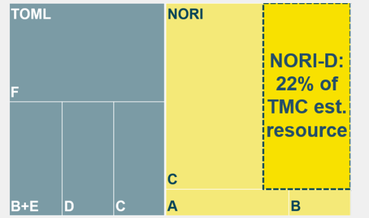
Nickel C1 cost curve on a by-products' basis[1]

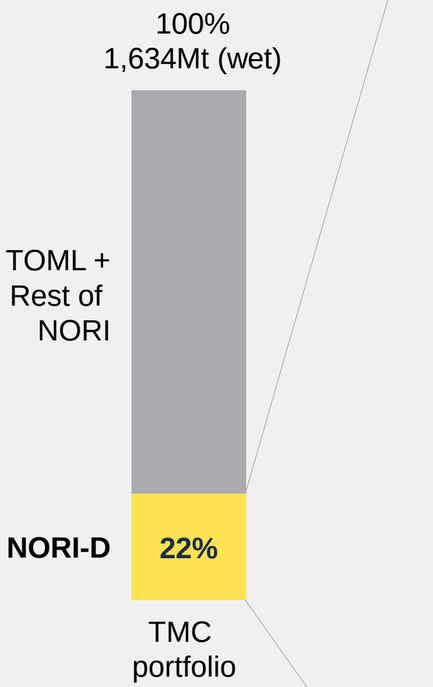
C1 Cash Cost represents all direct costs, including mining, processing, freight, SG&A minus revenue from by-products



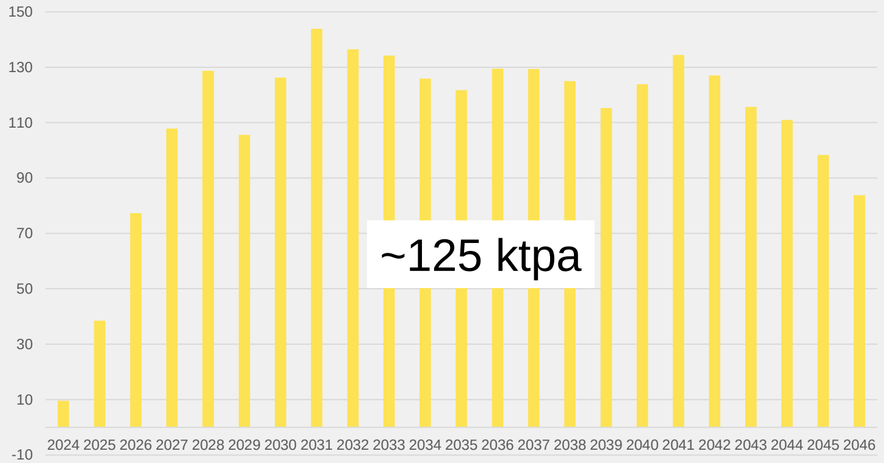
[1] Nickel C1 Cost Curve, Wood Mackenzie, August 2020.
[2] Average for the steady state years 2030-45.
[3] Canadian NI 43-101 Compliant Preliminary Economic Assessment (PEA) for NORI-D Area, AMC, February 2021.

NORI-D project: expected production volumes.

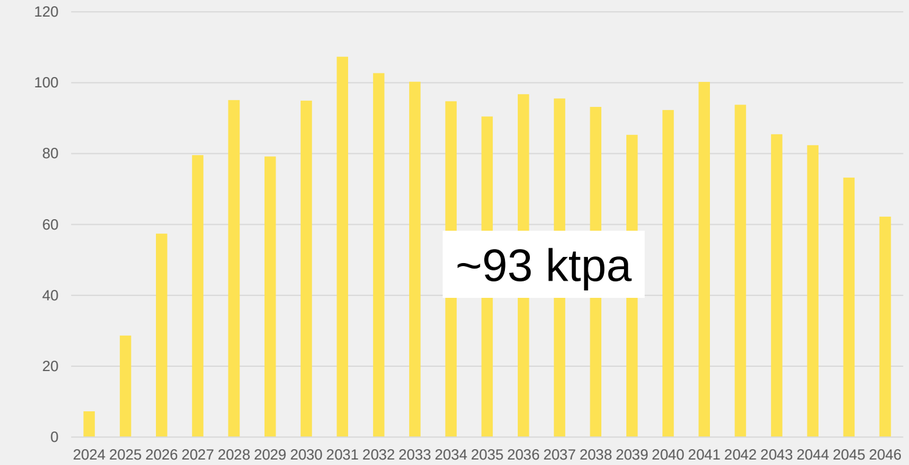




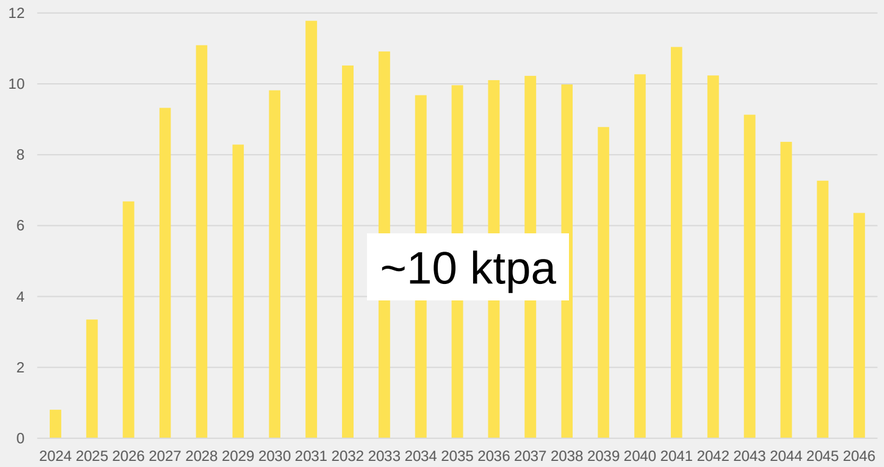
Nickel, kt



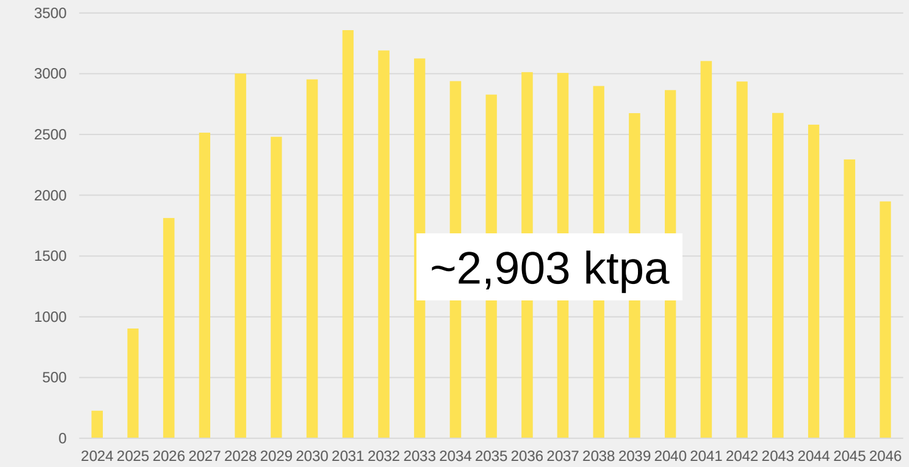
Copper, kt



Cobalt, kt



Manganese, kt



Note: Total NORI-D stable state production including both Project Zero and Project One, 2030-2045 average – based on March 2021 SEC Regulation S-K (Subpart 1300) Compliant NORI Initial Assessment.