



seabreath<sup>®</sup>  
wave energy

**innovative startup** seabreath s.r.l. unipersonale



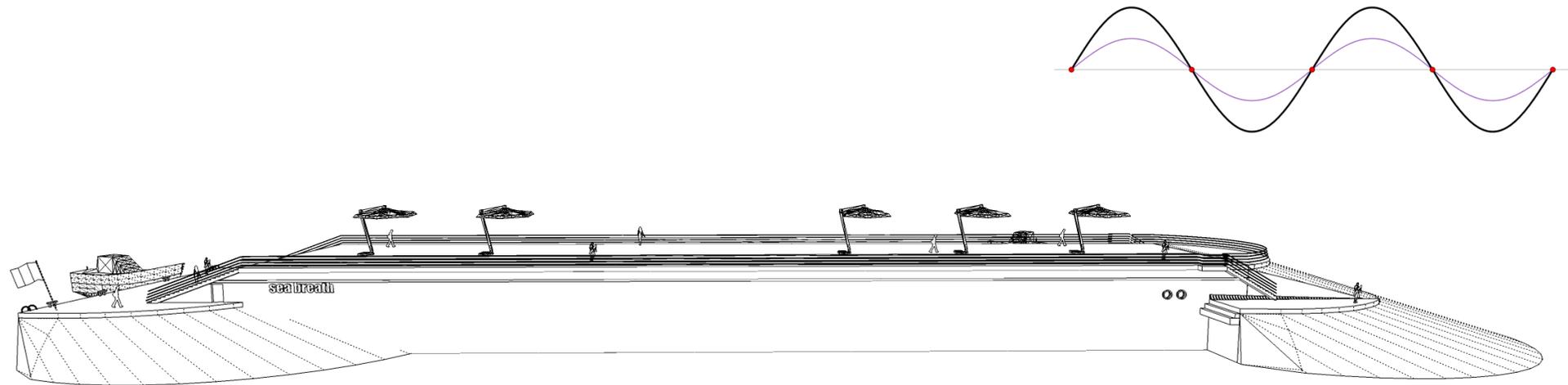
# energy from the waves of the sea

Seabreath is a new business idea for the development, production and marketing of an innovative wave motion converter (WEC), which perfects the exploitation of the OWC (Oscillating Water Column).



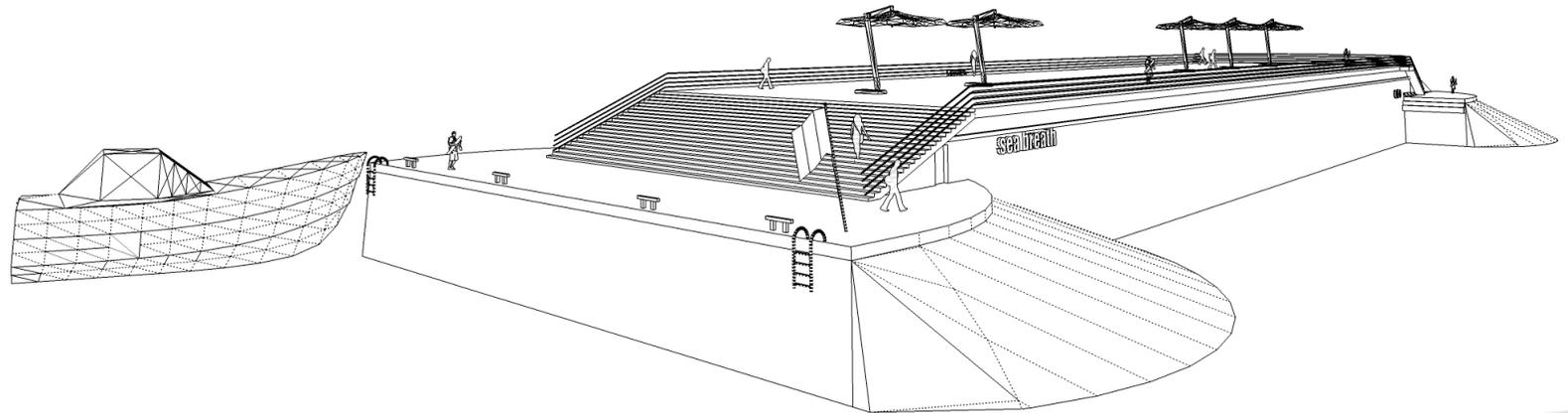
# doubling of efficiency

The peculiarity of the device is that it generates to unidirectional and continuous air flow that allows the use of high-performance turbines, with maximum simplicity and strength of the structure.



