



# ELipSEA

 WAVE  
BUMPER

Predict & Prevent risks  
Protect coasts around the Globe

# Who we are, and what we stand for...

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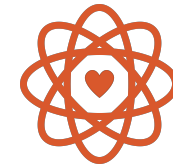
## OUR PURPOSE

Propose the most advanced technologies and robust defence equipment to **prevent & anticipate the risks associated with climate evolutions.**



## OUR VISION

Intelligence and innovation, to preserve the natural and **human assets** on the World's coastline.



## OUR VALUES

**Science & intelligence**  
**Shared responsibility** for the Planet  
**Long term commitment,** to solve the most complex problems



# The context which we address

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Climate evolutions threaten coastal ecosystems: IPCC's 6<sup>th</sup> report 2022

- 40% of the world population lives within 100km of the coastline
- The 60% which lives at less than 1m from sea level will be submerged before the end of 2080
- One Trillion Euros of GDP is produced on the coastline

On coasts, the human, economic, societal and environmental costs of global warming are colossal.

Marine submersion



Erosion



Cyclones, hurricanes, storms



# Our story begins in 2017, on the beach in Biarritz...



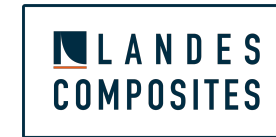
Where we imagine  
a break-through solution

*« Nine major storms hit the Basque country in 2014 causing significant material damages. In Biarritz, its casino had barely been restored at a cost of hundreds of thousands of Euros in January that it was hit again by submersion waves in March. Only sand dunes had been erected on the beach to protect it without success. I thought it was long time to try something else. »*

Romain Chapron, CEO



# Leader in coastal protection, ELIPSEA is...



## INNOVATING & SUSTAINABLE EQUIPEMENTS

The *Wave Bumper* range made of composites material: designed with a patented curve that enables an effective protection.



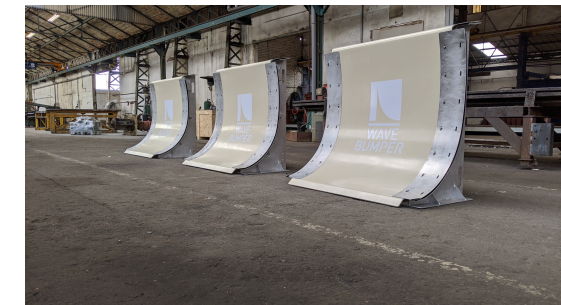
## A POWERFUL DIGITAL PLATFORM

Powered by Artificial Intelligence to predict, anticipate & prevent marine submersion and water rising risks, and provide the capacity to see - in augmented reality, the evolution of the coastline in time.



