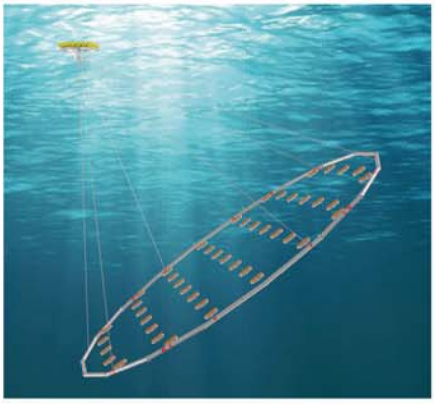
3D-T: Very large mooring construction and deployment

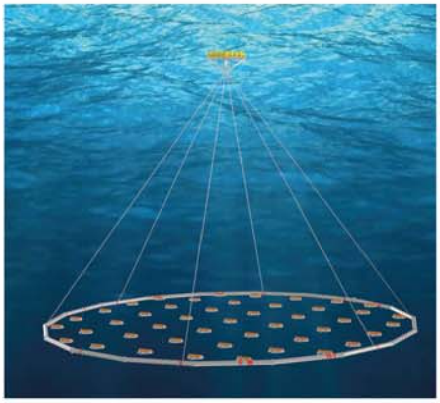
Purpose: The study of three-dimensional development of breaking underwater waves and turbulence and effects on the distribution of substances in the deep sea.

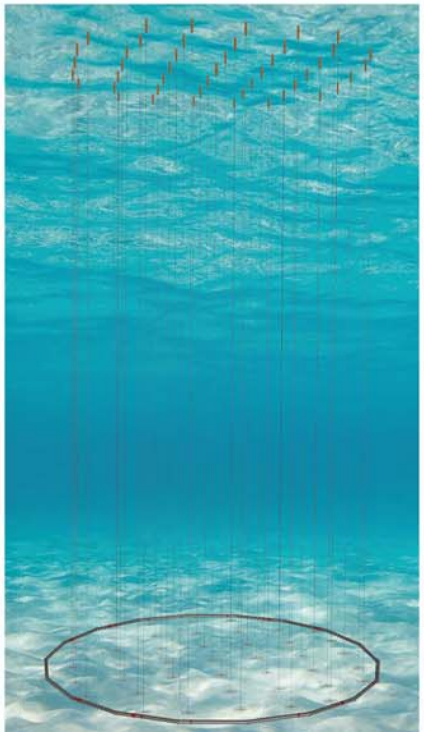
Means: The deployment of 70 m diameter large ring containing 3000 high-precision temperature sensors distributed over 45 vertical lines 125 m high and 9.5 m apart. The sensors measure water temperature with a precision better than 0.0005°C, every 2 s synchronous to within ±0.01 s. The whole fills a half cubic hectometer seawater volume. The unique mooring is expected to remain underwater for 3 years.

Where: At 2500 m water depth, at the foot of the southern French continental slope of the Mediterranean, an area known for various currents and turbulent eddies. The location is next to the underwater neutrino telescopes KM3NeT and ANTARES.

How: Build-up in harbor, the floating ring will be towed to position and sunk to the sea floor controlled by a custom-made parachute. The compacted lines will unfold via automatic release of the top--buoys after 5 days at the seafloor.







Who: NIOZ, Royal Netherlands Institute for Sea Research. Departments Ocean Science and National Marine Facilities.

Financial support: The Dutch Research Council (NWO) within the framework of the large-scale infrastructure European project KM3NeT.

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