

**catchgreen**

Powered by Biodolomer®

## **INC 3 Pre-event 12 November 2023**

***BIODEGRADABLE ROPES  
AND FISHING NETS***





A large, tangled fishing net lies on a sandy beach. The net is dark and appears to be made of a mesh material. The background shows a sunset sky with orange and yellow light reflecting on the water's surface. The overall scene is somewhat somber, suggesting the impact of marine waste.

An impact-driven solution to  
marine sector waste

*Replacing harmful nylon and  
polyethylene in fishing nets with a  
biodegradable biopolymer.*

## Biodolomerr®Ocean

- Suitable for marine applications
- Nets that are lost or dumped will sink to the bottom of the ocean
- Where they will disintegrate into biomass
- Without any toxins or microplastics

# Co-benefits



**Reduces the incidents and duration of ghost-fishing** – ALDFG will disintegrate into biomass within 2-5 years



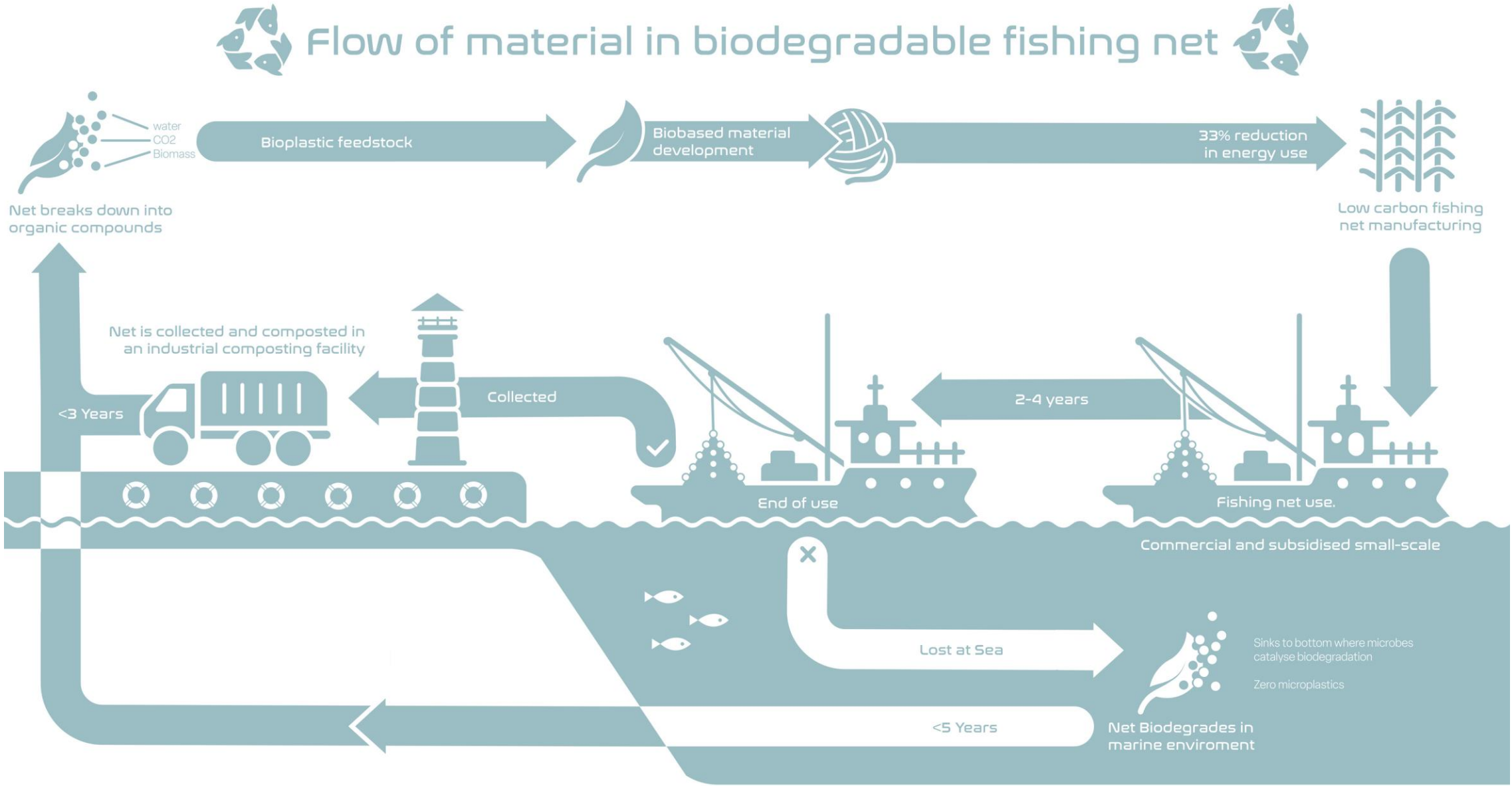
**Reduces the amount of microplastics in the ocean** – the nets will biodegrade without microplastics through weathering or degradation.



