

# Instant Oil Spill Response with Autonomous Tech



Online Control System 

OliOil



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# Problem Statement

## Overview of the Problem

Oil spills pose a significant threat to marine environments, with devastating consequences for wildlife and ecosystems.

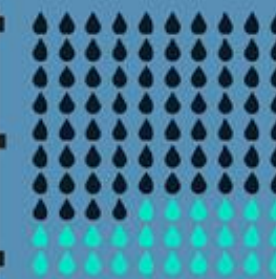
Every  
15 minutes  
there is an oil spill



Source: National Oceanic and Atmospheric Administration, NOAA.



Source: Environmental Protection Agency, EPA.



**700+  
million  
gallons**

of oil enter the  
ocean every year

As of April  
2020, there  
were 810 very  
large crude  
carriers (VLCC)

Source: Clarkson's Research.





**Oil slick spotted.  
Clean up in progress.  
Please stay clear of water.**



**Please approach  
Beach Patrol  
team for assistance**



**CNA**  
348,430 followers  
4mo •

✓ Following ...

"This is the worst oil spill in 20 years that I've seen."

As clean-up efforts continue following an oil spill along Singapore's southern shores, some sea sports and yacht operators are feeling the brunt of cancelled bookings and loss of customers. CNA's [Nicolas Ng](#) and [Louisa Tan](#)

[#environmentalprotection](#) [#oilspill](#)



**'Almost a complete loss': Oil spill  
businesses' plans to cash in on lo**

[channelnewsasia.com](#)

Andrew Dixon, who runs a sustainable resort on an island near Singapore, told Reuters that oil spills of this scale are rare in Singapore. He called on authorities to enact penalties so something like this doesn't take place again. "It is just criminal," he said.



## Traditional vs. OliOil

What if OliOil would have been used in Singapore?

### Current solution used in Singapore:

- 15-hour response time
- At the port

### OliOil solution:

- 30-minutes response time
- Even on the open sea

A collision between vessels in Singapore resulted in a spill over 400 tonnes of oil, significantly impacting coastal and ocean ecosystems.



## How it Works

### Step-by-Step Process

**01** Deployment of first aid kits and robotic vessels in the tankers.



**02** Real-time data sharing and coordination



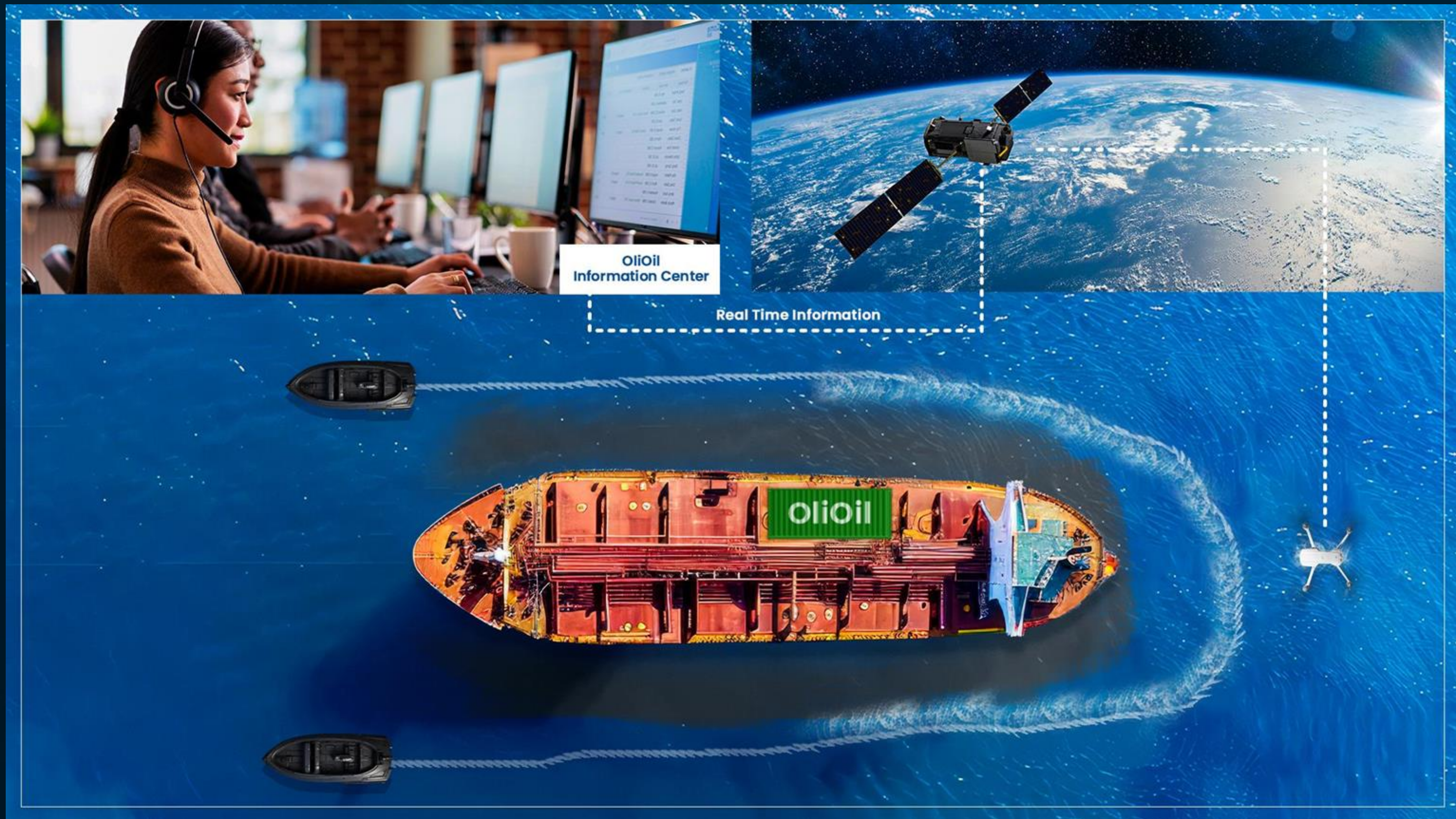
**03** Enclosure and recovery of oil using booms / collection of oil (oil and water separation is very feasible / normally oil is burned in the sea).





