



INTPA-NEAR Environment & Climate Week

27-31 March 2023
Brussels, Belgium





UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



Funded by the
European Union

Blue Economy in practice: UNIDO SwitchMed circularity pilots in fish processing and aquaculture value chains

Jérôme Stucki

Chief, Circular Economy and Resource Efficiency Unit

SwitchMed programme

Since **2013**, **SwitchMed** supports and scales up the transition towards **Sustainable Consumption and Production (SCP)** through

- Regional and national **policy** strengthening
- **Skills** development and **pilot** demo on **RECP**
- Circular **business models**
- **Networking** activities

For

- Policymakers
- Small and medium-sized companies
- Industries
- Start-ups and green entrepreneurs



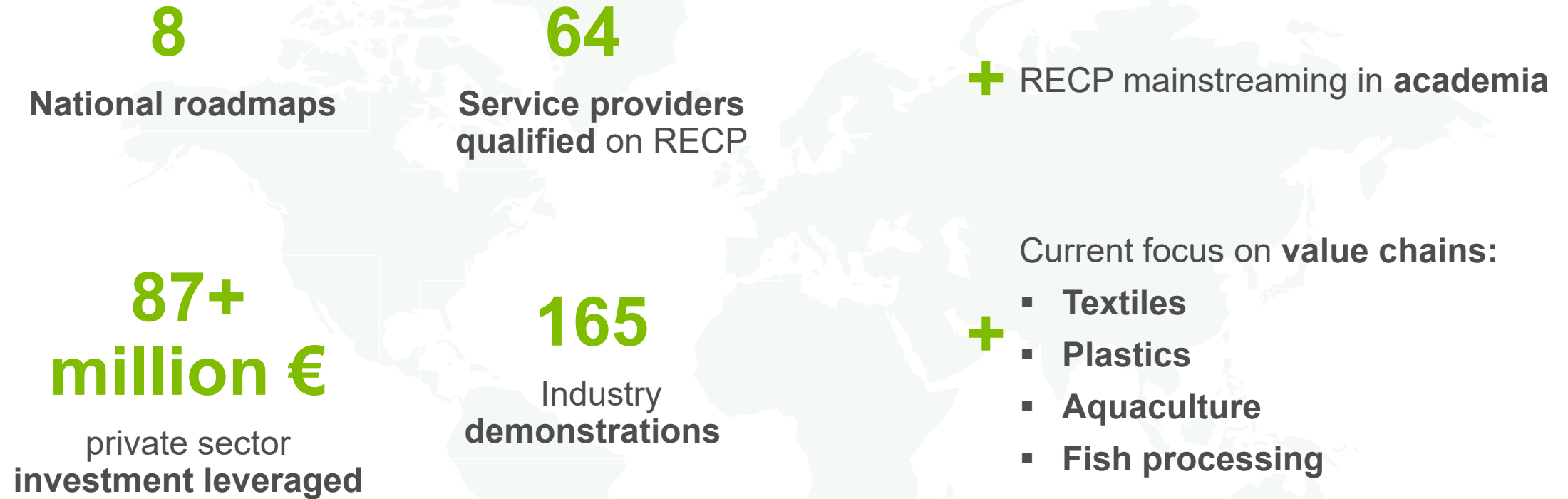
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



