Our Project

Our system is devised to absorb sea waves in order to mitigate coastal erosion. It is composed of a grid of pendulums of a material less dense than water, anchored to the seabed and kept completely submerged. The pendulums are forced by the waves and dissipate their energy by friction with water, thus damping the waves. Wave suppression is maximized by the grid geometry of the system.

Our device is simple to produce and deploy. Both production and deployment can be carried out without further technological investment by maritime engineering companies.
The low costs make METAREEF an interesting engineering solution both for harbors and for the administrations of coastal towns where beach erosion is critical.
METAREEF is completely submerged, it has no impact on the landscape and on the ecosystem. It is particularly suited for touristically attractive locations.

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LABORATORY TESTS [2]

LIMITS OF CURRENT TECHNOLOGIES [3]

NUMERICAL SIMULATION [4]

Links
[1] http://www.waveabsorber.unito.it/en/content/coastal-erosion
[2] http://www.waveabsorber.unito.it/en/content/laboratory-tests
[3] http://www.waveabsorber.unito.it/en/content/limits-current-technologies
[4] http://www.waveabsorber.unito.it/en/content/numerical-simulation