## Solution: OliOil Technology

OliOil deploys autonomous first aid kits and robotic vessels to contain and clean up oil spills efficiently.





## Oil Spill Cleanup Market

The global oil spill cleanup market was valued at USD 125.6bn in 2022 and is projected to grow significantly.

Source: Grand View Research.

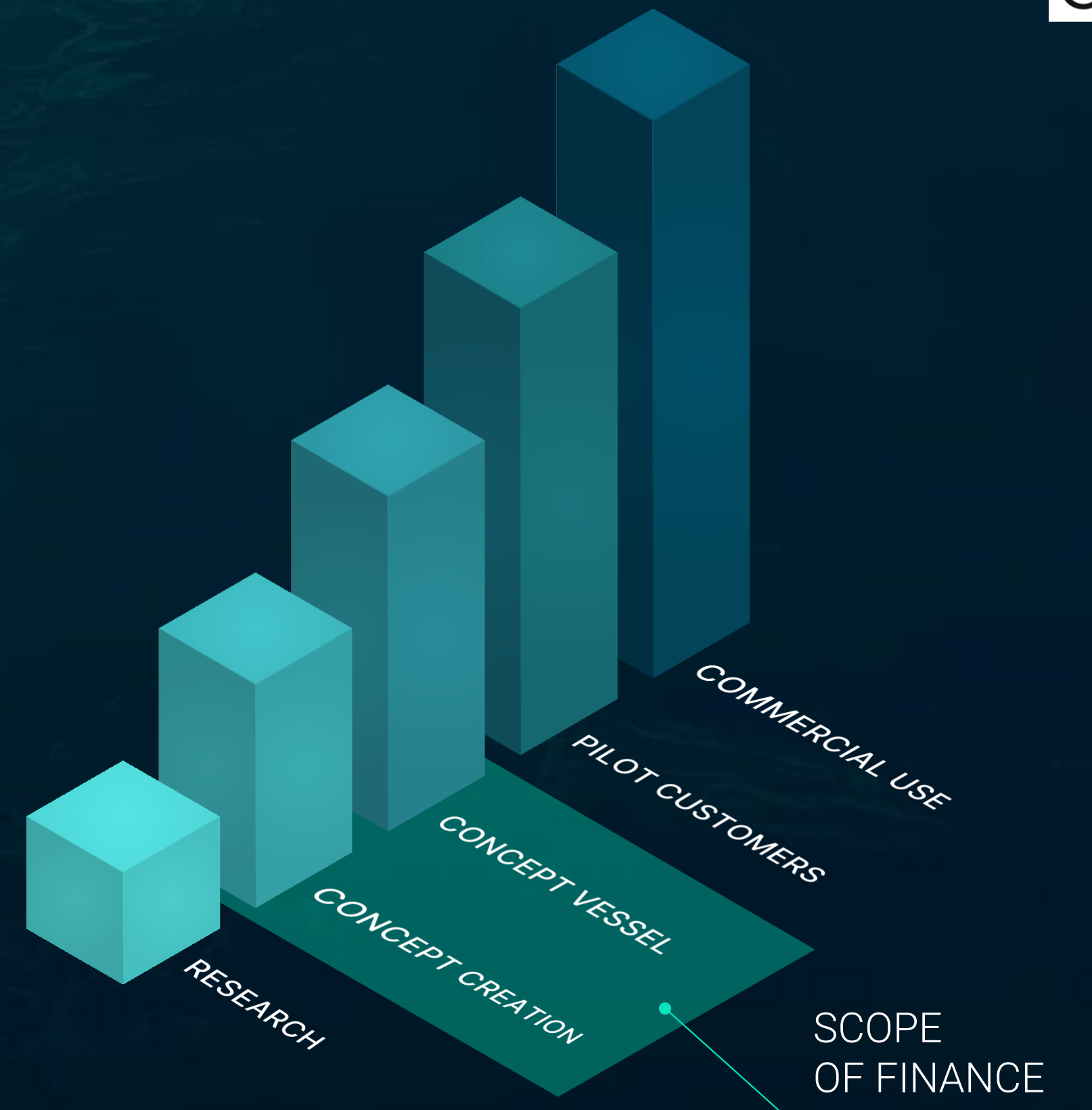
Average insurance premiums and provisions for oil spill cleanup costs.

