DEEP-SEA MINING

BALANCING NEEDS AND ENVIRONMENTAL DAMAGE

40% - 77% **of Europe's clean energy metal needs by 2050 could be covered by recycling.**

3 of the main metals targeted in deep-sea mining (manganese, copper and nickel) are considered to be of **low supply risk** while cobalt is moderate.

Globally, as much cobalt is lost every year as is needed to equip up to **3 million** electric cars.

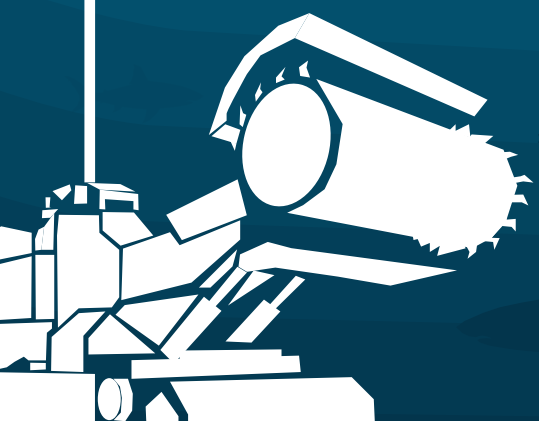
The current trajectory of efficiency gains in metal intensity through innovation means that **terrestrial mineral reserves will be sufficient** to meet the renewable technologies demand to realise 2050 Paris Agreement targets.

Terrestrial mining requires a small fraction of areas compared to those needed at the seabed and has a 4-stage mitigation hierarchy that cannot be applied at the deep sea.

The extraction process kills all life

60 - 70% of megafaunal species use nodules as an attachment point or shelter.

Nodules take **MILLIONS OF YEARS** to reform.



The deep sea is characterised by high biodiversity, thousands of rare and highly adapted species, unique habitats, vulnerable ecosystems, low metabolic rates and long life.

A 16-metre-wide robot gathering 400 tonnes of nodules per hour removes **100,000 tonnes from 10,000 km²** of seabed over 25 to 30 years, creating irreparable ecological damage.

Source: easac.eu
Visualisation: communicationworks.eu