

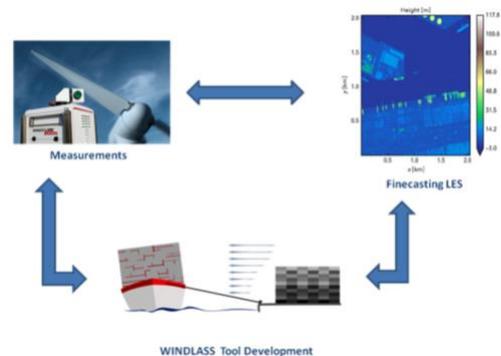
Press Release

WHIFFLE DELIVERS WIND EXPERTISE AND MODELLING TO THE WINDLASS PROJECT

Delft, the Netherlands – 28 May 2019

Whiffle has joined the WINDLASS Joint Industry Project (JIP) as research partner. The WINDLASS JIP's objective is to better understand 3-D wind fields in exposed ports and waterways to develop a wind load prediction tool. The JIP is organized and led by MARIN in the Netherlands.

Container ships, cruise vessels and LNG carriers feature increasingly large windage and have to navigate into ports through waterways and locks, and finally berth safely at terminals which are sometimes exposed to severe wind. Recent incidents indicate that limiting wind conditions are reached earlier than in the past. In this JIP new technologies will be deployed to increase our understanding of the 3-D wind field encountered which is instrumental to develop a practical wind load prediction tool. The envisaged tool is for operational use on board and in the port as well mooring analysis and in nautical simulators.



Whiffle sets a new standard in local weather forecasting - a concept we refer to as fincasting. Whiffle's unique Large Eddy Simulation (LES) model GRASP uses cutting-edge computing technology to produce fine-scale weather forecasts and weather simulations. GRASP has all capabilities for simulating realistic historic 3-D wind fields required for this project and the load calculations.

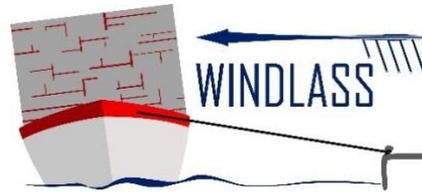
The strength of the fincasting model is that the calculations remain very close to the laws of physics that dictate the processes in the real atmosphere and does not rely on modeling assumptions that are common in traditional weather models.

Henk van den Boom, Senior Project Manager of MARIN: "We are glad to have the Whiffle team on board for this project. MARIN wants to set the next steps in addressing the challenges in shipping together with partners and the industry. One of these challenges is securing ships in various wind conditions. The fincasting model helps us to make these next steps."

Remco Verzijlbergh, director of operations of Whiffle: “The WINDLASS JIP is a great opportunity to widen the application of finecasting to shipping and to contribute to safety in ports. We look forward to working with the partners from MARIN, KRVE and TU Eindhoven and industry on this important topic.”

More information about the WINDLASS JIP and about the opportunity to join this project can be found at:

<https://www.marin.nl/jips/windlass>



About Whiffle

Whiffle B.V. has been operational since 2016 and was started as a spin out of the Delft University of Technology. With its roots in science, the company has continued cutting edge R&D to further develop the Large Eddy Simulation (LES) models and a unique implementation on high performance computing systems. This resulted in the world's first LES based operational weather model that can perform highly accurate and high-resolution weather forecasts. Application areas of Whiffle's model include wind and solar power projects, dispersion of air pollution, aviation and agriculture.

Whiffle B.V.

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