

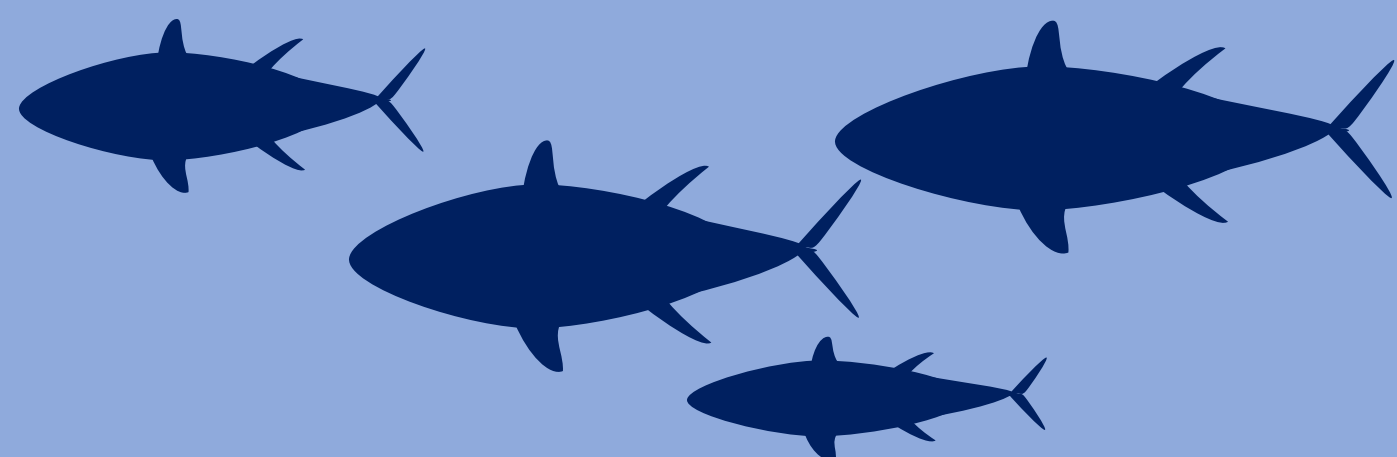
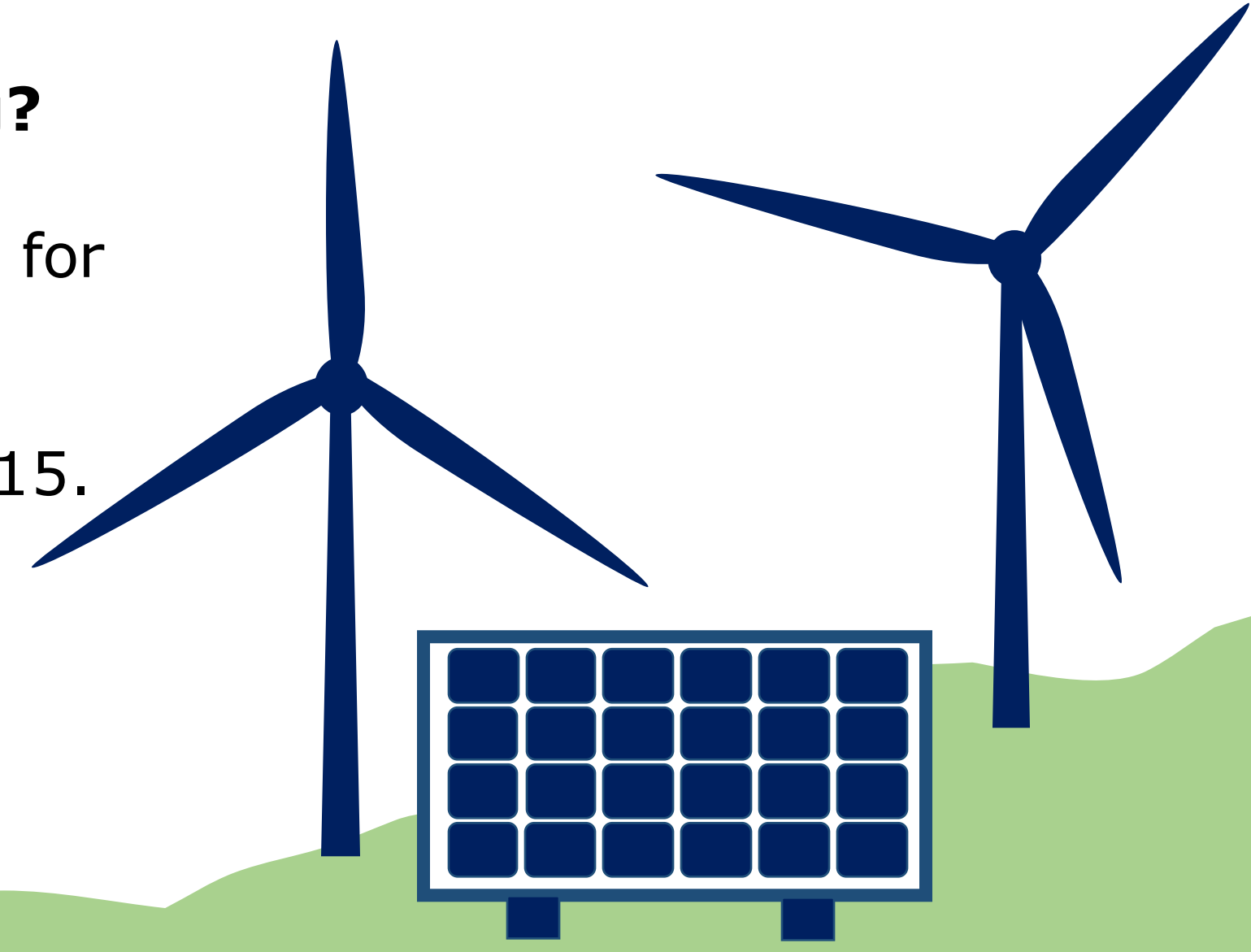
# Deep-sea mining - is it worth it?

