

This is the 30th [newsletter](#) of the *Knowledge Centre Manoeuvring in Shallow and Confined Water*, which aims to consolidate, extend and disseminate knowledge on the behaviour of ships in shallow and confined water. This newsletter announces the new set of benchmark data for ship manoeuvring in waves. A second item discusses two nautical screening projects.

After successful conferences on bank effects, ship-ship interaction, ship behaviour in locks and ship-bottom interaction, the [5th MASHCON](#) conference will have a non-exclusive focus on wind, waves and current action on manoeuvring ships. A clear understanding of ship manoeuvring characteristics in waves, wind and currents is essential both in everyday operations and for ship safety in adverse conditions. To open a joined research effort on the validation and verification of the different research methods, the Knowledge Centre Manoeuvring in Shallow and Confined Water has selected model test data which were obtained during the execution of seakeeping tests with the DTC container carrier in the framework of the [European SHOPERA project](#). The benchmark data are both captive and free running model tests with the DTC at full draft in calm water and in waves. The benchmark data are [available upon request](#) for interested parties and in particular for researchers wishing to validate numerical tools.



Researchers of the Knowledge Centre have recently participated in two so-called *nautical screenings*. These nautical screenings are a small part of [complex infrastructure projects](#), which follow an integrated methodology outlined by the Flemish Government. The objective is to achieve results within a reasonable amount of time, while simultaneously involving the society at large. The progress of these projects can be consulted by everybody on the dedicated project websites.

The [first project](#) looks for improved access to the hinterland of the Port of Zeebrugge. Shipping traffic at present passes solely through the Pierre Vandammelock, the older Visart lock being obsolete. Due to maintenance requirements, the Pierre Vandammelock will not be accessible in the near future. Several possible locations for a new lock were therefore evaluated by means of real time simulations by researchers of the Knowledge Centre in close collaboration with coastal and docking pilots and tugboat captains. A car carrier, with a length of 265 m and a width of 40 m, manoeuvring in wind conditions of 5 Bf, thus requiring constant tugboat assistance, was selected for this case study. The nautical screening is ongoing, but it is already clear that each location has its advantages and disadvantages.



The [second project](#) is concerned with a nautical screening of suitable locations for new container terminals in the Port of Antwerp. The new terminals are very important in the development to enlarge the container handling capacity of the port with 7 million TEU by 2030. A desk study is being carried out by a team of expert members, composed of researchers of the Knowledge Centre and representatives of the river and docking pilots. The manoeuvring options of a selected design ship are investigated, along with the traffic characteristics for a fleet of ships. The design ship is a container carrier of the future with a length of 430 m and a breadth of 62 m. Several criteria are taken into account, such as the impact of wind, current and tide, turning and mooring manoeuvres, and the passing of locks and moored ships.

Minister of Mobility and Public Works Ben Weyts attended the turf cutting ceremony on 27 February 2017 to mark the start of the construction of [Flanders Maritime Laboratory](#) in Ostend. The laboratory will include a 174 m long 20 m wide shallow water [towing tank](#) and a wave basin and is scheduled to be fully operational by 2020. A technical visit to the new maritime research gives you another reason to attend the [5th MASHCON](#) conference, which will be held in Ostend from 20 to 22 May 2019 !



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