

Quantification of Ecosystem Services for Offshore Wind

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RUNNING TIDE

The Global Ocean Health Company

Our Process

1

Diagnose

Develop and deploy sensors
to monitor ocean health

2

Deploy

Design and deploy
data-based solutions that
amplify natural processes

3

Quantify

High integrity quantification
and verification of impacts

Interventions providing quantifiable ecosystem services

Interventions can be integrated into all stages of project development: design, construction, operation, and decommissioning.

Bivalves



Oysters



Surf Clams



Atlantic Scallops

Macroalgae (kelp)



Various Species

Beneficial
Sediments

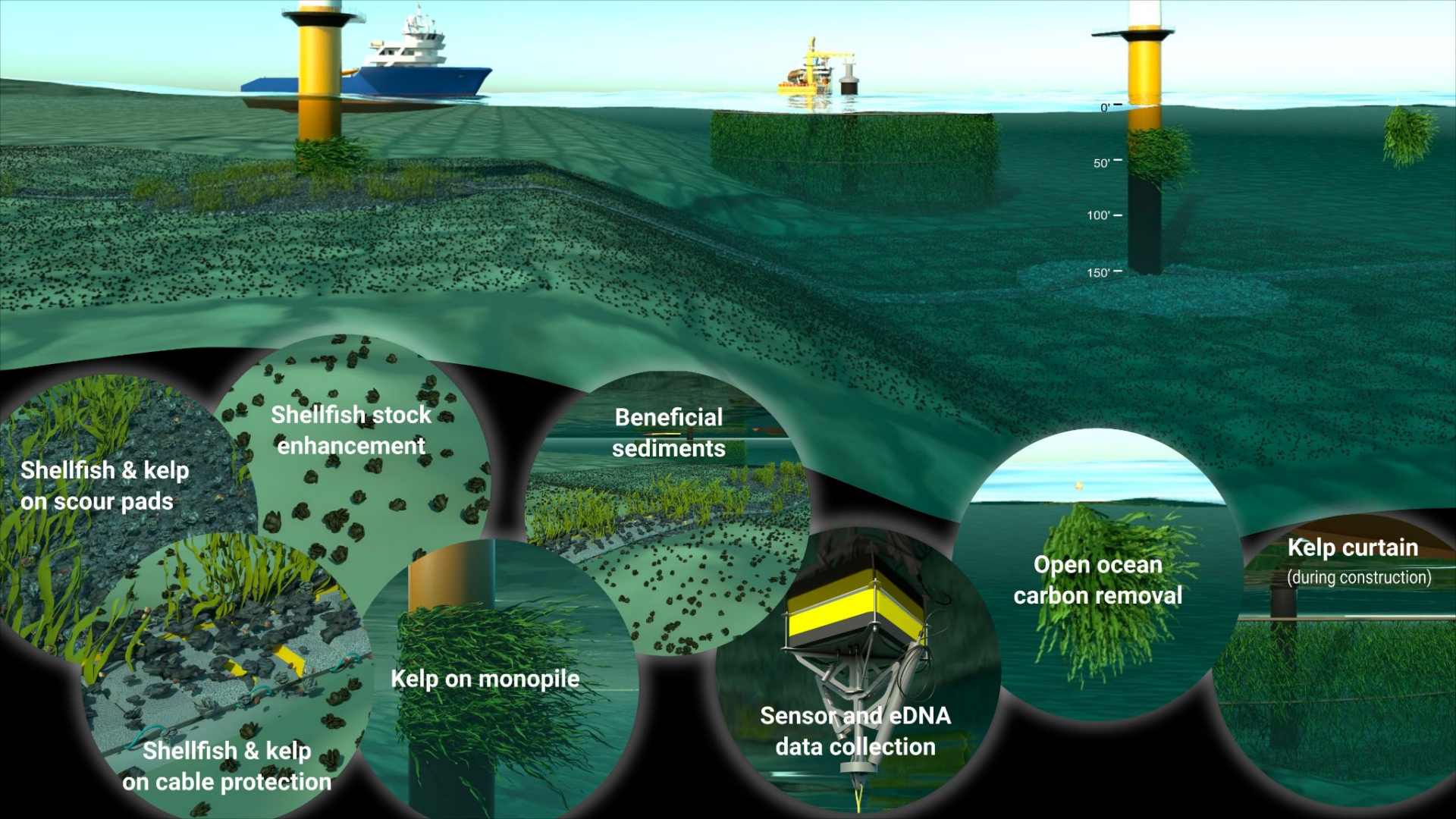


Metal Silicates
& Carbonates

- Fisheries enhancement
- Water filtration
- Habitat provisioning
- Sediment stabilization
- Reef building
- Denitrification

- Habitat provisioning
- Nutrient cycling
- Shoreline protection
- Noise abatement
- Increases pH
- Oxygenates water

- Reduces acidification
- Improves calcifier growth
- Durable Carbon Removal
- Wide range of minerals



0'
50'
100'
150'