## A DEDICATED MANUFACTURING CAPACITY

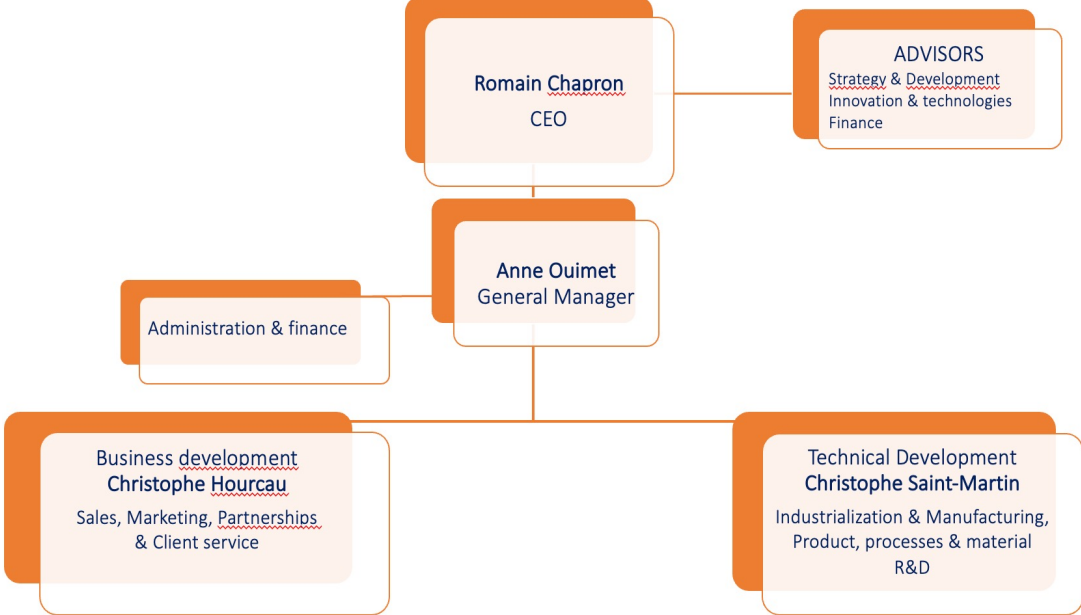
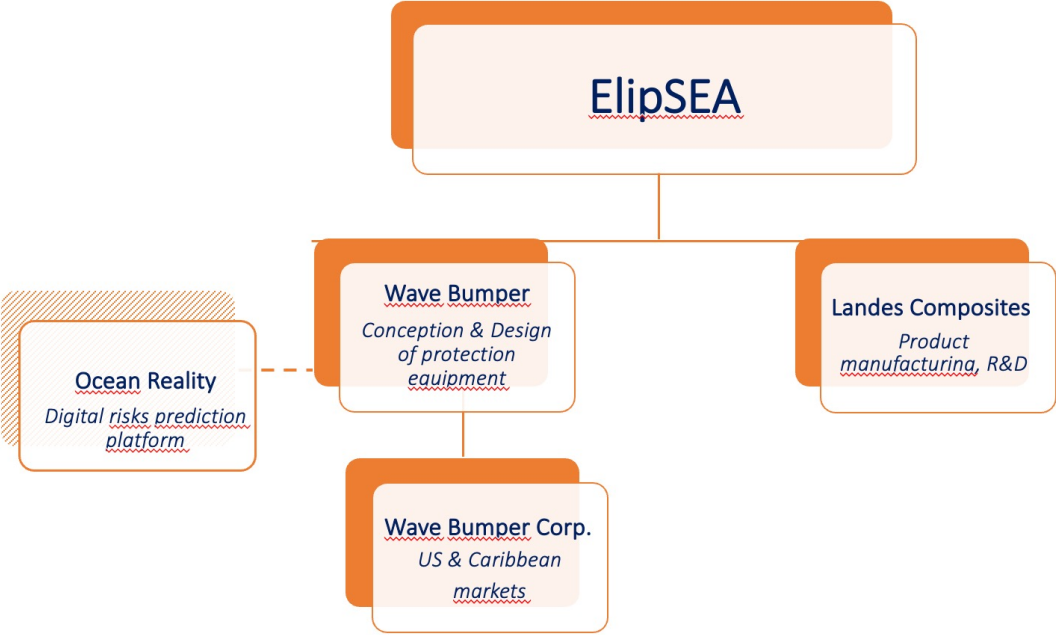
As of March 2022, our own **manufacturing capacity**, with the takeover of a composite materials plant where R&D will be carried out on both processes and materials.



THESE INNOVATING SOLUTIONS – EQUIPMENT & DIGITAL PLATFORM, ARE PROTECTED BY INTELLECTUAL PROPERTY RIGHTS ENTIRELY OWED BY ELIPSEA.



# Corporate structure & Organisation





# Core Wave Bumper team...

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## Romain Chapron - CEO

Self-made inventor and serial creator, Romain boasts 25 years of experience in the design and manufacturing of innovative nautical equipment, shipbuilding and composite materials.

## 8 employees, going on 15

A Managing Director

One Strategy & Development advisor

Expertise, Engagement & Creativity

- A close cooperation with world's top higher education and scientific institutions
- Real talent pool: trainees who grow within the company
- Women & men committed to coastal protection

# They entrusted their coastal assets to our protections...

**Private clients** include individual property owners and palaces, like the Majestic in Cannes, the Hôtel du Palais in Biarritz and the Eden Rock Hotel in Saint-Barthélemy, as well as large touristic operators.

