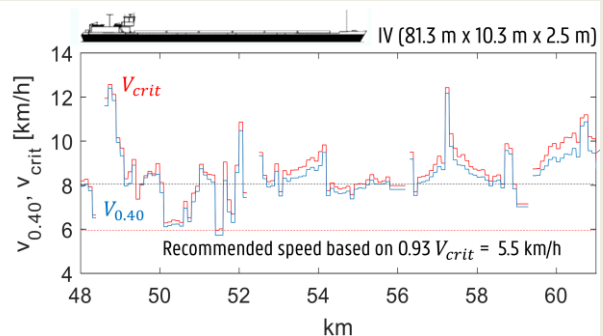


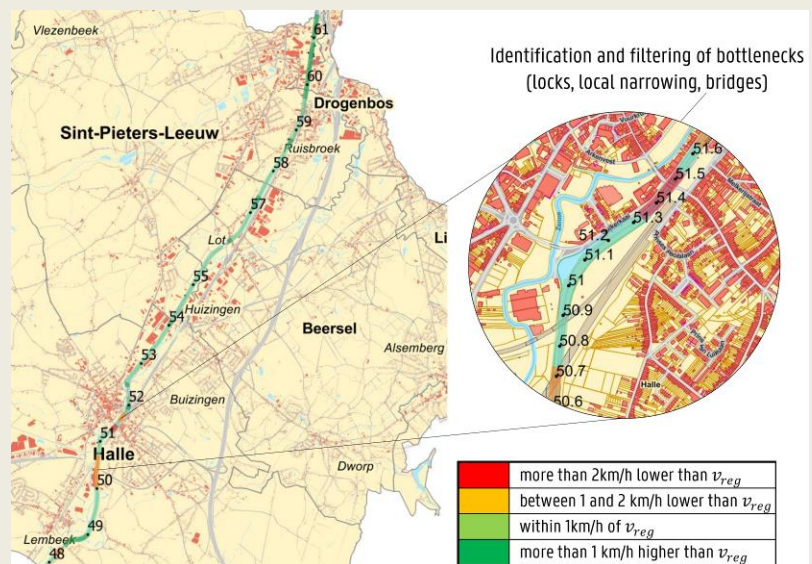
This is the 33rd [newsletter](#) of the *Knowledge Centre Manoeuvring in Shallow and Confined Water*, which aims to consolidate, extend and disseminate knowledge on the behaviour of ships in shallow and confined water. This newsletter presents an item on a study that was carried out to recommend speed limits for the Flemish Waterways.

The Knowledge Centre wishes you a Merry Christmas and a Happy 2018.

The regulations with respect to the maximum allowed speed of inland vessels in the waterway network in Flanders are not always adapted to the present fleet and waterway dimensions. Researchers associated with the Knowledge Centre were requested by the two waterway authorities that are merging into [De Vlaamse Waterweg nv](#) to formulate recommended speed limits for several ship types and loading conditions for the Flemish waterways, comprising more than 850 km length in total.



A methodology had been developed to recommend speed limits for the Albert Canal, as mentioned in our [18th newsletter](#). Three speeds are determined: the critical speed to avoid excessive fuel consumption, the speed at which the wave height at the bank reaches a limit value of 0.40 m and the speed for which the force on a moored ship reaches 20% of the breaking strength of a mooring line. One of the major parameters that influences these speeds is the blockage factor, which is the ratio of the cross-sectional area of the vessel to the cross-sectional area of the waterway.



Special tools were developed so that cross-sectional areas along a waterway can be determined and visualized from bathymetric survey data. For each waterway, the recommended speeds were determined for typically two types of vessels at two different loading conditions. In order to simplify the regulations, the ship types and dimensions were then grouped into categories. If considered appropriate, a waterway could be divided into different sections, each with a separate set of recommended speeds. The results can be visualized with GIS mapping tools.

The proposed recommended speeds were then discussed with stakeholders of the inland navigation community in order to arrive at speeds that are generally acceptable and practically implementable. The final recommended speeds will be implemented in 2018 and it is the objective that they can also be consulted on [VisuRIS](#), the [online platform for waterway information](#). More details can be found on the [website](#).

A paper entitled “Post processing techniques study for seakeeping tests in shallow water” was presented by Marc Mansuy at [AMT '17](#), which was held from 11 to 13 October 2017 in Glasgow, UK. The paper, which is available [online](#), presented an overview of post processing tools which are commonly applied to signal measurements to disregard noise and undesired effects. The suitability and limitations of such techniques when applied to the study of seakeeping model tests in shallow water, were discussed.



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