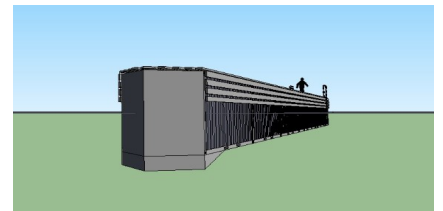
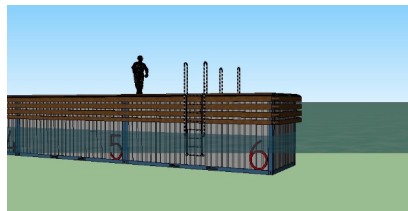
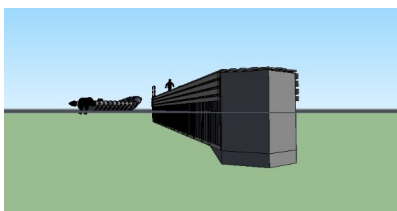




## SUMMARY

### SEABREATH SRL 130 feet PROTOTYPE



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## INTRODUCTION

### Seabreath wave energy is a new high efficiency technology producing energy from the sea

It represents the evolution and optimisation of the OWC (oscillating water column) family of wave energy converters with approximately double efficiency. The OWC over the years has ensured higher reliability and production levels and attracted more than half of the studies in the entire wave energy industry. It is a significant and innovative step forward in the state of the art and can make this source a reality, thanks to low costs, efficiency, unprecedented production levels and reliability under adverse conditions

In addition to this project already in TRL6, we are looking for collaborations or interested in developing our new ideas for a smart anchorage, for a low-cost modular structure for offshore wind, for a new umbelican, for a modular lattice and tubular structure, for a new swing-stop and more related to marine energy



## HISTORY

- 2008 - after decades of studies, seabreath was granted an Italian industrial patent
- 2008 - it was european patent for three years an for 15 years Italian patent.
- 2009 - it was tested in the laboratories of the University of Padua, was successfully presented at several international conferences in the field and it was the subject of different thesis
- 2010 - seabreath was in exposition at the Italian Pavilion Shanghai Expo
- 2011 - silver medal at the IV International Fair of the Inventions of the Middle East – Kuwait City
- 2012 - Confindustria Lamarck SMAU Award
- 2012 - second place at the International Marevivo competition
- 2012 to 2024 - Seabreath had, and continues to have, several international experiences, collaborations and expositions in fairs like Ecomondo, Key Energy and Pollutec

## PROBLEM DETECTED

The other wave energy solution are **up to 5 times more expensive** than other energy sources,, with higher risks and more manutention which makes wave energy uncompetitive and therefore difficult to commercialise.

## SOLUTION

### EFFICIENCY

Compared to other devices, the difference is the high efficiency and production level. The efficiency is about double that of other OWC systems

### LOW COSTS

The system is designed to have minimal implementation, transport, installation and maintenance costs

### VERSATILITY

high versatility of construction, shipping, assembly, installation and sizing according to the chosen site with very low costs

### COAST PROTECTION

the device has Break-Water functions against the coast erosion

### CREATION OF USABLE SPACE

The next scale realisations will look like a floating pier that can be used for different types of activities







### ENVIRONMENTAL SUSTAINABILITY

The production of energy from renewable sources, the use of recycled or recyclable and non-polluting materials, the protection of the coastline and the repopulation function of the installation area for flora and fauna, and environmental sustainability are all aspects of this project. The environmental impact is almost zero, if not positive

### SURVIVOL TO EXTREME CONTITIONS

The device has an emergency system, a very robust structure and is designed to withstand 30-metre waves

## TEAM

-  **doctor in economics and trade** - inventor of the device: general management and designing
-  **mechanical engineer** - inventor, scientist: design and technical direction
-  **naval engineer** - designer, tester: designing
-  **industrial engineer** - expert in green economy: research materials, market and logistics
-  **electronic engineer** - electrical and electronic design
-  **designer** - graphic and industrial design
-  **specialized technicians** - support for technical realizations
-  collaborations  
**design companies special marine constructions:** overhaul, anchorage and technical advice  
**design center and research on renewable sources:** electrical and electronic design

## LOGISTICS

A commercial, administrative and R&D representative office will be located in Venice, 200 metres from the centre, in a dock with a park, many other facilities and where another wave energy converter was tested years ago.

Our main technical partner is very close and reachable by sea.

The production site will be located in Mestre, where there is a supply of unused facilities.

The registered office is located in Parma

## MARKET AND TRACTION

The target market is worldwide and clearly large. Possible main customers are: public administrations, energy companies, oil platforms, private individuals located along the coast, especially if they are far from the grid and supply sources.

A possible demand for the devices could come from the Colombian government of Nariño, where there is a long stretch of coastline with an ideal wave 24 hours a day for 12 months and where there is a power generation problem for the local population. Years ago, the design of the prototype was about to start with the collaboration of the University of Narino and other Italian universities, interested in providing renewable energy in the Tumaco area.

Another interesting traction could be the Indian state Government of West Bengal, which has expressed interest in the project because of the problem of clean energy and coastal erosion, and with which there have been contacts in person with the Research Centre in Kolkata.