**Reduces the accumulation of plastics in landfills** – old nets can be disposed of at industrial composting facilities and turned into beneficial agricultural biomass.



# Sustainability



Tested for biodegradability in the ocean (SINTEF)

Tested for compostability on land (TUV OM Compost INDUSTRIAL)

# Material development



## **BIODOLOMER®OCEAN**

A mix of PBS (polybutylene succinate) and PBAT (polybutylene adipate terephthalate).

Offers the right balance between strength and flexibility.

Designed for mono-extrusion and the spinning of thread.

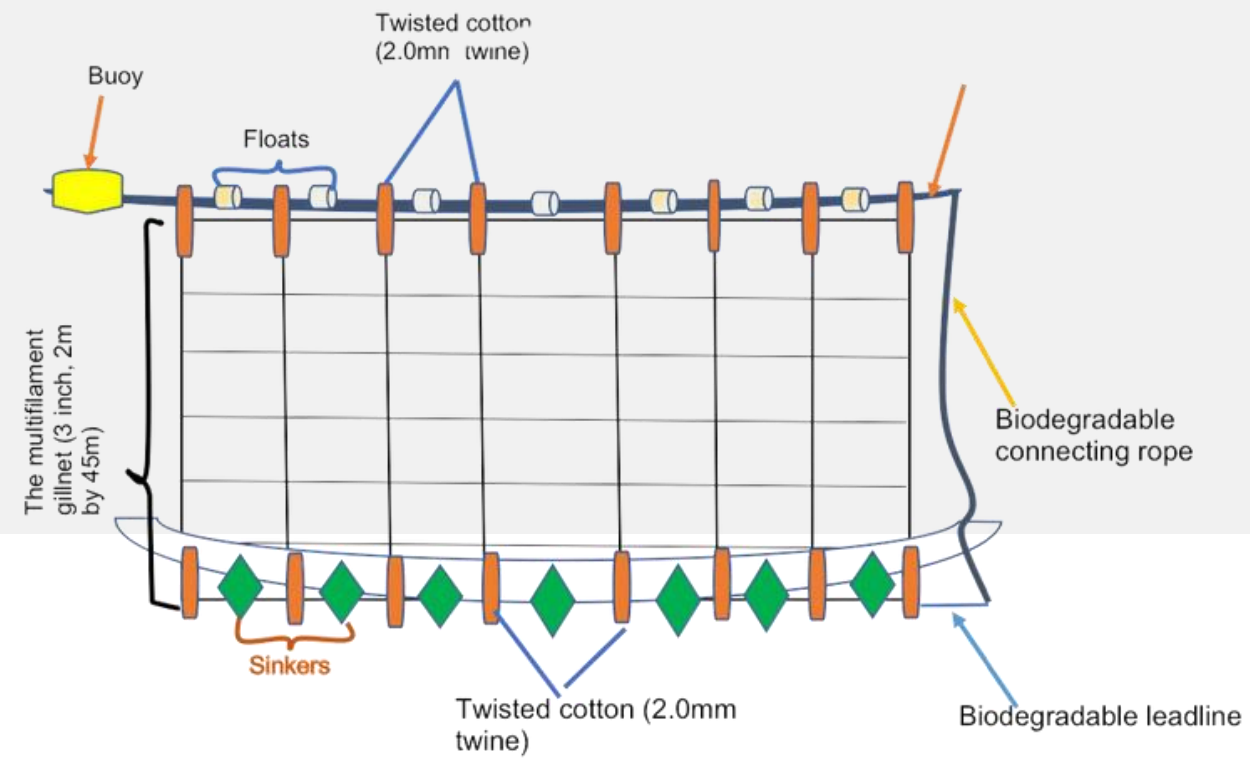
Used to manufacture various types of ropes and nets.

