

Empowering Sustainable Decision-making in the Maritime Industry.

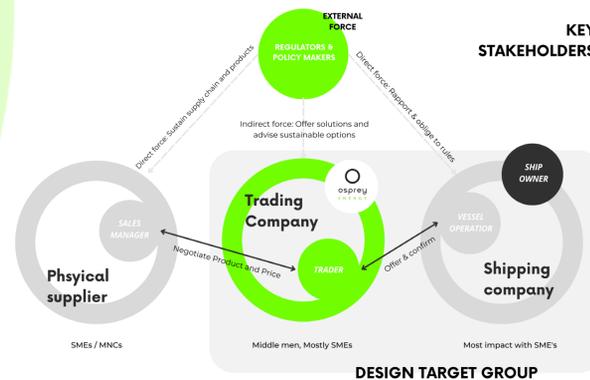
Research Question: How can a fuel-trading company use a simulation dashboard to communicate sustainability efforts more seamlessly to shipping companies, with the goal of achieving greater emission reductions?

Project Core Values: Strategic Communication - Clarity - Decisional Confidence - Workflow Integration - Actionability - Behavioral Motivation

Design Brief

As new maritime regulations are rolling out and pressure to reduce emissions intensifies, (SME) shipping companies face barriers in adopting low-carbon fuels. Fuel traders are indirectly affected by this shift and have the potential to play a pivotal role in the transition. Yet, they lack the tools and communication strategies to position low-carbon fuels effectively.

To stimulate this transition, this project focuses on designing a digital simulation tool that enhances strategic communication and supports informed and collaborative decision-making between the stakeholders: trading companies and shipping companies, as visualized in the stakeholder diagram on the right. The project followed the double-diamond design process.



Design Vision

“Support traders with a digital simulation tool that engages maritime fuel decision-makers in the assessment of sustainable fuel options, by providing **clear insights** into **simulated data** (costs and emissions outcomes). The tool enhances **engagement** in fuel decision-making by integrating **attractive** behavioural stimuli throughout the **relationship-building process** between parties.”

Design Goals

- Provide Clear and Accessible Data Insights
- Integrate Attractive Behaviour Stimuli to engage Stakeholders.
- Ensure Positive Communication between Parties.
- Support Informed Decision-Making for Sustainable Fuel Choices.
- Ensure Seamless Integration into the Relationship- Building Process.

Interim Result: Envisioned Scenarios & Matching Concept Ideas

Three envisioned scenarios were developed and translated into concept ideas to explore tool support in real work settings.

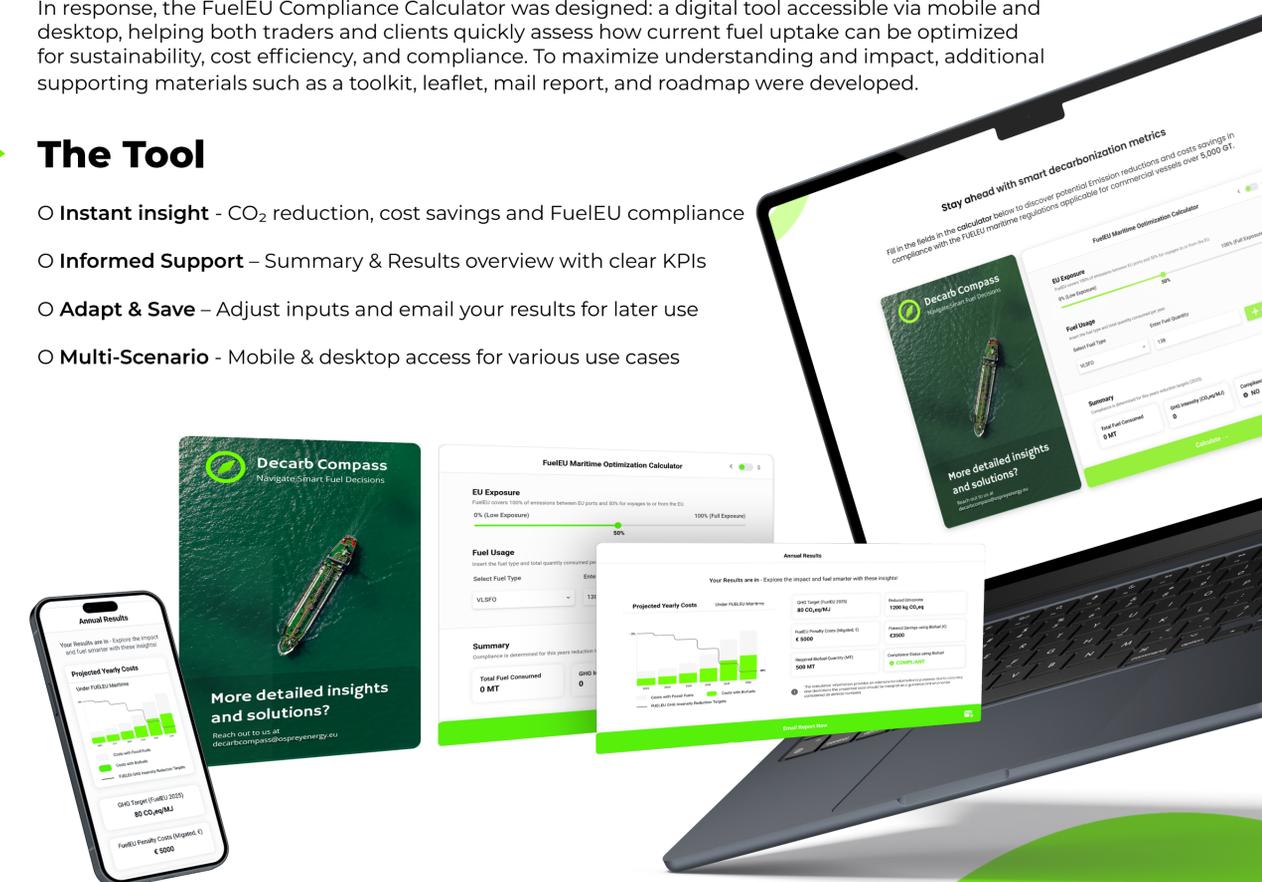


The Solution

Research with traders confirmed the need for a tool that builds trust, simplifies decision-making, and supports clear sustainability communication across varying client interactions. In response, the FuelEU Compliance Calculator was designed: a digital tool accessible via mobile and desktop, helping both traders and clients quickly assess how current fuel uptake can be optimized for sustainability, cost efficiency, and compliance. To maximize understanding and impact, additional supporting materials such as a toolkit, leaflet, mail report, and roadmap were developed.

The Tool

- **Instant insight** - CO₂ reduction, cost savings and FuelEU compliance
- **Informed Support** – Summary & Results overview with clear KPIs
- **Adapt & Save** – Adjust inputs and email your results for later use
- **Multi-Scenario** - Mobile & desktop access for various use cases



Supporting Materials

- **The Leaflet** visualizes key usage scenarios and clarifies the tool's value for traders.
- **The Email Report** makes results easy to share, review, and follow up
- **The Toolkit** provides FuelEU and tool guidance for both clients and traders.
- **The Roadmap** outlines future development and scaling of the tool.



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Designing a Socio-Digital Tool to Drive the Green
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