

North Devon's Aquaculture Enterprise Zone

SWAN

UNESCO Biosphere Network

- 735 UNESCO Biospheres in 129 countries
- 5% of the earth's surface
- Home for ¼ bn people

UNESCO Biosphere Mission:

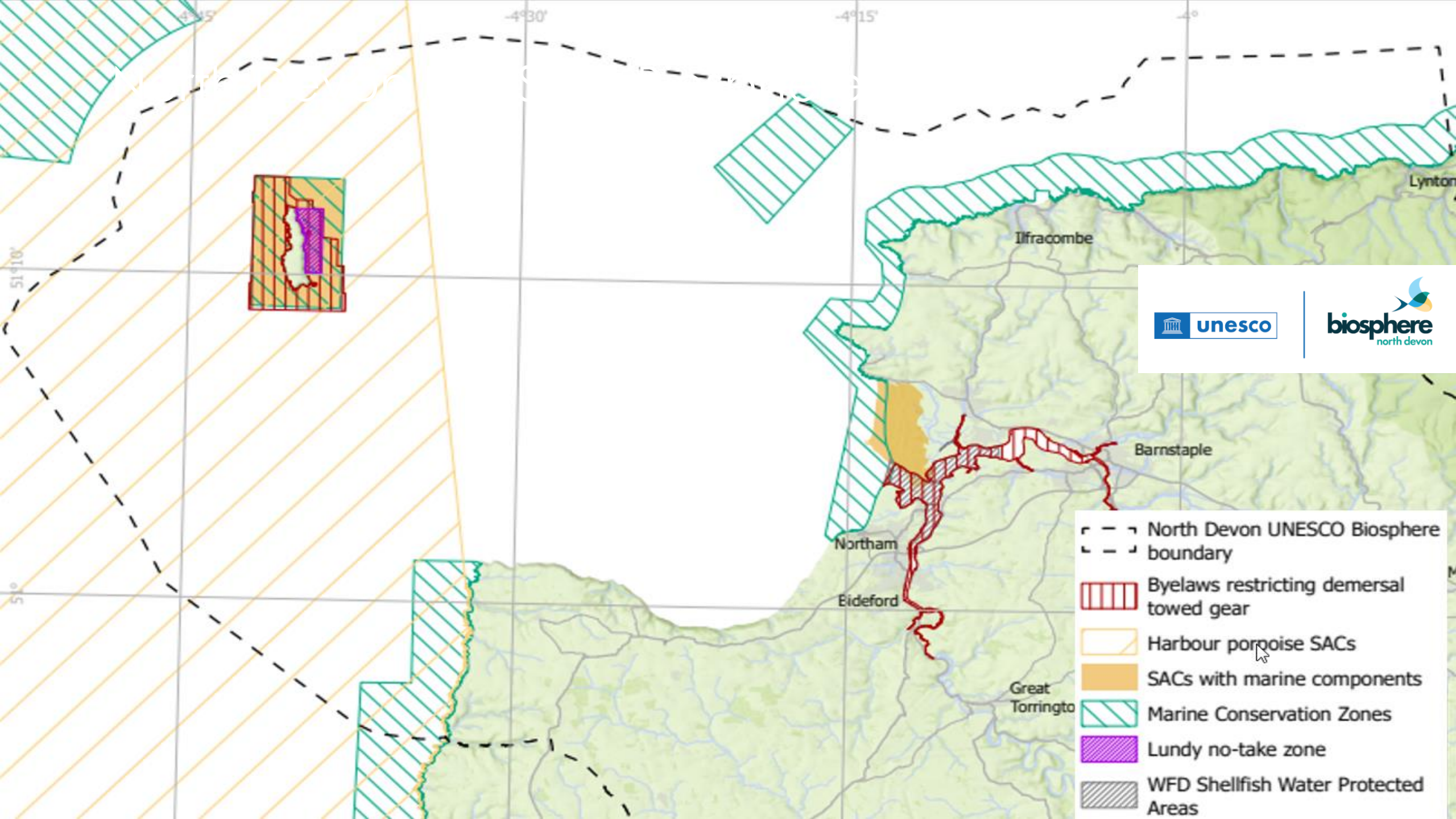
“Promoting innovative approaches to economic development that are socially and culturally appropriate and environmentally sustainable.”