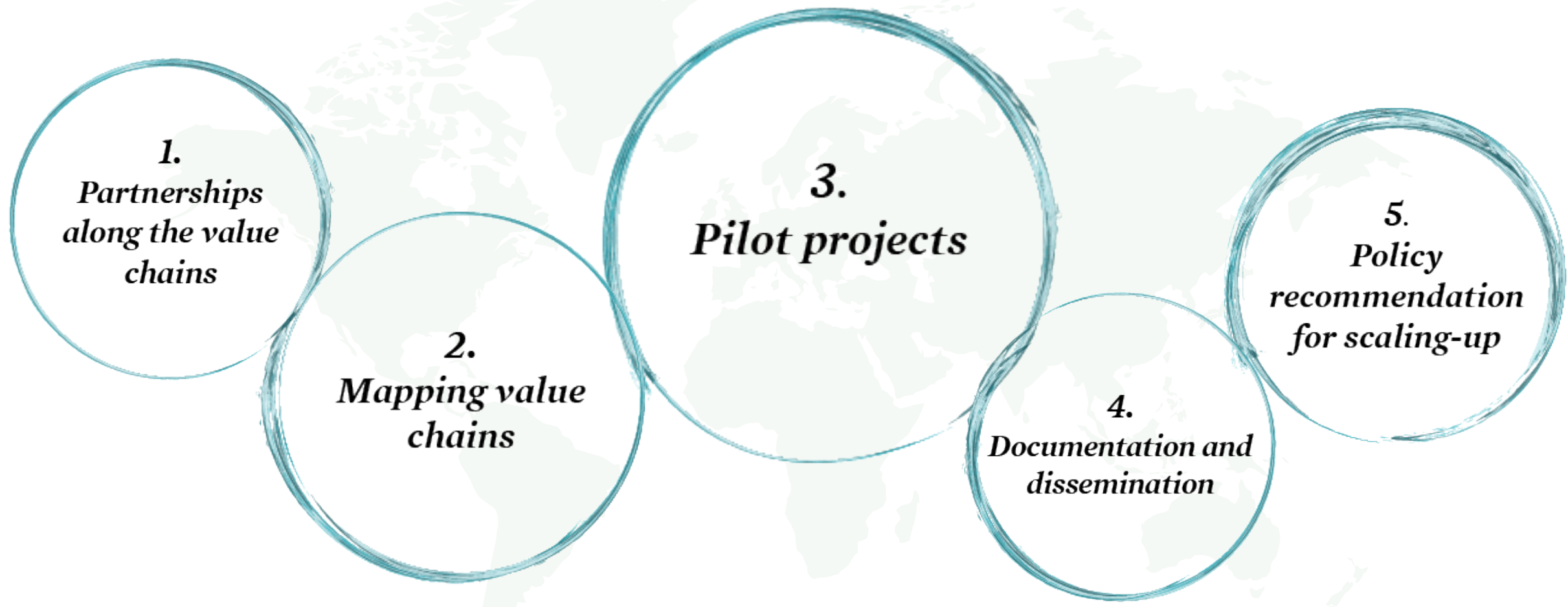
MedWaves
the UNEP/MAP Regional
Activity Centre for SCP



