

# DEVICE AND PROCEDURE FOR PRODUCING ENERGY FROM WAVE MOTION

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The SeAbacus is a floating wave energy converter of the point absorber type. It is efficient even in low-energy climates thanks to its modest inertia. It is scalable, small, modular and therefore installable in parks and at different depths.

**Protection:** Italy, with the possibility to extend internationally

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## INVENTION

There are thousands of different patents for wave energy converters. However, very few have passed long-term offshore tests and even fewer commercialization, due to numerous technical elements that still make the production of wave energy excessively expensive (e.g. poor conversion efficiency, use of expensive raw materials, construction of highly inertial devices, need of bespoke facilities for the construction, very complex moorings, etc.).

The SeAbacus is a floating device, therefore it does not require the construction of fixed and impacting structures on the shore or on the seabed. The innovativeness of the device lies in the simultaneous realization of the following conditions: i) the device allows to obtain energy from waves coming from all directions; ii) it is made with recycled/recyclable materials; iii) it is modular and can be integrated into existing platforms; iv) it has low inertia to generate electricity even in mild seas; v) it does not contain any exposed parts, to avoid the formation of debris in the sea; vi) it can be installed in shallow to deep waters; vii) it has a simple geometry (to minimize production costs and it can be easily disassembled).

## ADVANTAGES

- High energy conversion efficiency
- Device modularity
- Power production also in mild wave climate
- Device scalability
- Low environmental impact

## CONTACTS

Knowledge Transfer Office

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## APPLICATIONS

- Provide energy to ports and coastal communities
- Supply energy to small islands
- Integrate into hybrid installations



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