# economy and versatility of use

Thanks to its technical characteristics, an double efficiency compared to the competition has been estimated.  
It is a customizable modular system that is easy to transport and install.



# protection and respect for the environment

uses recycled containers for transportation and construction of the structure

favors the repopulation of the marine environment

it contrasts the erosion of the coast

the materials used will preferably be recycled or recyclable



# competitive advantages

high efficiency

high resistance to adverse conditions (survivor)

break-water function

creation of usable space

low environmental impact

modular system with low production costs, transport and installation



# relevant events

2008 - Filing of the patent

2009 - Test at the University of Padua

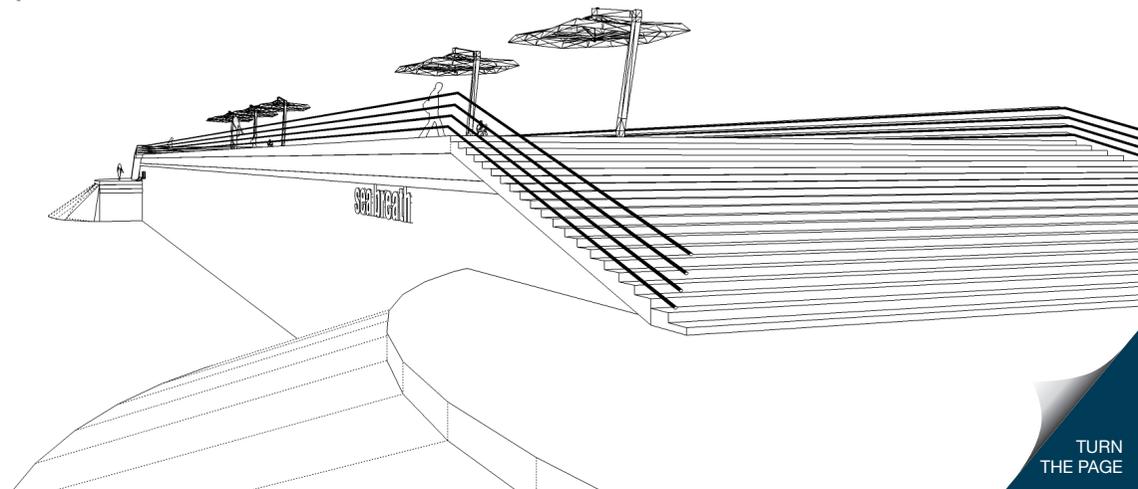
2010 - Exhibited at the Italian pavilion at the Shanghai Expo

2011 - Silver medal at the IV International Fair of the Middle East Inventions

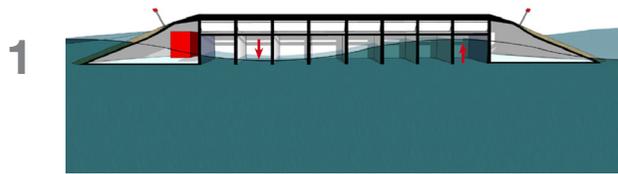
2011 - Second place in the international competition «Marevivo »

2012 - On display at the SMAU in Bari, SMAU in Milan and Winner of the Confindustria Lamarck award

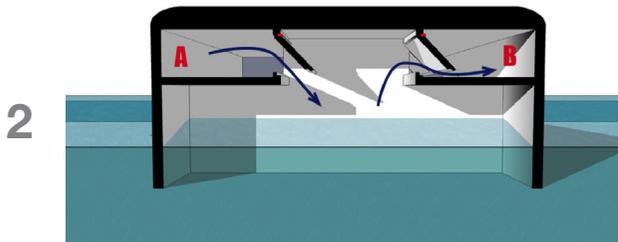
2018 - Constitution of seabreath Srl innovative startup



