



SeaLens

AI Environmental Assessment
for Marine Applications

OCEAN OS

The Problem

Environmental uncertainty adds years and millions in delays to every offshore infrastructure project. But no single platform exists to fix it.

4-7

Years

Marine Environmental Consent

£2-5M

Spending

Ecological management costs alone

1000+

Decisions

Across the pre-consent process

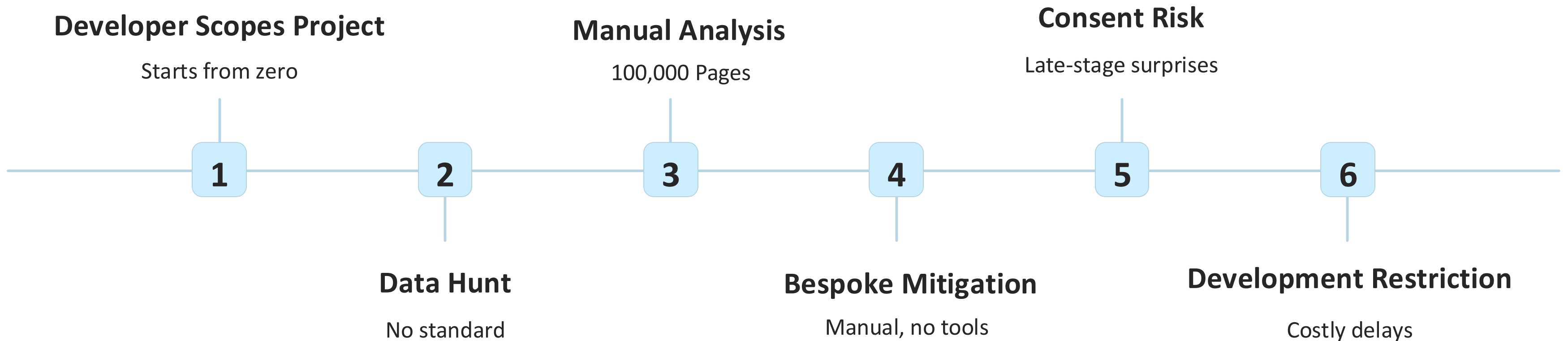
Fragmented ecosystem

- No single tool
- Data collected from many sources
- Different companies involved - Developers, Consultants, Regulators

Based on the past, not the future

Current Environmental Baseline Process

Site scoping is high volume, high risk



Developers, consultants and regulators all feel the pain: they want to improve

50GW by 2030 in the UK. 110GW across Europe. 80-120 New Projects.

 **£160M - £600M**

Total UK offshore infrastructure
environmental assessment market

 **80-120 New Projects**

Offshore wind alone over 5-10 years

 **£600M- £1B**

Wider infrastructure market
(Oil&Gas, Subsea cables, Hydrogen, Ports)

No integrated intelligence or decisioning platform exists.

The market lacks answers and cohesion.