**Biodolomer®Ocean is manufactured in recognisable orange and turquoise to distinguish it from traditional fishing gear.**



# Piloting

## Gill nets



KMFRI is piloting Biodolomer® Ocean twine for modified gill nets.

- Replacing the headline and leadlines with biodegradable twine
- Replacing 50% of the plastics in the nets
- Reducing plastics on land and in the ocean.



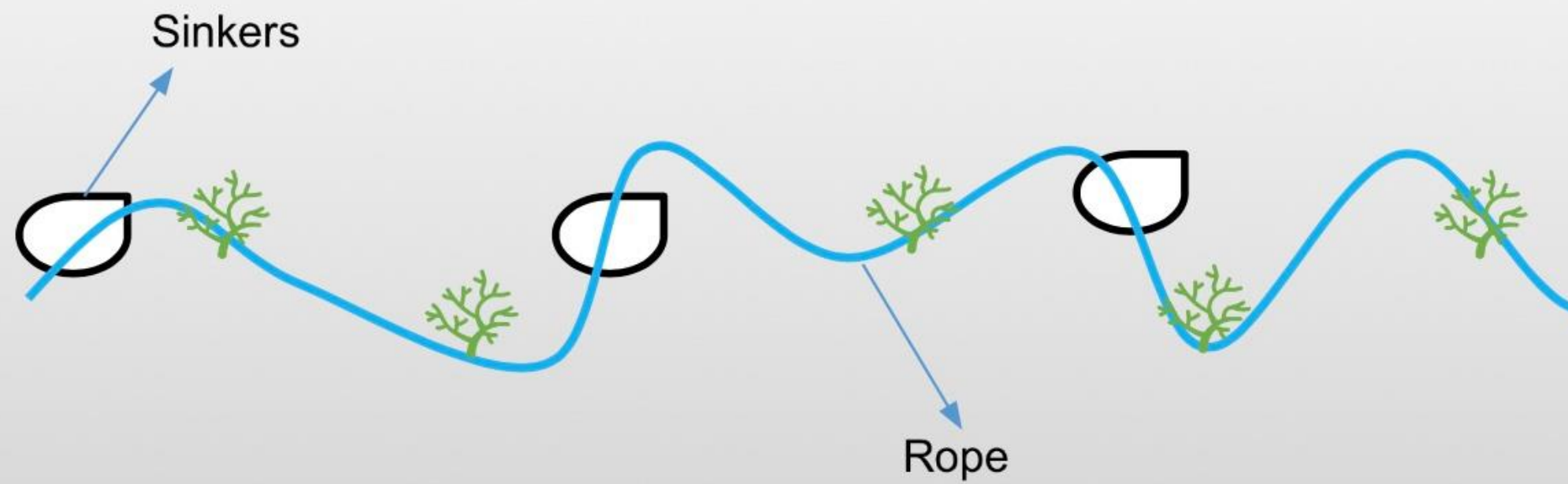
# Seaweed farming



KMFRI is piloting biodegradable ropes for seaweed farming:

- Replacing plastic ropes with biodegradable ropes.
- Comparing yield between the two ropes.
- Observing the biodegradation process.
- Measuring microplastics.
- Testing composting on land.