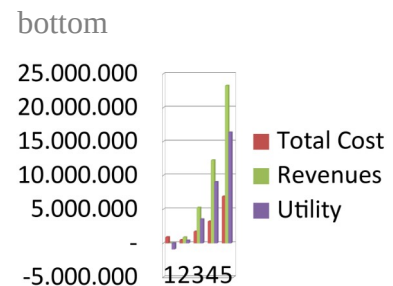
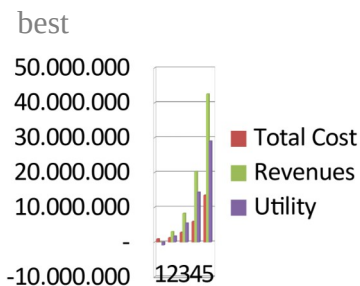
## TIMING AND FINANCIAL PLAN

The funds for the construction of the 30-metre prototype on a 1:1 scale are estimated at EUR 1 million for a period of 17 months, as per the Gantt below:

Attività	Inizio	Fine	Mese																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Start preparation			■																	
Draft				■	■	■														
Operational project and analysis						■	■	■	■	■	■									
Shopping equipment			■	■	■	■	■	■	■	■	■									
Purchase materials and pieces					■	■	■	■	■	■	■									
Structure construction									■	■	■	■	■	■						
Mooring and installation												■	■	■	■					
Tests															■	■	■	■	■	
Turbine study and realization			■	■	■	■	■	■	■	■	■	■	■	■	■					
Design studio					■	■														
Electronic design and electrical system			■	■	■	■	■	■	■	■	■	■	■	■	■	■				
Optimization														■	■	■	■	■	■	
Synthetic budget																				
Cost items			Month																	
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	total
Amount to be financed in the months			106.000	52.000	69.000	71.000	102.500	70.500	71.500	43.500	47.000	40.000	55.000	48.000	39.000	61.500	31.500	36.500	55.500	€ 1.000.000
PROTOTYPE Capex and Opex																				
CAPEX		419.750																		
Technical instruments, materials, research		396.500																		
Contingency fund capex		23.250																		
OPEX		580.250																		
Personal cost		269.000																		
Administrative cost		23.000																		
Third party services		248.000																		
Other Cost		17.000																		
Contingency fund opex		23.250																		
Total Cost		1.000.000																		

- Amounts can be disbursed monthly
- There are frequent public tenders for the sector that provide funding even up to 100% of the research costs incurred
- Current legislation provides for an unconditional tax deduction of 50% of the costs incurred in the R&D phase
- Engineers and special collaborators participating in the project will receive an incentive and a supplement of their remuneration in shares totalling 4% of the share; 5% is reserved for a private investor.

Financial projection scenarios after 4 years:



## BUSINESS MODEL

At the end of all experiments and approvals, it will be possible to have revenues from the sale, installation and maintenance of the devices even with a franchising strategy, as it is necessary to have a partner close to the installation site.

A further source of revenue, given the vastness of the market and the impossibility of covering all future demand, may be the commercialisation of technologies that can significantly lower the pay back period.

There will be the possibility of other revenues for ship maintenance carried out for a dock of 300 berths and for a part of Venice that lacks this service.

## RISKS MANAGEMENT

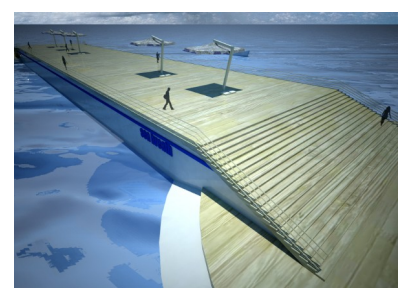
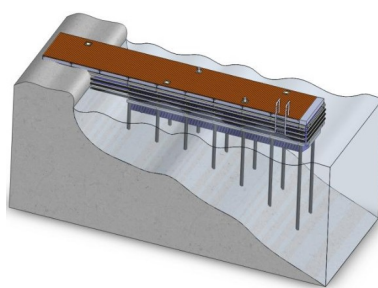
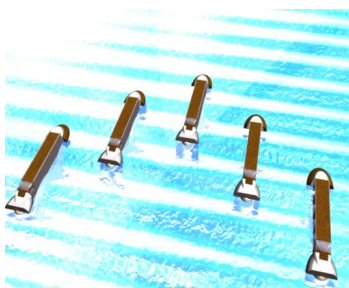
IT and general security will be improved.

## EXIT

The shareholder who no longer wants to be part of Seabreath can offer his share, in pre-emption and at the same acquisition price, to other shareholders or to the company (which will no longer have to bear any extraordinary and unnecessary costs to raise the necessary resources), or can go to the market without any restrictions.

M&A proposals will be evaluated as well as other exit options

## ADDITIONAL POSSIBLE FUTURE DEVELOPMENTS



- Factories of multiple devices
- Long-size devices
- Fixed devices connected to the coast (piers)
- Large industrial type oceanic device
- Non-anchored oceanic devices for **hydrogen** production

## JUMP INTO SEABREATH SRL

- We share 30% of the social share against a financing of EUR 1M, as shown in the table above,
- If the transfer is not in one lump sum, the amounts can also be paid monthly, revalued on steel quotation.
- A second round of fundraising will take place after the tests, for another 10% of our shares with pro-rata right, to finance the start-up of all activities related to the production and commercialisation of the products and technology.

On the website you can find: a presentation, a video, a Business Plan (not updated), reports from the University of Padua study, abstracts of some conferences, information on wave energy and publications.

### In Deep:

[Publications](#)

[Documents](#)

[Awards](#)

[Wave energy](#)

Thank you  
confidential document

## CONTACT

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Parma- ITALY 10/04/2024