Shellfish & kelp
on scour pads

Shellfish stock
enhancement

Beneficial
sediments

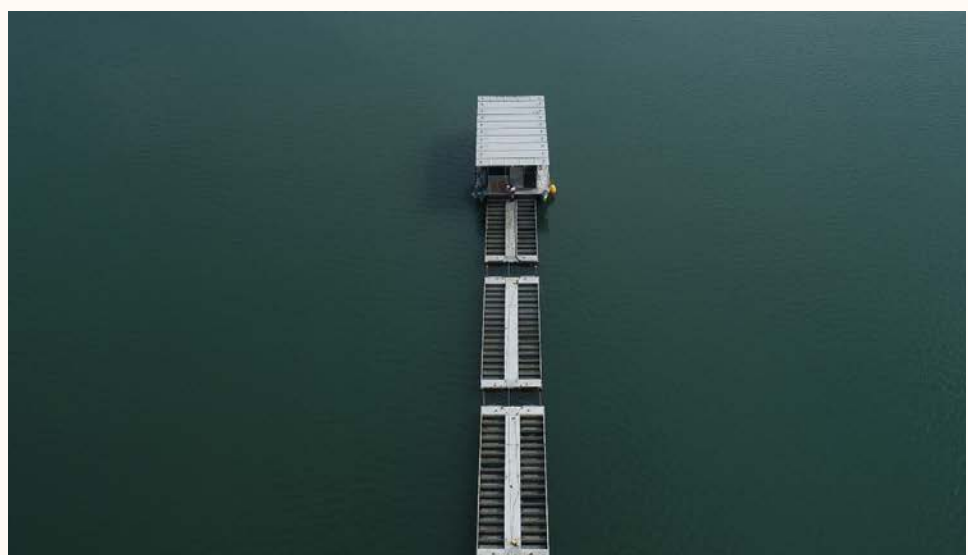
Kelp on monopile

Shellfish & kelp
on cable protection

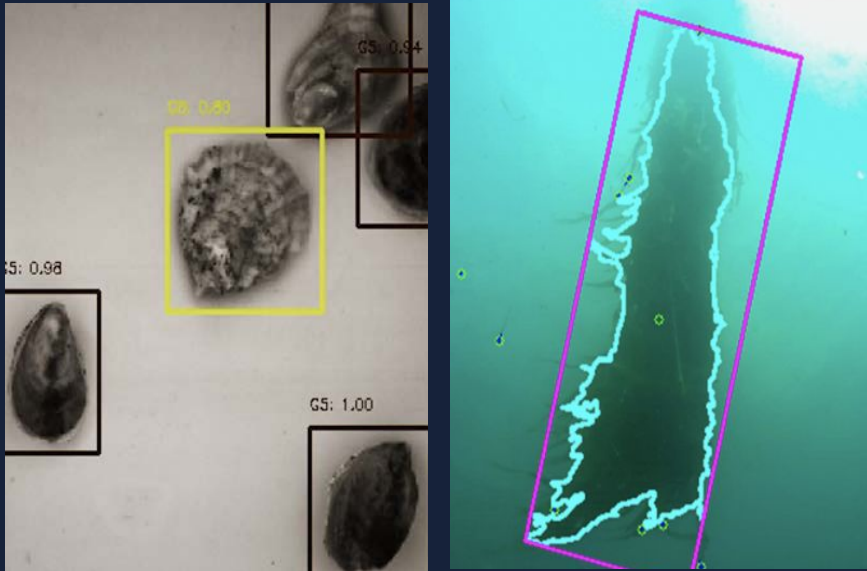
Sensor and eDNA
data collection

Open ocean
carbon removal

Kelp curtain
(during construction)