SwitchMed in numbers

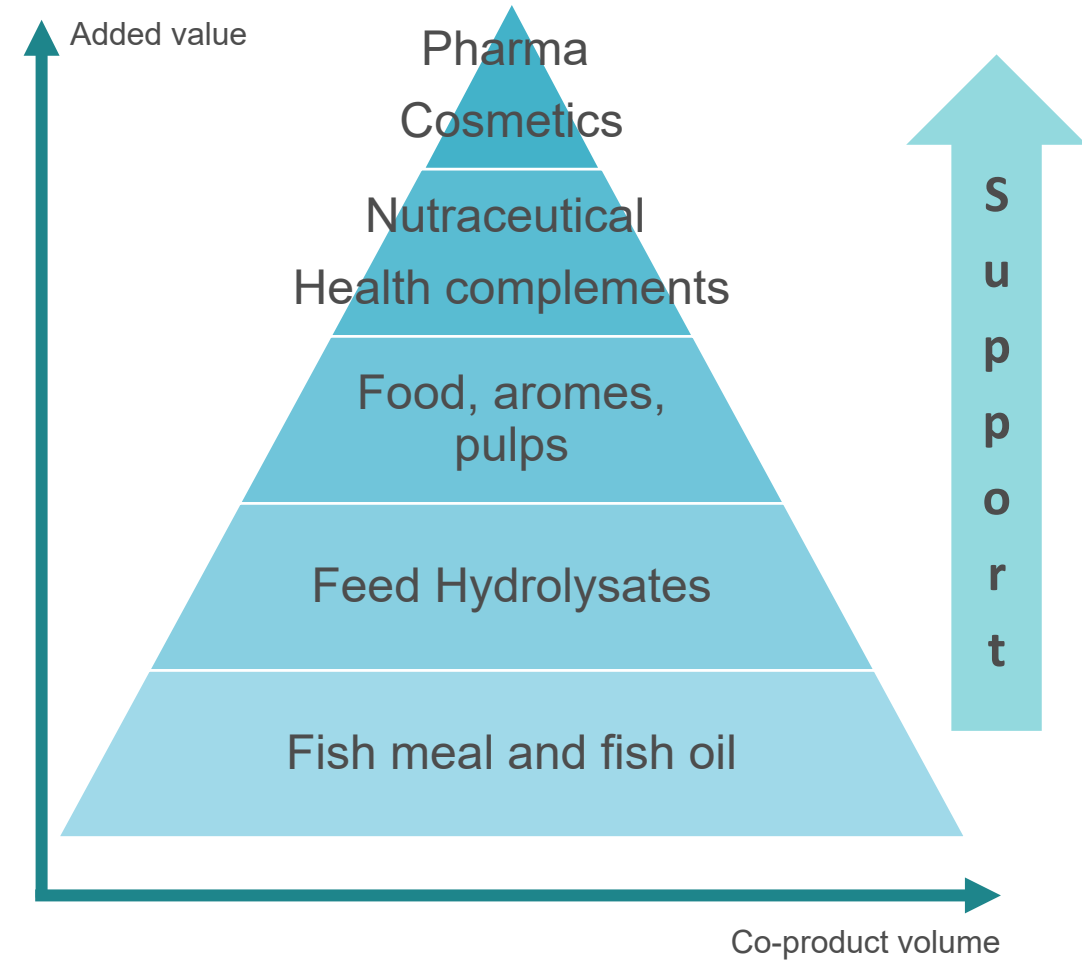
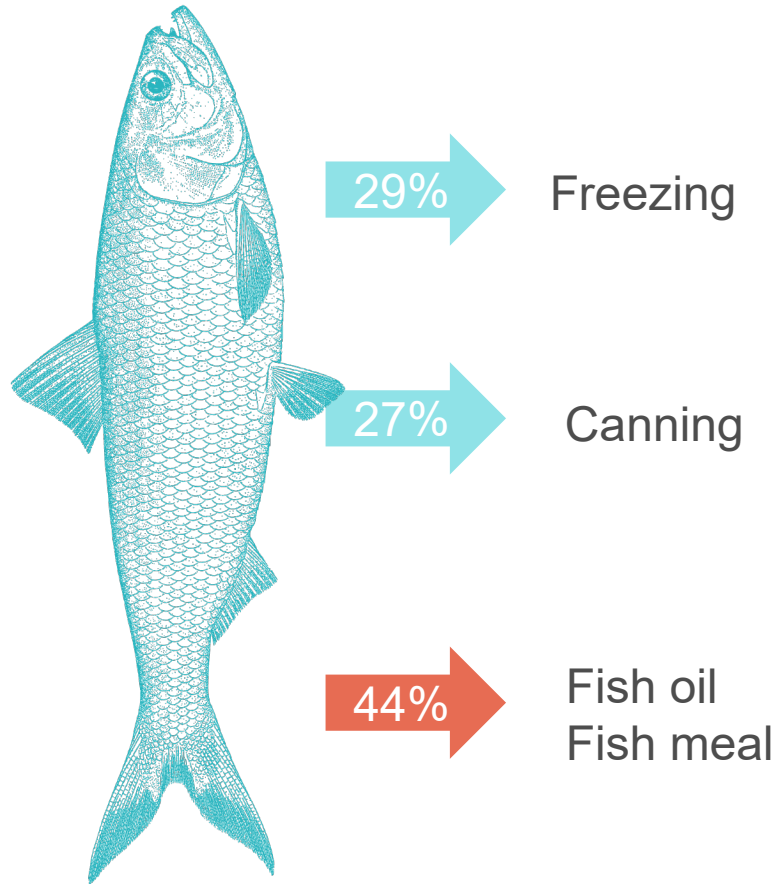


