



CLIENT NEED...

The OC undertook to design a holistic idea for the protection of the seas from pollution in collaboration with the company RESTIA.

As the main concern the poisoning of the biodiversity of the seas, the project were established Charybdis, which promise the cleaning of the seas through the technology but also the revolutionary organic filters of Restia. Addressing this global problem is possible but must be adopted as well as synergies must be created to fully cover the seas.

The Charybdis robot has the ability to map the area. Through ultrasonic sensors, its movement is easier as it can map the altitude differences of the bottom and the underground walls of the port.

It also recognizes water currents and can predict the course of infection through augmented reality. This aims to warn the institutions for the protection of the environment but also to identify the guilty.

Charybdis can be used to monitor the state of the ecosystem through infectivity measurements but also through audiovisual material.

INDUSTRY

In the last century the travelling by sea from country to country but also the transport of products as well as oil has increased exponentially. There are accidents in many parts of the sea but we also have oil spills. This results in the destruction of the marine ecosystem and consequently the quality of our planet.

There was an average of 1.8 large oil spills from tanker incidents every year in the decade from 2010 to 2019. So far for 2020, there have been no noted oil spills in which more than 700 metric tons of oil was leaked. In the years since the 1970's the number of oil tanker spills has been notably reduced. In the 1970's there were often in excess of 20 large oil spills per year.

OUR INNOVATION

The Charybdis robot is the tool that can clean the seas of oils as well as the plastics.

Its name is inspired by the mythical monster in the Odyssey which sucked everything in its path.

The operation of this robot is simple, it creates a vortex and sucks the water holding the oils and the plastic garbage. It operates autonomously, as through augmented reality it recognizes its environment and follows the waste in order to collect it.

The Charybdis robot is equipped with automations for the smooth operation of itself and the port that roams.

Sensors:

- Obstacles down and forward
- Water current detection sensor
- Waste sorter filling sensor
- 5G antenna for communication



As a **design and innovation consultancy**, we did the followings:

- market research and competition
- brainstorm for a EV
- 10 ideas
- 5 concepts
- 2 CAD designs



WE AT ORANGE-CIRCLE

By creating a robotic machine that is equipped with artificial intelligence technologies and in collaboration with RESTIA where it has created biodegradable and ecological filters, we can protect our seas and our planet to a huge extent.

CREATIVE

Creativity and innovation go hand in hand to provide:

- user and market research
- product innovation and design
- UX and technology
- ideation workshop
- design execution

BUSINESS

With innovation as our guide we offer the following:

- local market research
- product strategy
- technology research
- employee workshop
- project execution

LET' S TALK!

We are an award winning innovation consultancy that creates solutions powered by creativity and business acumen.

Whether you're a multinational company, small business, or start-up, we can bring your projects to life.

CONTACT US
Email : info@orange-circle.com
Web: www.orange-circle.com

The founders combined management consulting and design to create ORANGE-CIRCLE. We believe that innovation and creativity (ORANGE) should have no boundaries or borders. Therefore, we bring the best to our clients from our global network (CIRCLE)