SeaLens: Environmental Intelligence Platform

Transforming offshore development decision-making

01

Upload Site Polygon

Define project boundaries

03

Mitigation Scenarios

Optimise timing and cost-benefit pathways

02

Species & Environment Risk Analysis

Instant distribution mapping and risk assessment

04

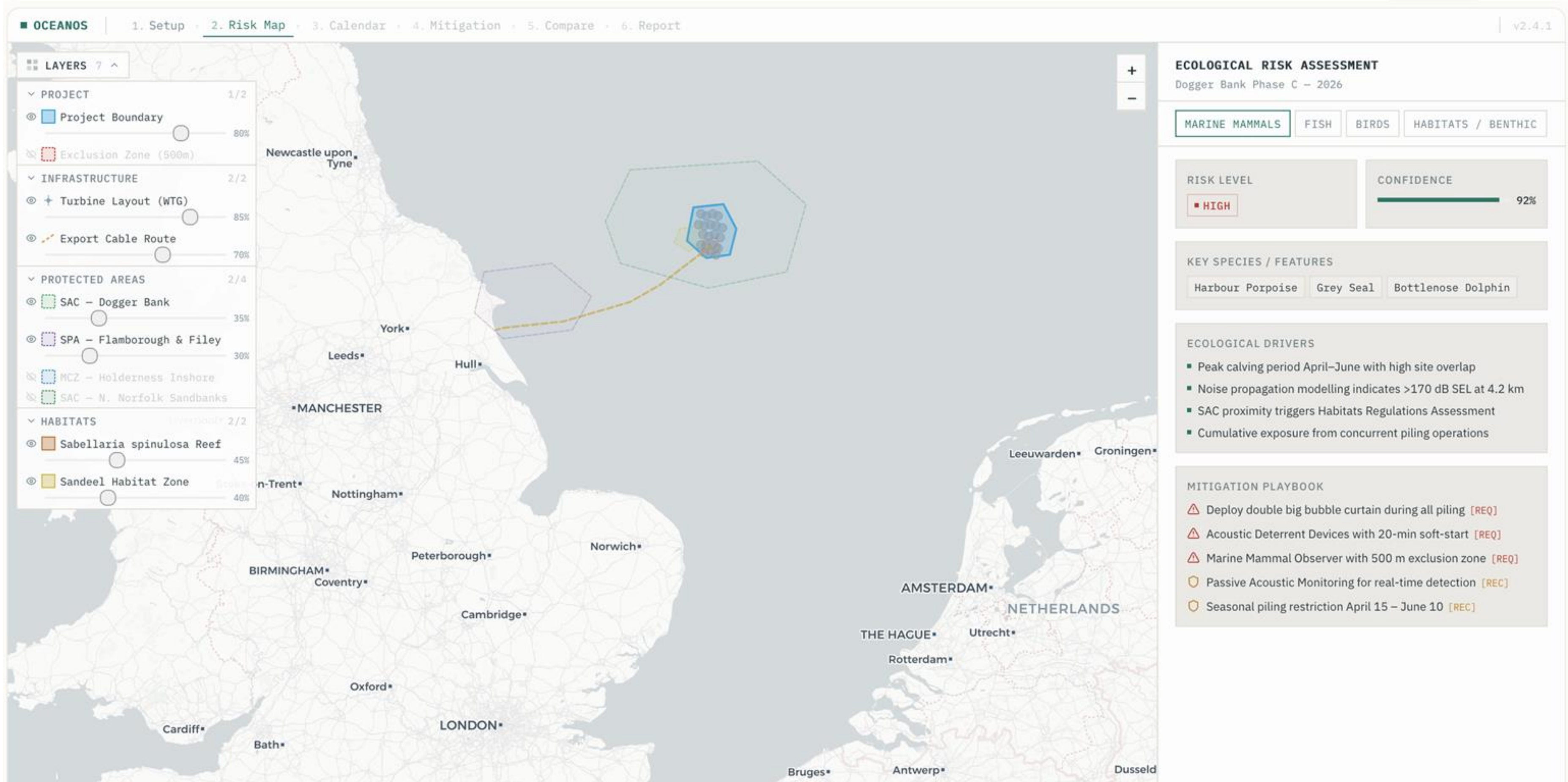
AI Export Reports

Regulatory-ready documentation and visualisations

Key Features

- Interactive GIS Mapping Layer
- Agentic Chat Interface
- Seasonal presence forecasting
- Climate Shift impact analysis
- Automated habitat classification
- UK marine map with project site outlined
- Risk and Scenario Planning Module
- Mitigation measures automatically generated
- Export to regulatory formats
- Multiple stakeholders in the value chain can review outputs
- Updating and training with new data

Sealense Snapshot



DARWIN: The Ocean Foundation Model

Proprietary AI engine powering OceanOS intelligence

DARWIN is the marine equivalent of an LLM

Purpose-built to process **32 years of multi-modal ocean data**

Higher accuracy, scale and observations than any other traditional Machine Learning method



Species Distribution

Predictive mapping across UK & Global waters.



Temporal Intelligence

Seasonal and long-term forecasting.



Zero-Shot Prediction

Instant insights for new locations.



Regulatory-Grade

Scientifically validated outputs.

Harmful Algal Blooms

Marine Heatwaves

Pollution Tracking

Coral Bleaching

Sealense Impact and Go-To-Market

£200K–1M

Saved per project

In consenting costs

3–6

Months compressed

From consent timeline

30–40%

Reduction

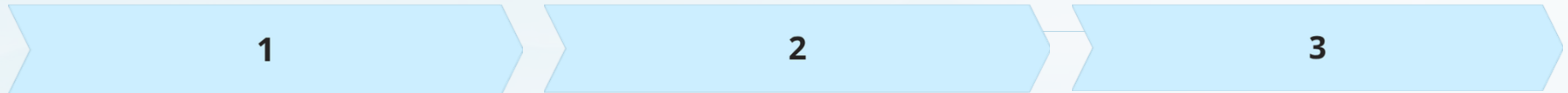
In survey scope through targeted sampling

10-20%

Delay costs avoided

Per project

Go-to-Market Strategy



Phase 1

UK pilots:

Usage Based Credits

2-3 developers initially

Phase 2

UK SaaS rollout:

Usage-based credits+

Subscription

All UK developers

Phase 3

UK + International

Consortium platform + Usage

Based Credits + Subscription

Validated Demand.

Designed for Regulatory Acceptance.

Technical Validation

Exceed MaxEnt baseline

(gold standard for Species Modelling)

Target: AUC >0.75 for 70%+ of species.