UNIDO Blue Economy pilot project approach

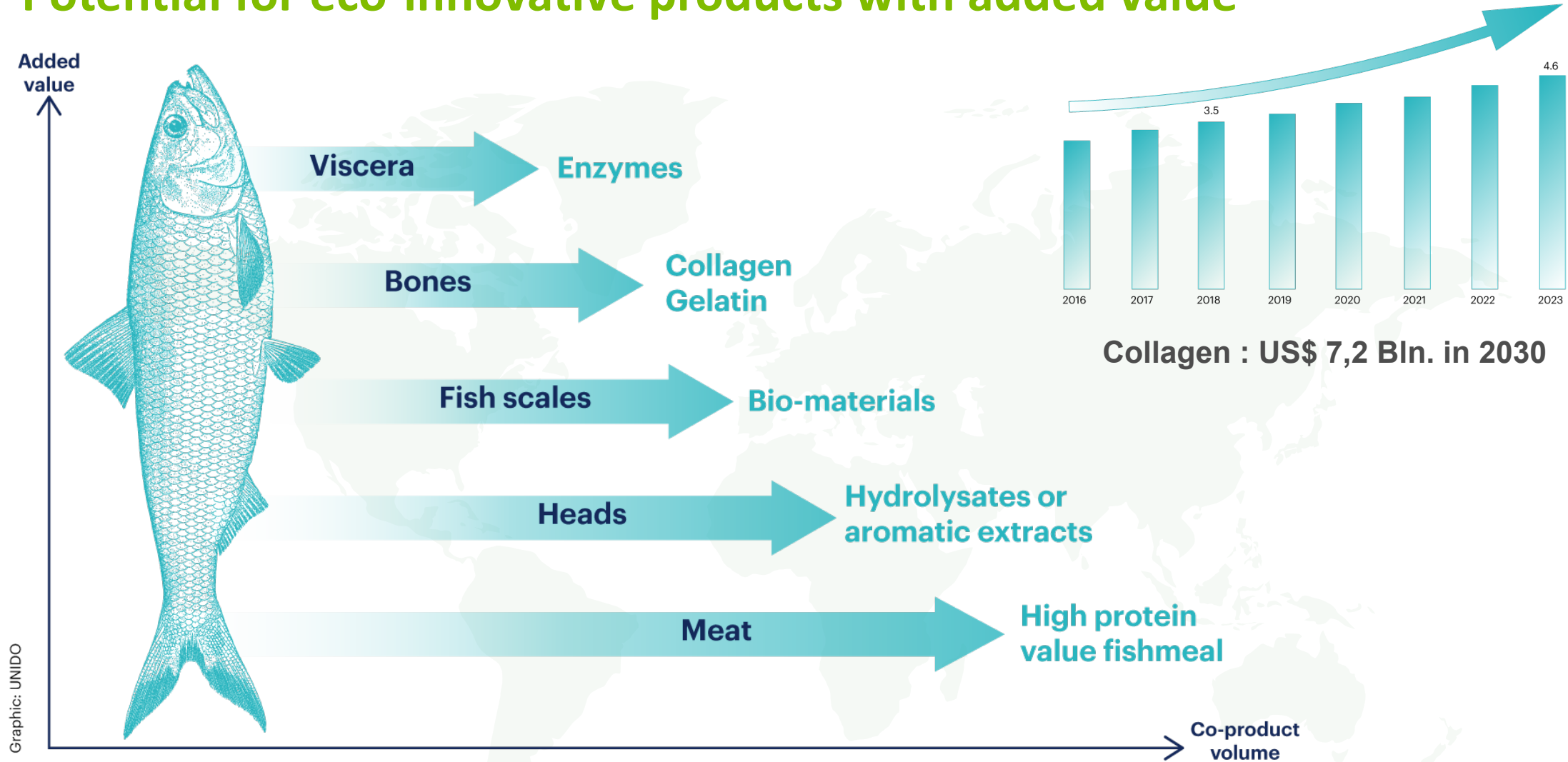


Fish processing in Morocco

Fish now and then



Potential for eco-innovative products with added value



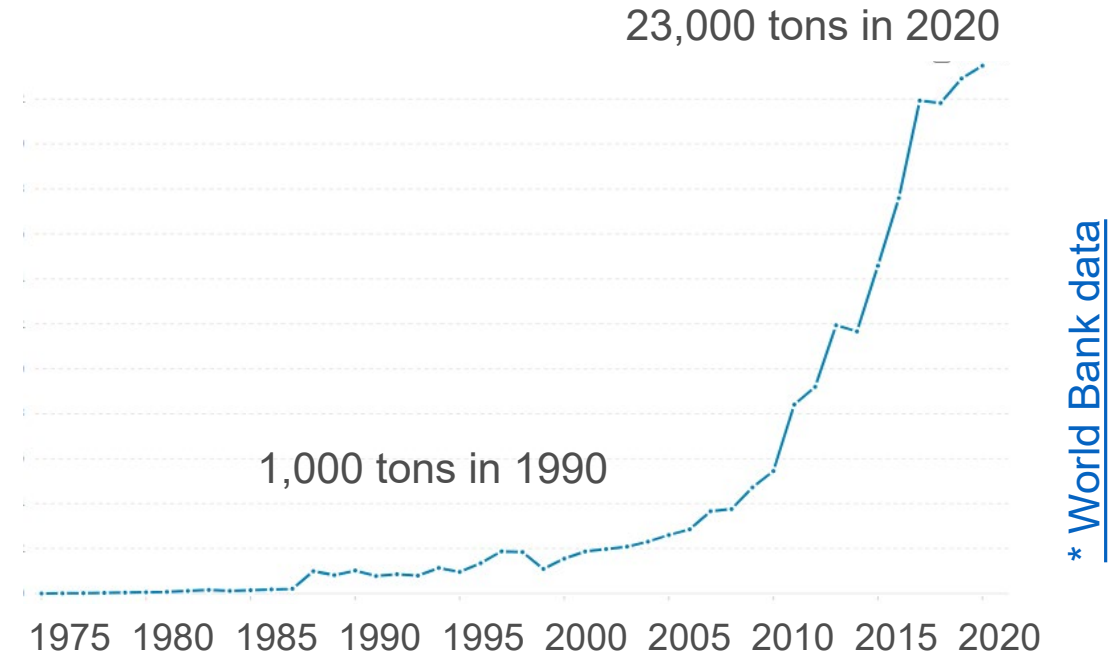