**Our public or semi-public clients** include cities, Regions or public utilities in France & Spain, but also the Corps of Engineers of the American Armed Forces (USACE) in New York- USA, or the French National Railway company (SNCF).





# THE SNCF PROJECT

A breakthrough solution to solve the costly corrosion challenge...



## Paris - Barcelona railway line

- Continuously exposed to sea spray & submersion
- €2.2M in maintenance cost per km of line
- Wave Bumper solutions chosen by independant scientific advisors to protect the infrastructure
- Demonstrator: 1<sup>st</sup> phase initiated end 2021
- The *Climate & Resilience* (2021) and *Mobility Orientation* (2019) laws impose very short deadlines for the transport of freight and people by road or air to transfer to the rail.



# Partnerships, Research & Development: *Ocean Reality*

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Partnerships with research-intensive Universities, and institutions such as the European Space Agency for data collection, our design & technical team uses the power of artificial intelligence to calculate aggregated and complex data in order to modelize risks & design solutions that effectively prevent damages.



Wave Bumper develops *Ocean Reality*, a powerful digital platform that enables visualizing - in augmented reality, the evolution of a coastline over time, reflecting the impacts to which it is exposed. When fully developed for external use, *Ocean Reality* will also help decision-makers understand the current and future threat global warming presents to best anticipate risks.

**Protect what is currently under threat & prevent future destructions  
with sustainable land planning.**

This is the power of *Ocean Reality*: materialize current and future risk to enable informed decision-making to develop resilience on the coastal areas of the world.



# COMPETITION

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Entirely removable, the **unique shock-resistant coastline protection solution offers unlimited adaptability** and can be installed and uninstalled in a single tide lapse. This enables preserving sites and restoring their full integrity and use - unaltered, once blue skies return. On the contrary, **competing solutions usually rely upon public works** type of protection such as:

Sand bags, built dunes, riprap or concrete blocks, or wood panels in front of buildings to protect them;

Wood, aluminium or PVC shutters also attempt to prevent the damages caused by hurricanes.

- **Very limited protection and resistance** to impacts (objects or waves) and strong winds.
- **Accelerate natural erosion** while permanently damaging the natural or touristic enjoyment of a site.
- **Use a scarce and non renewable natural resource: sand.**



# Coastal protection market exceeds Bs€

## Metropolitan France, as an illustration...

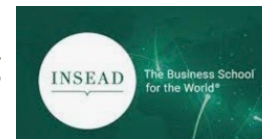
- ❑ 5000km of Metropolitan coasts for a Total Addressable Market TAM 5 Billion €
- ❑ 800km of these coasts are both urbanized and threatened by water rising or storm for a Serviceable Available Market 800 Millions €
- ❑ 80km of these coasts that are **vulnerable and can be effectively served by ElipSEA.** 80 Millions €



On July 9, 2021, the National Oceanic and Atmospheric Administration (NOAA) had already recorded more than 6B\$US in property damage suffered in the USA since year-start only due to floods and storms. And 21 deaths.

Nature Magazine : before end 21<sup>st</sup> century, up to 20% of the world's GDP will thus be directly threatened - and on a recurring basis, as a result of global warming. **Anticipating, preventing and reducing these costs is of strategic interest, and correlated commercial value.**

Winner of INSEAD Blue Ocean Award for successfully developing a completely novel market, with a disruptive solution