**Day losses during** spill incidents:

**Oil shipping companies spent 1.7 billion dollars in 2023 every incident day.**

# Scope of Concept Plan

The background of this initiative traces back to research conducted by Lappeenranta University of Technology. Our objective is to leverage university research to establish a new global export enterprise in Finland.





# Our business model targets

## 1000 OliOil First Aid Kit in five years

### OliOil customers

- Shipping companies
- Harbors
- Oil platforms/Oil rigs



### Container OliOil First Aid Kit

- Equipment's
- Modeling of oil spill behavior
- Estimation of required resources
- Response planning



### Support as a Service

- Service and support center
- Maintenance services

Container 1 000 000 €		+ Full service 30-50 000 €/month	
5000 shipping companies	50,000 commercial vessels sail daily	3000 large commercial harbours	12,000 oil & gas platforms





# Go To Market Strategy

Key Components | Key Providers

Container:

- Arctic Container Oy
- Own team

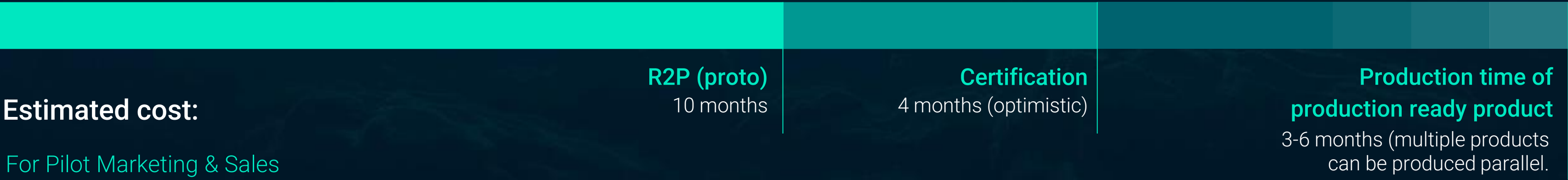
Vessel:

- Teknomarine
- Own team
- Mindship
- R2 Marine

Intelligence Application:

- Reaktor
- Own team
- TalTech

Timeline:



Estimated cost:

For Pilot Marketing & Sales

650.000 €

For prototype

2.000.000 €

For certification and field test

350.000 €





# – The path to global impact

**HELSINKI  
INCUBATORS**



**BUSINESS  
FINLAND**

**LUT  
University**

**A'PELAGO**

**ZEM  
ECOSYSTEM**

## **BUILT ON FINNISH KNOW-HOW ON OIL SPILL MANAGEMENT**

The background of this initiative traces back to research conducted by Lappeenranta University of Technology. Our objective is to leverage University research to establish a new global enterprise.

## **IMPACT**

Part of the World Economic Forum Initiative 1000 Ocean Startups together with A'Pelago Accelerator Helsinki University BIOSPHERE

## **ACCELERATING SUSTAINABLE IMPACT**

Business Finland and Wärtsilä Zero Emission Ecosystem



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