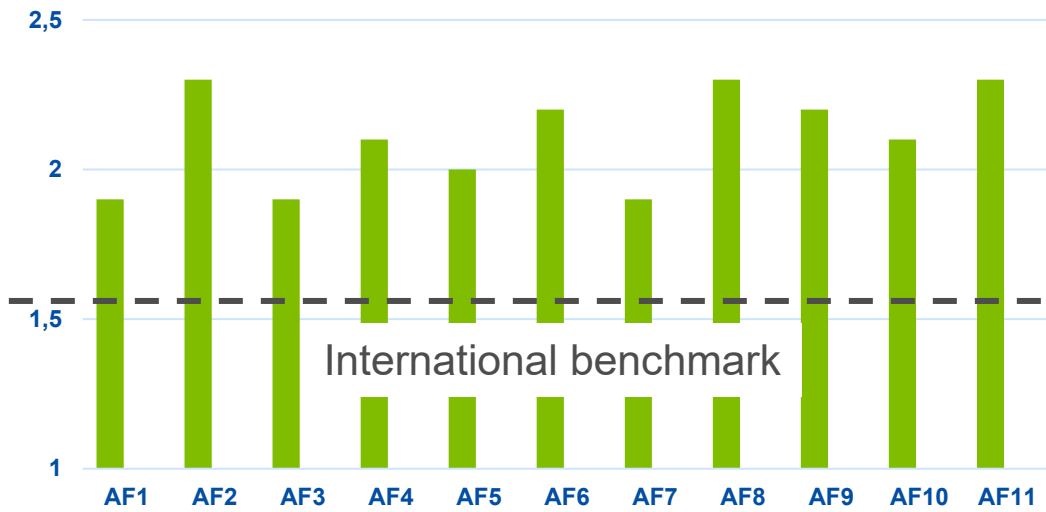
Aquaculture in Tunisia

Aquaculture key parameter

Feed > 60% overall costs

Feed Conversion Ratio (FCR) is key

- **Excess:** environmental impact and economic losses
- **Underfeeding:** performance impact
- FCR is **dynamic**