Quantification: Technology, Data and Analytics



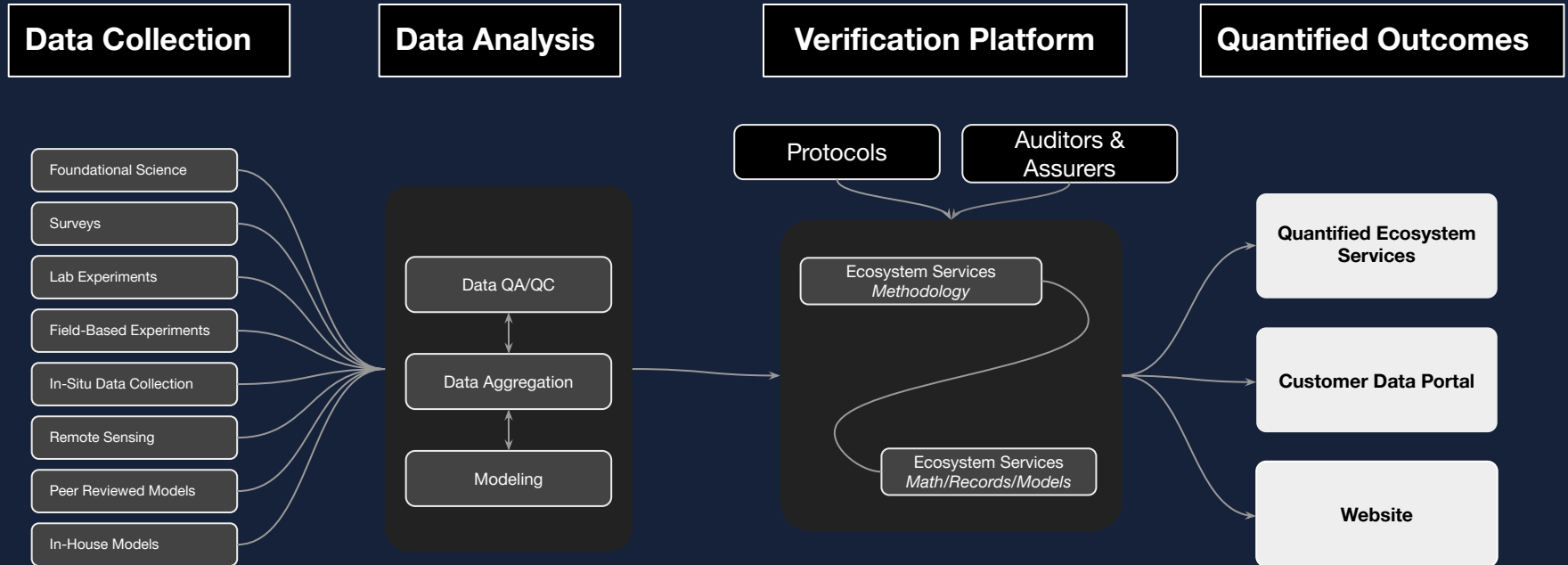
Enabling Technologies

- Machine Vision
- Environmental Sensing and data buoys
- Modular shellfish grow-out platform
- Modular kelp hatcheries
- Open-ocean carbon removal quantification system
- eDNA lab