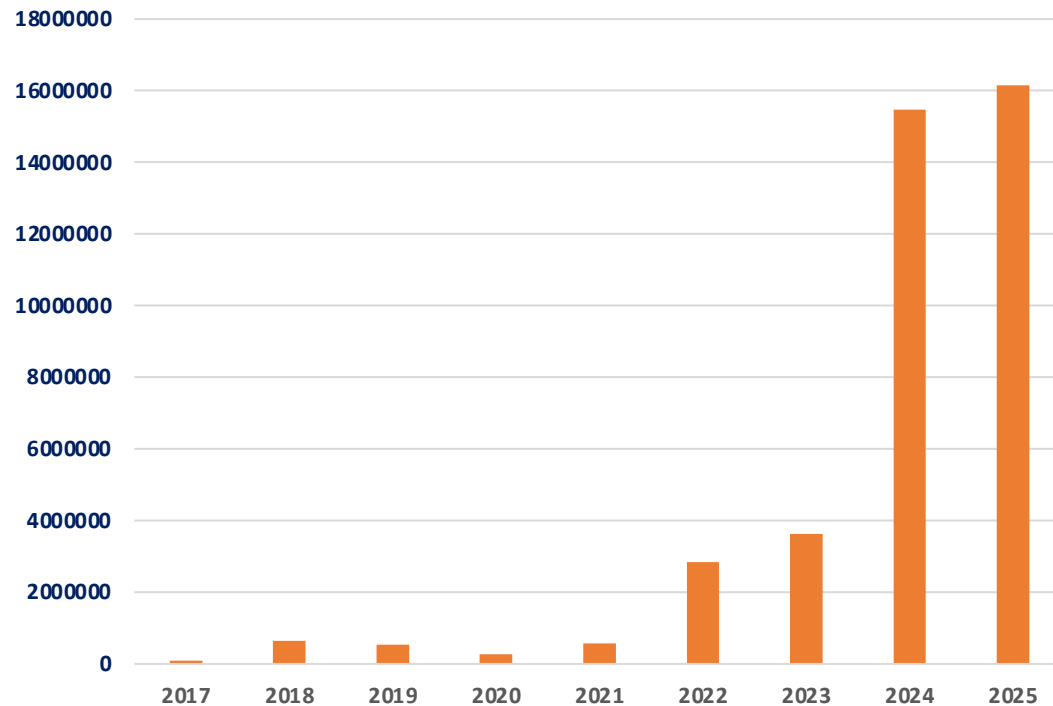
# Market segmentation

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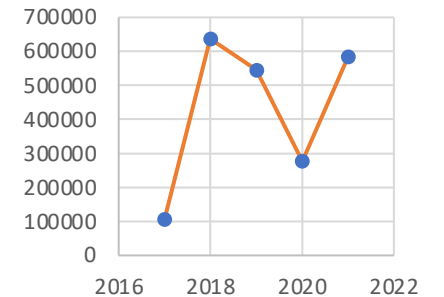
- Target markets for *Wave Bumper* equipment, the *Ocean Reality* digital platform, or other technological solutions are complementary, but distinct. Developed by sales-marketing teams with specific skills and expertise
- Wave Bumper range of equipment:
  - Revenues generated by sales of either in standard version in different models offering front-line protection, or in tailor-made versions to offer close protection to the most sensitive infrastructures.
  - Revenues generated the sale of studies to anticipate and quantify specific risks to which assets are exposed, and to dimension appropriate solutions.
  - Leasing also available.
- Ocean Reality digital platform: licences, subscriptions and studies will be sold.
- The public sector includes institutional clients - local, regional & national; purchasing processes linked to pre-authorized budgets & influenced by specific governance cycles (elections, nominations, public consultations).
- The parapublic or semi-public sector includes transport companies, energy companies or other customers offering goods or services of general interest; they buy to preserve their facilities or infrastructure.
- The private sector, either individual coastal asset owners or touristic operators.

# Evolution of turnover & 4-year forecast

Turn Over, in Euros



Mid 2019: local & regional elections are programmed for 2020, with a consequent freeze of all institutional decisions. Then March 2020, Covid measures prevent developing emerging Carabbean and US markets. Business is deeply hit.



Since September 2021: **+190k€ of orders registered** confirm the recovery and sets us back onto our initial growth trajectory.

Qualified pipeline: €18M

2023-24: the forecasts include the very big deals already qualified - SNCF, USACE, etc.



# Qualified sales funnel for 2022 & beyond

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**Total weighted pipe 2022: 1 155 775,66 €**

1. Client budget is confirmed
2. Technical validation of the solution was obtained
2. Absence of competition
3. Repeated sale (already sold to that client in the past)
4. Only commercial opportunities that were developed in France were included
5. The growth registered during 4Q21 confirms the forecast is realistic (transfo rate : 27%)
6. A commercial offer was submitted for each one of the commercial opportunity included in the forecast, and clients' decision-making process engaged.