Tunisian strategy:
56,000 tons by 2030

Innovation piloting

CURRENT FEEDING



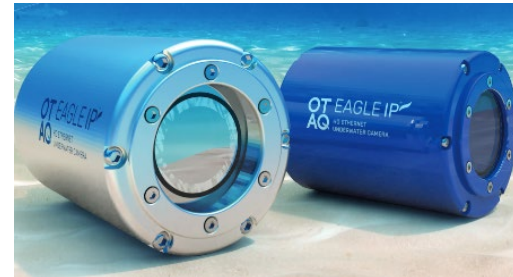
TARGET

- Technology transfer
- Digitalization
- Upskilling
- Youth employment

SMART TECHNOLOGIES



Homogeneous
distribution systems



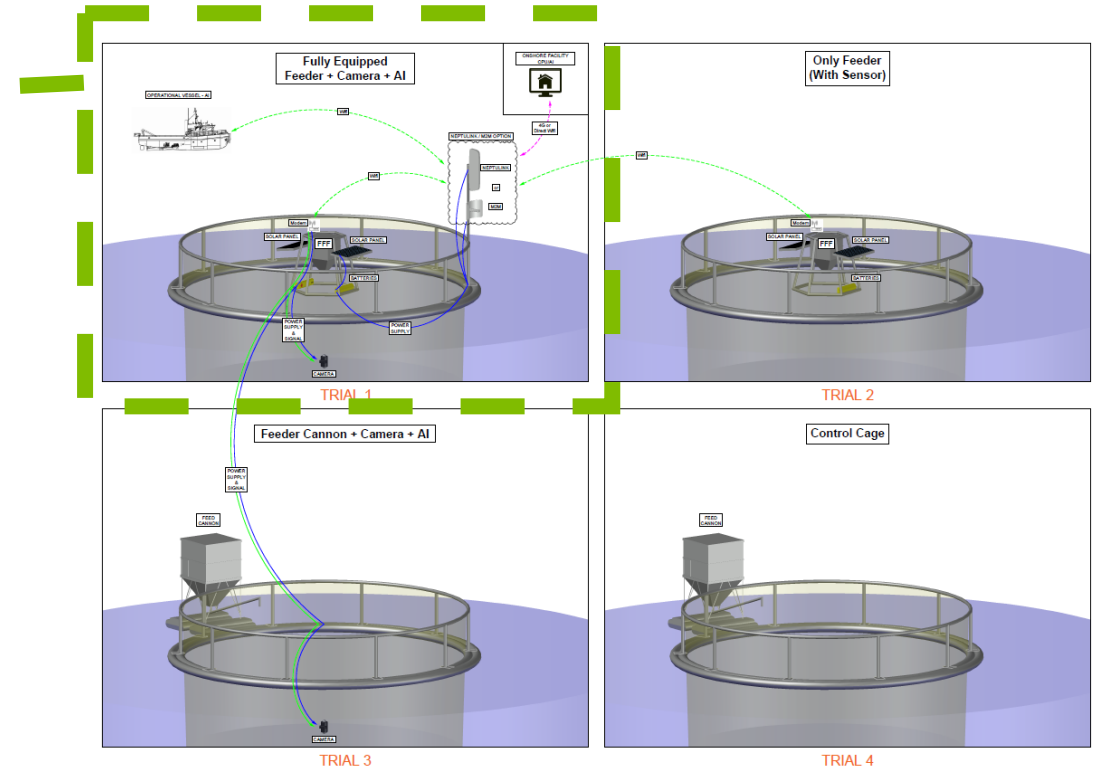
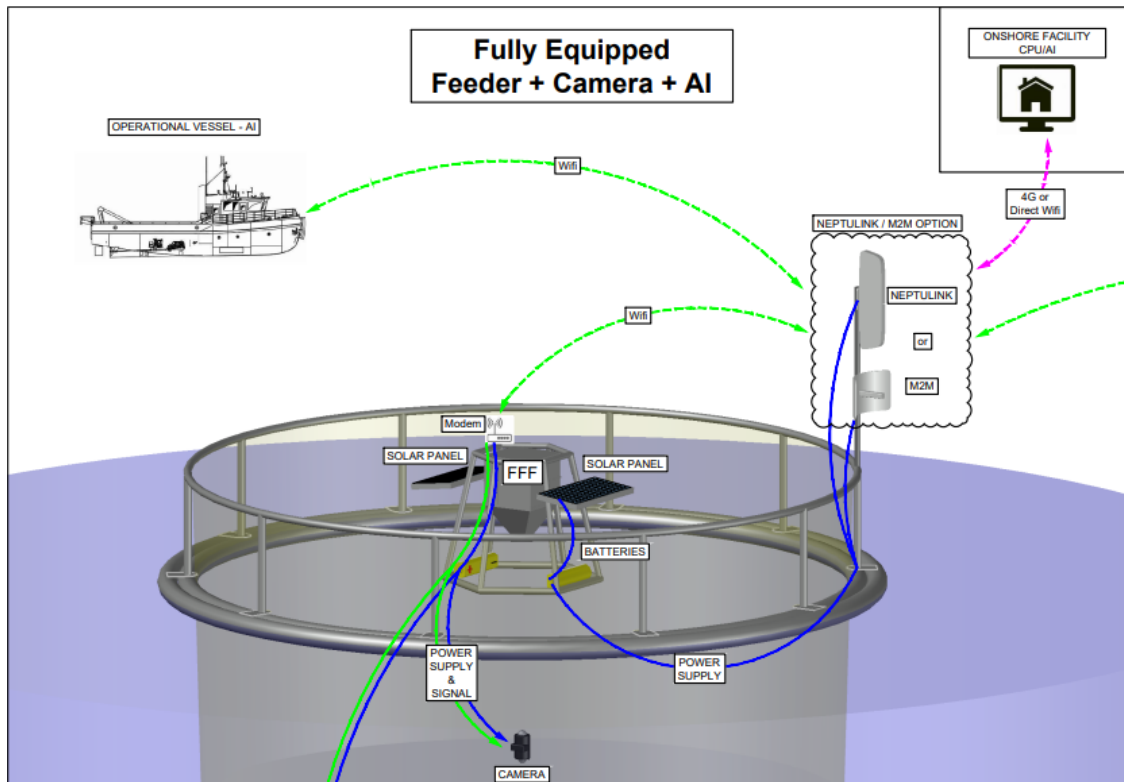
Underwater camera



