

Open-Sea Breakwater: green light for new layout

30 January 2025



The Local Planning Board has given the go-ahead to the project plan variation submitted by the Port Authority for the construction of Genoa's New Breakwater. The revised layout has been designed to ensure the safe navigation across the Sampierdarena basin on the part of the ultra-large vessels and, simultaneously, to allow for the implementation in parallel of the two executive phases, which had originally been planned as a continuous process, resulting in a sharp reduction in construction programme time and in an improved operational efficiency.

In response to the conclusions of further in-depth analysis conducted during the executive design phase to evaluate wave climate, across advanced ship manoeuvre simulation systems and mathematical models, a variation to the layout was identified for an optimised use of the new East and West harbour entrances.

To the east, it has been ascertained that a combination of the reduced length of the outerwall and a review of the angle of the inner wall can reduce the intensity of wave action along the deepwater navigation channel and expand the width of the turning basin, thereby improving safety and generating a reduction in construction costs.

To the west, an extension of the outerwall and reduction of the innerwall, point to a subsequent expansion of both the width of the harbour entrance and the radius of the turning basin, to allow ships up to 270 metres in length to manoeuvre in full safety. This variation to the layout is set to provide an alternative harbour entrance into the Sampierdarena basin, to the current single entrance from the east. It will henceforth be possible to redistribute incoming and outgoing vessels across two separate harbour entrances.