## What is deep-sea mining?

Deep-sea mining is the process of retrieving mineral deposits from the deep-sea floor (below 200 metres). This area covers 64% of the planet and is a biodiversity hotspot.

## Why do we need deep-sea mining?

The transition from fossil fuels to renewable energies requires minerals for wind turbines, solar panels and batteries. The demand in 2050 is expected to be 10x higher than in 2015.



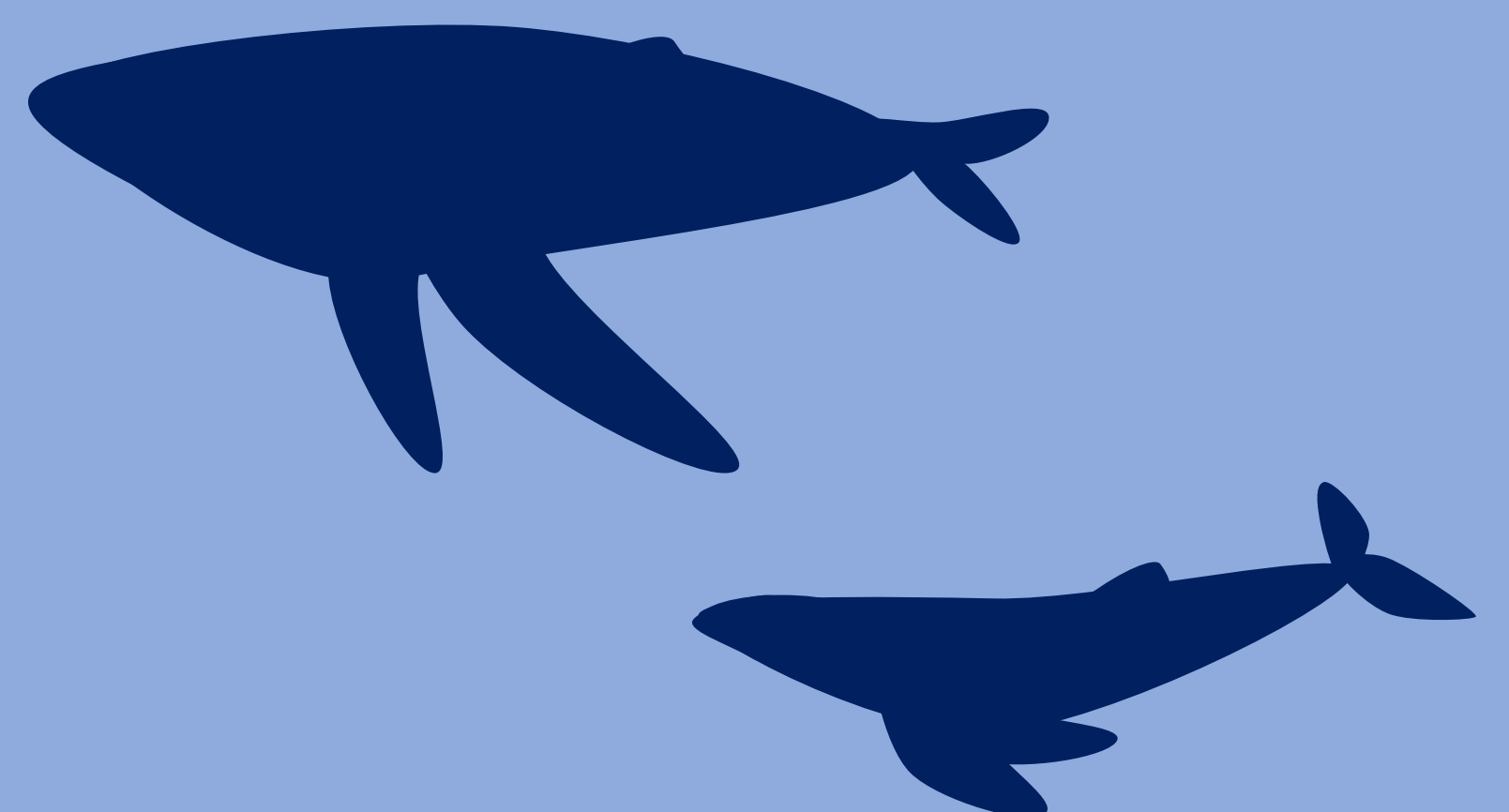
## Complexity:

The industry affects several SDGs. It supports goal 7 by exporting resources for clean energy. Plus, it is emitting less CO2 emissions than terrestrial mining, thus, goal 13 is being reached. Using already existing infrastructure of oil extraction is aiding the goal 9. Also, terrestrial mining has terrible working conditions and pollutes the land. Deep-sea mining releases the pressure for goal 15. Yet it can negatively impact goal 14 by polluting the water and causing possibly negative effects on biodiversity.



## Vibration and noises

Noise pollution and vibration from mining processes could disrupt migration and feeding patterns of fish schools and whales. This needs more research.



**Sediment plumes** arise from the mining of the crust for cobalt. Organisms who can be affected by the plumes are sponges and corals. The sediment can clog pores, which are crucial for the organisms' survival.

## Seafloor

The mining machinery damages the processed natural habitat significantly. The restoration of the seabed requires a long time and might be irreversible.

Three types of seafloor mineral deposits that can be extracted:

Seafloor massive sulphides from hydrothermal vents

Ferromanganese cobalt crusts

Polymetallic nodules