Spatial block cross-validation.

Boyce Index preferred metric for presence-only data.

Commercial Validation

Extensive customer discovery with Consent Managers, Environmental Managers, Consultants & Ecologists.

Running workshops

Delivering scientific webinars

Observing day-to-day workflows

Regulatory Pathway

Engaged with CEFAS, MMO and the Crown Estate for scientific validation.

Methodology transparency will meet MMO regulatory requirements.

Peer-reviewed publication planned

FACULTY

RWE

Ørsted



CATAPULT
Offshore Renewable Energy



Centre for Environment
Fisheries & Aquaculture
Science

Team



David Lamb
CEO & Founder
20+years Offshore
Windfarm Expertise



Laurens Geffert, PhD
CTO
Data Science and Species
Distribution Expert



Rhys Feeney
CPO
AI Product Leader
Chartered Accountant

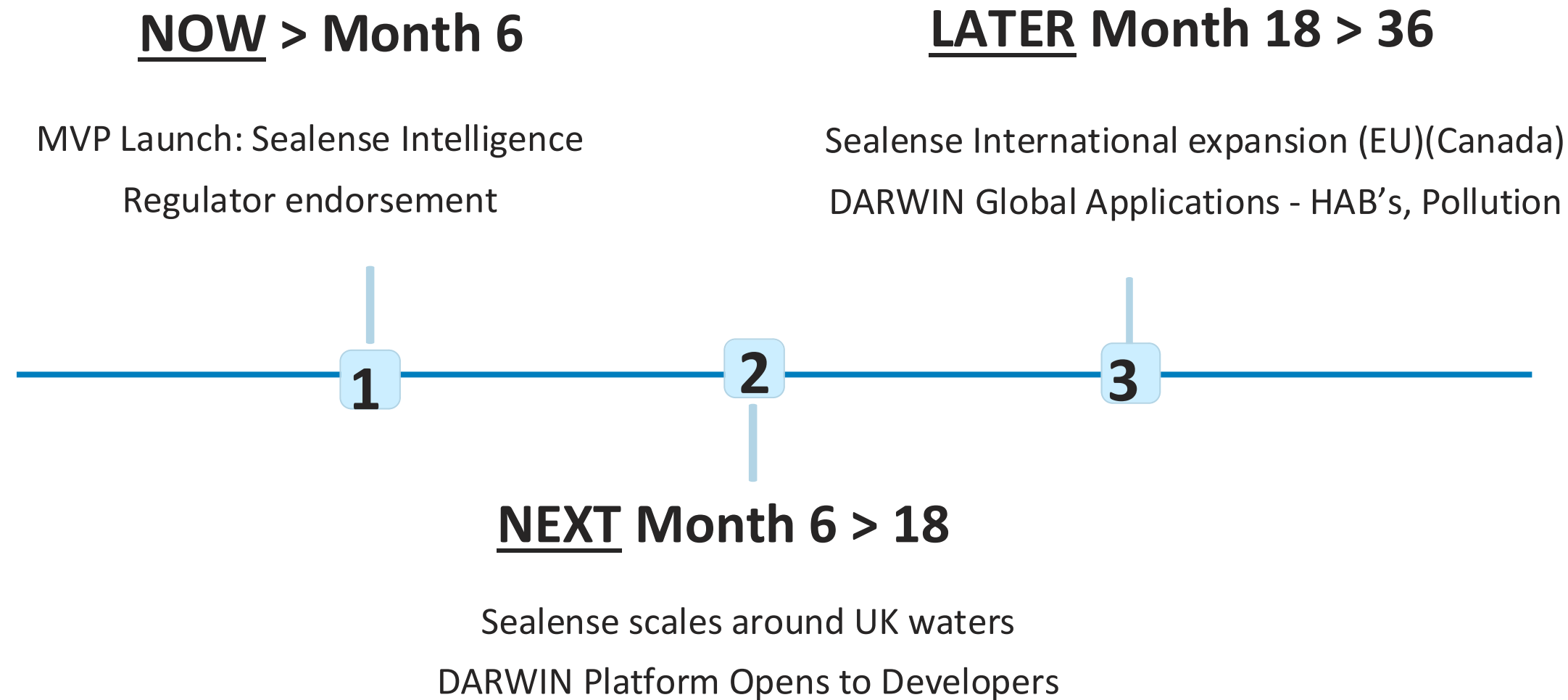


Josh McCarty
CMO
Environmental Communicator
Marine Conservationist



Coen Van Elsen
AI Engineer
AI Modelling Expert
MSc Artificial Intelligence UvA

Roadmap & Ask



The Ask

1. Pilot customers:

- offshore developers
- teams using marine data

1. **Early stage investors** who want to scale ocean AI intelligence

Goal: First paying customer within 6 months.