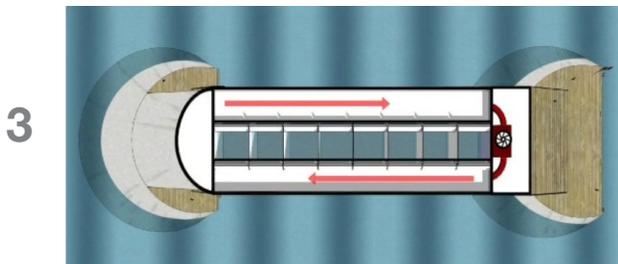
# operation



the wave varies the level in the sectors and for optimal functioning the device must be as long as the wave length



when the level rises, the air is pushed into the delivery pipe to the turbine; when the level drops, the air is drawn in by the exhaust pipe



this creates a unidirectional and continuous air flow that optimizes the exploitation of the OWC (oscillating water column)

# the 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

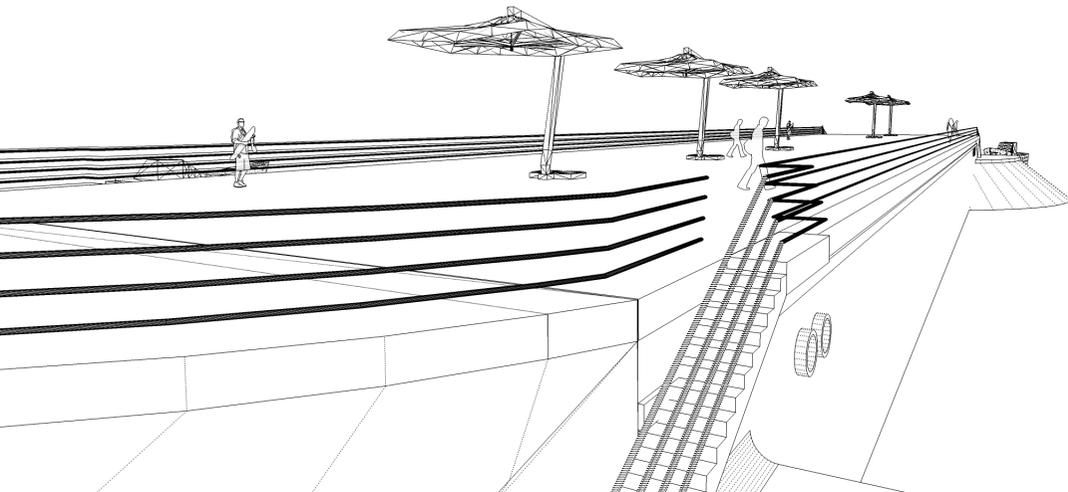


registered office: **Parma**