Biosphere Foundation CIC



1. 100% non-profit trading arm of North Devon UNESCO Biosphere
2. Focus on rollout (national/international)
3. Operates like a tech start-up
4. Focus on *natural capital economics*



- - - North Devon UNESCO Biosphere boundary
- ▨ Byelaws restricting demersal towed gear
- ▨ Harbour porpoise SACs
- ▨ SACs with marine components
- ▨ Marine Conservation Zones
- ▨ Lundy no-take zone
- ▨ WFD Shellfish Water Protected Areas

Community Renewal Fund (£1.4m)

Blue Biosphere

1. Marine Gateway to offshore renewables
2. Aquaculture Enterprise Zone
3. Blue Carbon
4. Integrated Marine Management Plan

Green Biosphere

1. Woodland Enterprise Zone
2. Devon Woodland Assessment
3. Woodland Construction
4. Soil Carbon Pilot
5. Natural Capital Marketplace

Environmental Intelligence Platform (Smart Biosphere)

Localised, vertically-integrated supply chain (upstream/downstream)

Skills, employment & wellbeing pathways (DCC/OND)

£50m Natural Capital Impact Fund (Vivid Economics/Investing For Good)

Our Aquaculture Approach

1. Local, vertical integration of supply chain to maximise jobs and valorisation
2. Scale approach to improve CBA of infrasture/capital
3. Sustainability; environment benefits as a product
4. IMTA (seaweed & bivalve)
5. Community prosperity rather than extractive profit
6. Linked with skills agenda and R&D
7. Economic development strategy (unlocks government funding)
8. Create replicatable model which can be reapplied elsewhere
9. Collaborative and open approach

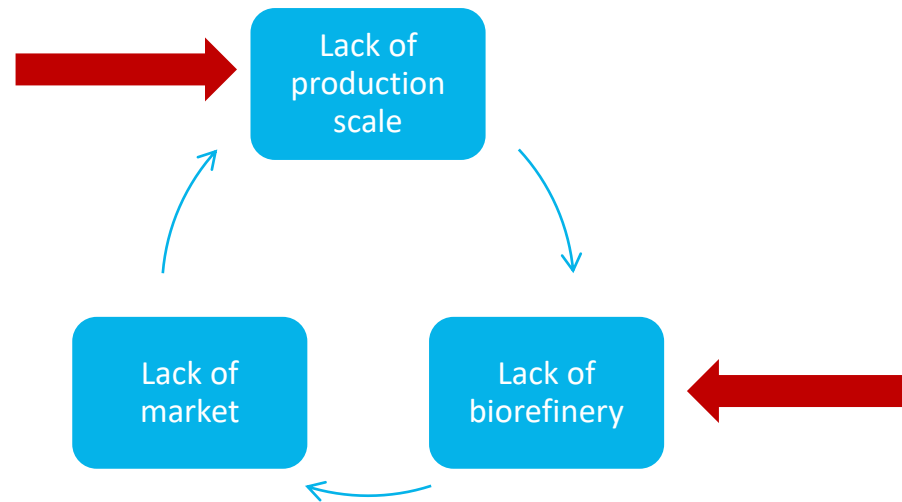
The Concept

An Aquaculture Enterprise Zone that actively supports and encourages sustainable aquaculture and provides the infrastructure, processing, supply chain, skills development and market access to create a thriving local aquaculture economy with significant environment and coastal community benefits which can be replicated elsewhere.

Market Blockers

Seaweed

- Permitting/licensing
- Lack of market = high price/low volume



Bivalve

- Permitting/licensing
- Shellfish water quality issues
- Nascent ecosystem service revenue of bivalves (e.g., nitrate extraction from water)

Local, vertical integration of supply chain

Seaweed

- Local hatchery services
- Block license approach to generate scale
- South West biorefinery to create marketable products (and more jobs)
- Academic & skills development with the University of Plymouth

Bivalves

- Block license approach to generate scale
- Quantify bioremediation to create nutrient credit revenue

Two site strategy - Estuary (early growth) & nearshore (growing on)

Robust data and monitoring to quantify benefits

CRF Deliverables

- Launch-ready £50m natural capital fund
- Aquaculture Enterprise Zone Investment Case
- North Devon Aquaculture GIS analysis
- Nearshore Environmental Intelligence platform (Siemens)
- Blue Carbon Business Case
- Integrated Supply Chain Business Case including SW hatchery and biorefinery

Next Steps

- In partnership with CEFAS and UoP, work with MMO/Crown Estate on block licensing
- Capture feedback from SWAN and partners