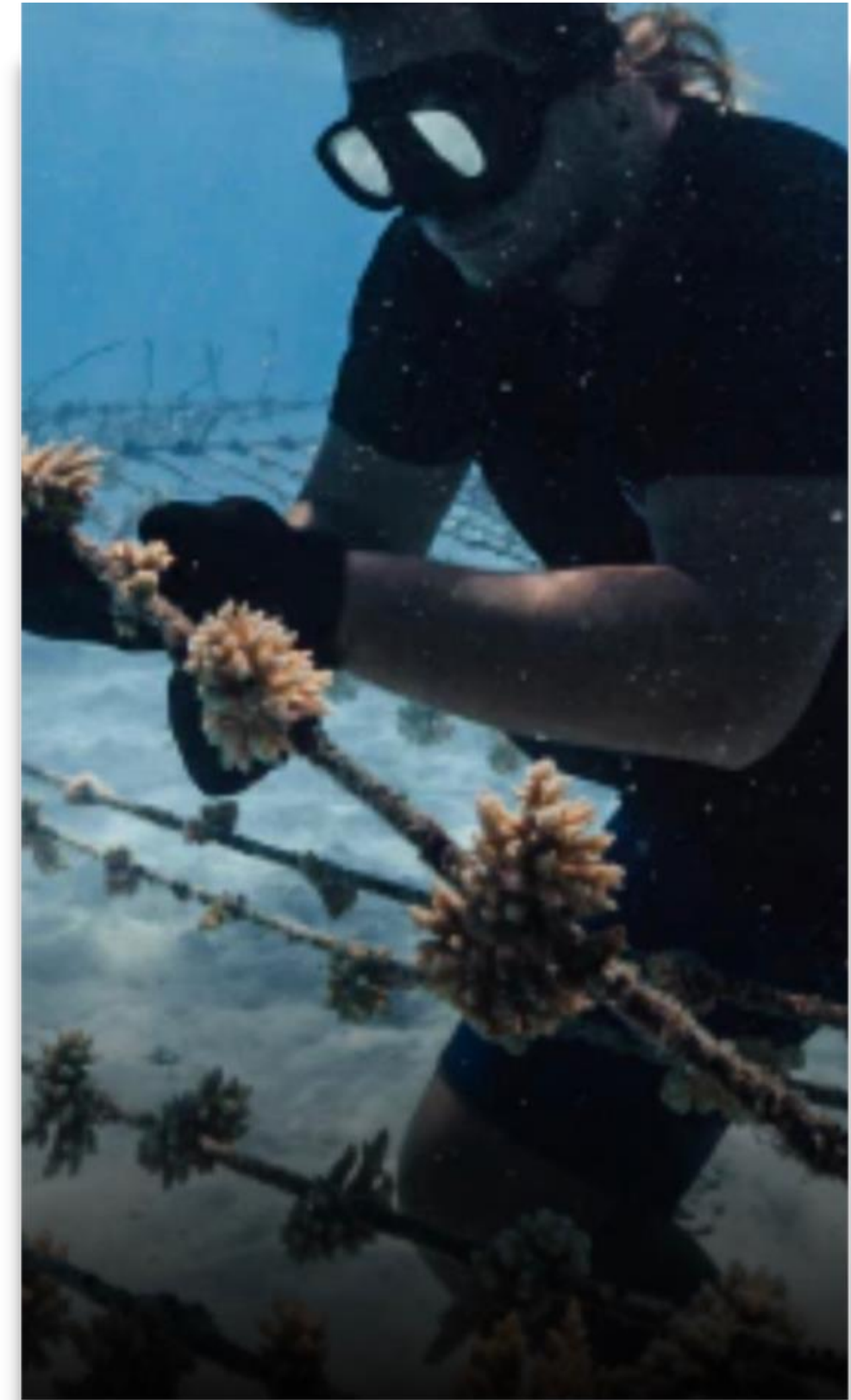




# Coral restoration

Biodolomer® Ocean ropes for coral restoration on Wasini Island, Kenya, and on Mo'oera Island French Polynesia.

- Using ropes to provide a safe environment for coral fragments to grow.
- Minimising the environmental impacts by replacing plastic ropes with biodegradable ropes.
- Cost-effective and accelerated coral restoration.





# Partners

# Technical team

*Funders/support*

*Piloting*



*Coral gardeners*



Foreign, Commonwealth  
& Development Office



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