headquarters and research laboratory: **Venice**

first tests: **Venice**

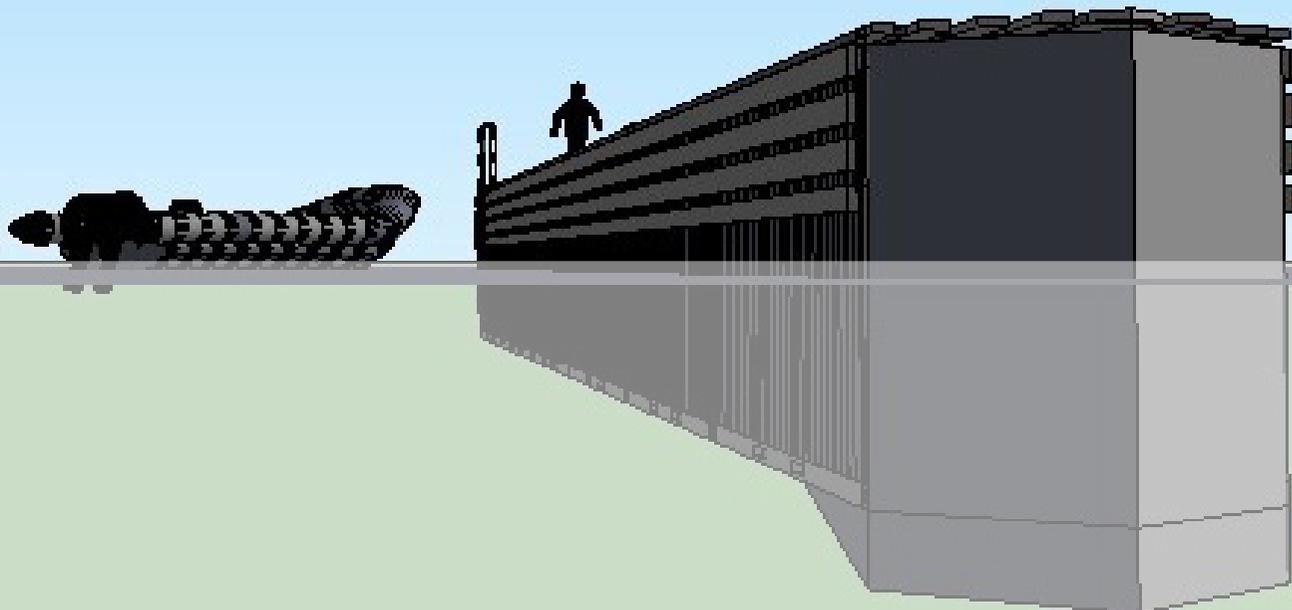
production plants: **Mestre**

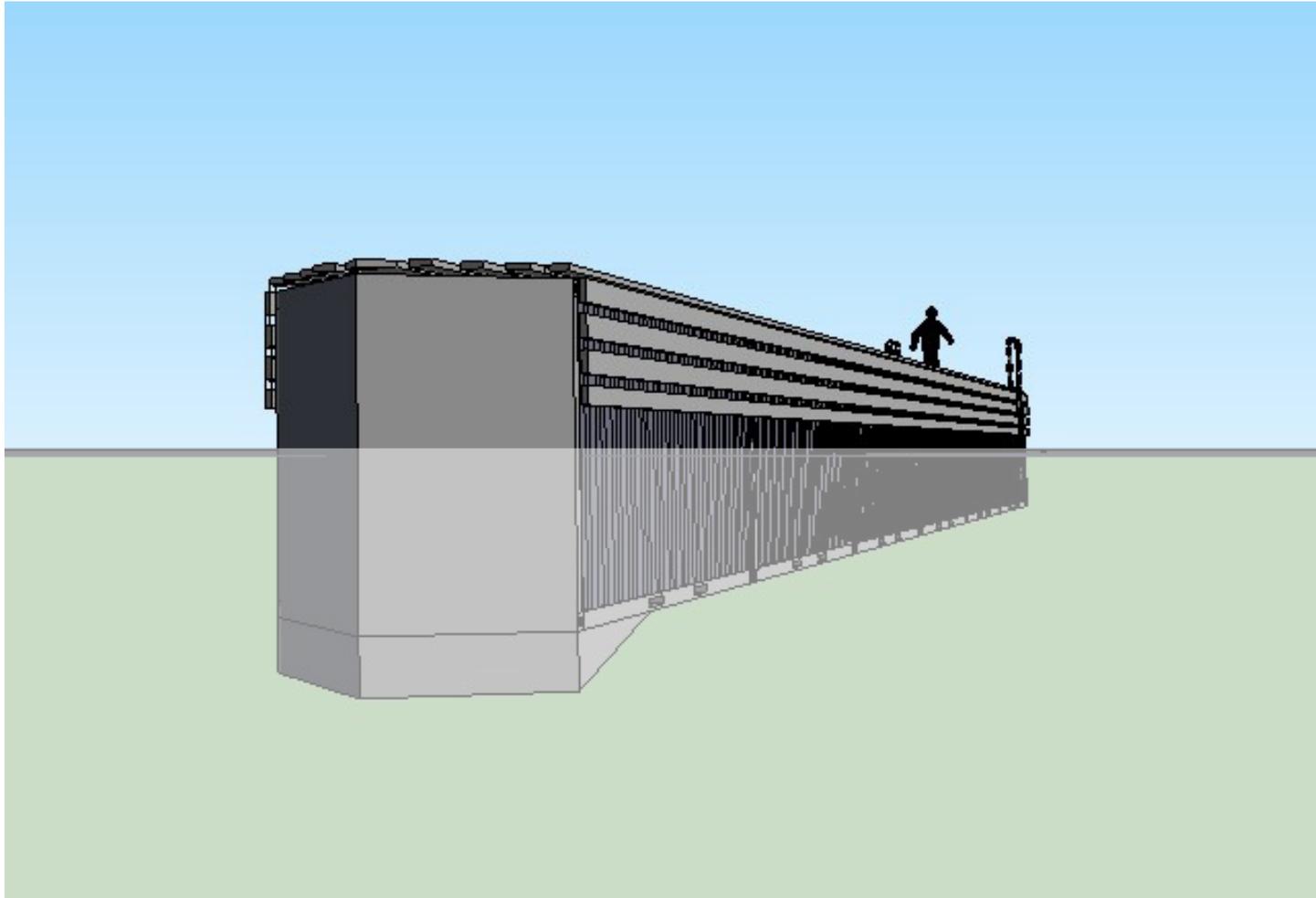




# 30m prototype

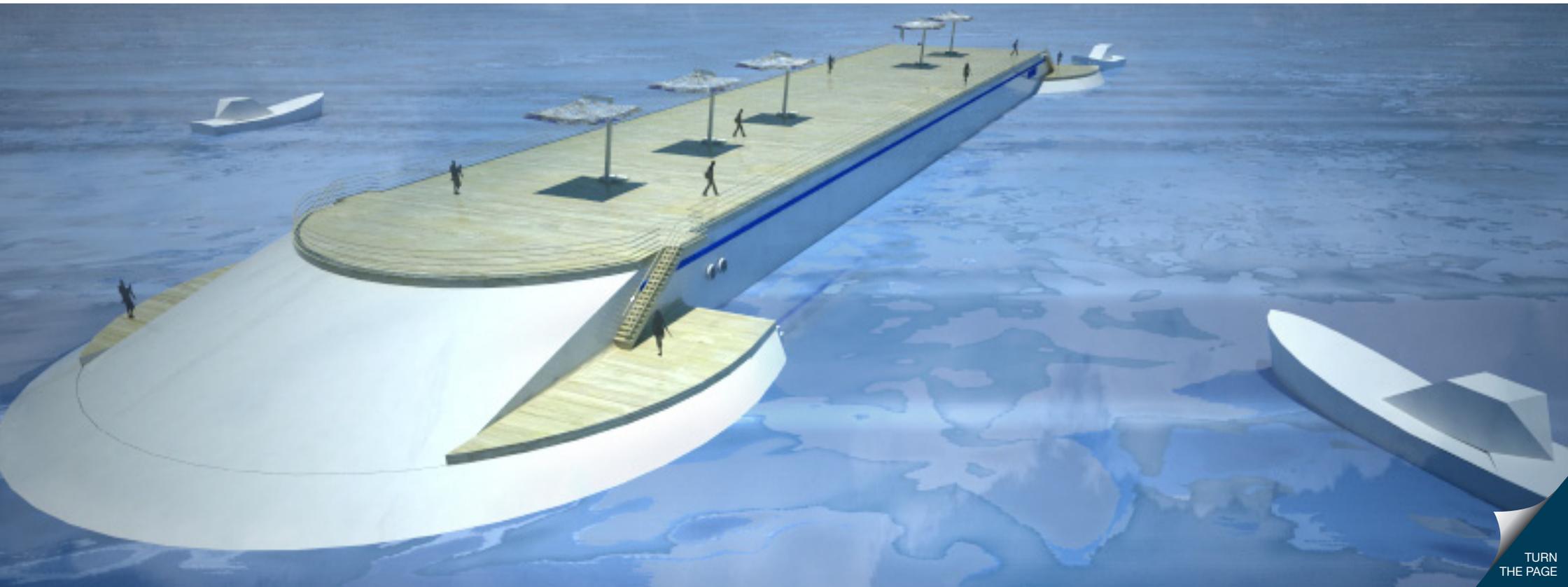
next realization: prototype with recycled containers