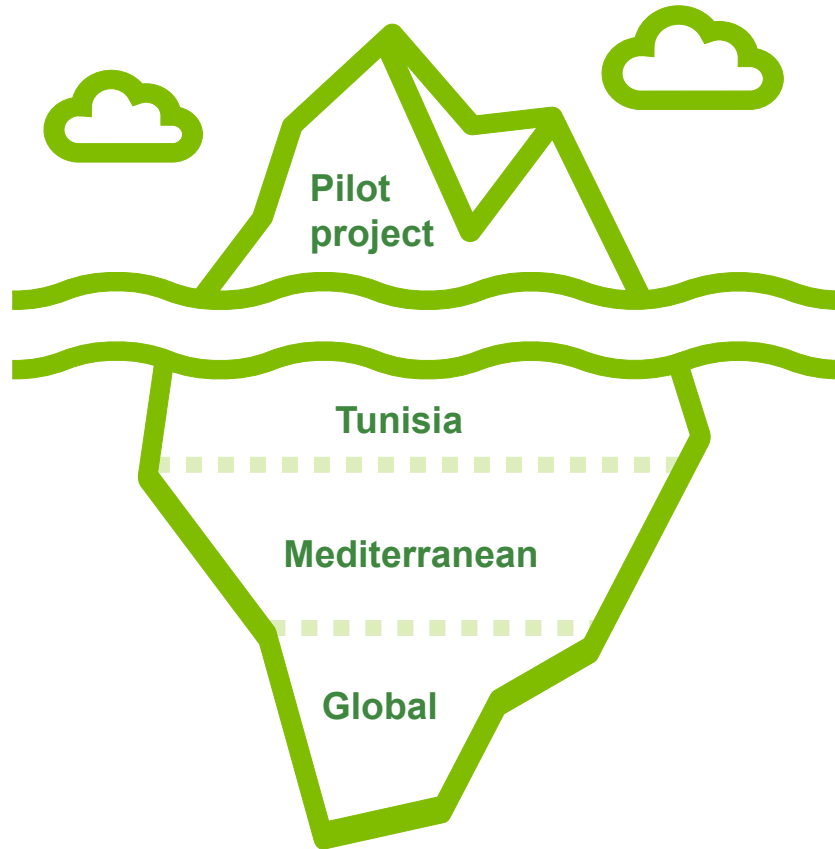
Artificial Intelligence

Innovation optimization

Pilot project: Fully integrated SMART Aquaculture system



Scale up potential

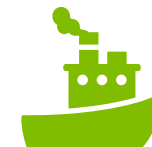


National level: **x25 per cycle** (approx. 1 year)

If FCR reduces from 2.1 to 1.8:

- **Environment**
 - **500+ tons** Nitrogen avoided
 - **70+ tons** Phosphorus avoided
- **Economics**
 - **7,500 tons** of fish feed unwasted
 - **EUR 10 Mio** saved

+ CO₂ avoided along supply chain



SwitchMed and the Blue Economy

Building a solid community of stakeholders to support consumption and production of sustainable products and services of the Blue Economy



[Morocco](#)



[Tunisia](#)