Data Outputs

- Growth models across species & environments
- Ever-improving ocean models
- Quantification of ecosystem benefits
- Quantified carbon removal
- Biodiversity changes over time

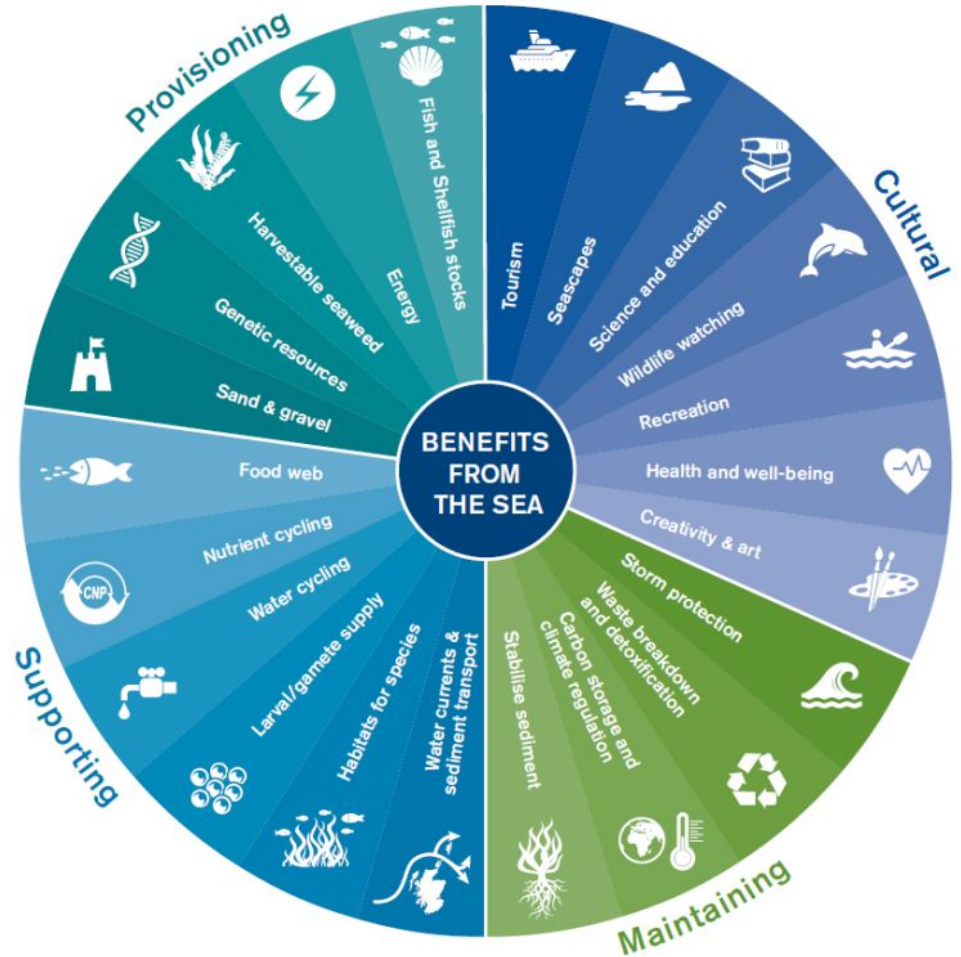
Data flows through Running Tide's verification platform delivering quantified outcomes to customers



The tip of the iceberg

Carbon removal is one of many ecosystem services that the ocean provides. There are countless more, with enormous value to society:

- Nutrient cycling
- Habitat for species
- Food web/biodiversity
- Wild fisheries
- Storm protection
- Waste breakdown



Thank you
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