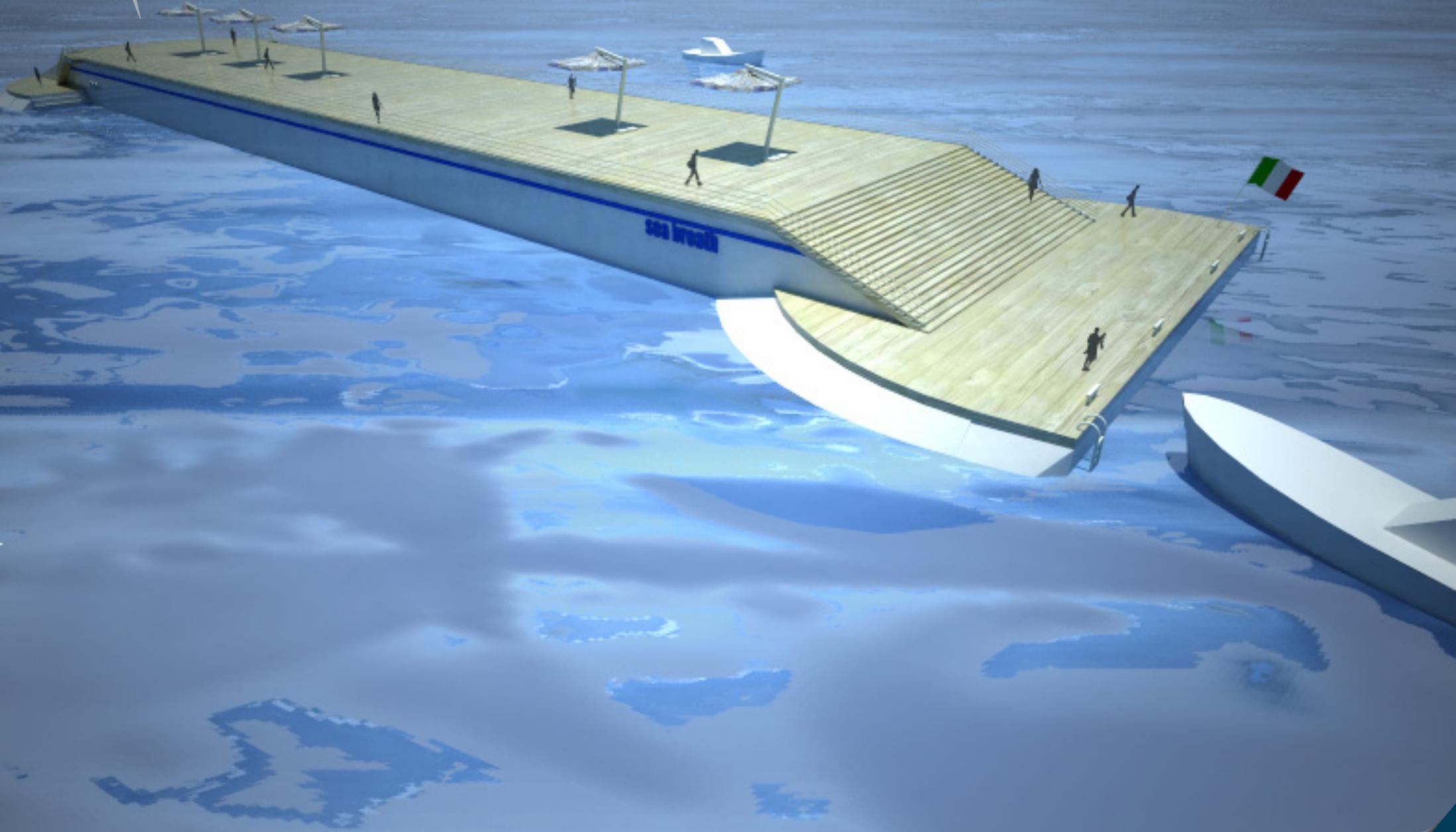




# oceanic device

future realization





# prizes and awards



**Secondo classificato**

Concorso di idee:

“Le energie rinnovabili per le isole minori  
e le aree marine protette italiane”

Edizione 2011

Presentato da UNIPR come E-Pier installazione  
isola della Palmaria (SP)



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