



Last autumn MARIN launched an innovative initiative to start a partnership with its clients for a maritime Computational Fluid Dynamics' (CFD) development, validation and application known as the "ReFRESCO-operation".

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ReFRESCO-operation gives unique opportunities in CFD

CFD plays an increasingly important role in the design of maritime and offshore structures. MARIN has always supported this with dedicated tool development, extensive validation and application. Recently, MARIN invested in a large computer cluster and this computing power, together with the CFD Code ReFRESCO, forms a new facility, "The Maritime Cluster".

Naval architects and offshore engineers increasingly use CFD calculations themselves or plan to do so in the near future. To stimulate cooperation and interaction in this field, MARIN now invites its clients to take part in the ReFRESCO-operation. In this partnership, MARIN wants to share its dedicated CFD Code ReFRESCO (see www.marin.nl/refresco), which is extensively verified and validated for maritime applications. Furthermore, MARIN

will open its computer clusters for ReFRESCO users, so that it can jointly work with customers on the reliable and robust application of CFD in the maritime field.

The ReFRESCO-operation means that the ReFRESCO Code will be provided to customers without limitations on the number of users or compute cores. The MARIN medium cluster of 1600 compute cores provides the possibility to scale up calculations without the need for large investments. An extensive team of CFD specialists at MARIN is available to support the customer's CFD team, to provide insight into the methodology and in the source code.

To support the ReFRESCO-operation, MARIN is significantly extending its CFD develop-

ment, validation and application team. By participating in this unique cooperation MARIN and its customers can help in the further development, validation and application of CFD for maritime applications. ReFRESCO does not replace generic, commercial CFD codes, which also have their merits and can be used for a wide range of applications. However, these codes are often not validated for the maritime sector. ReFRESCO gives the possibility to apply CFD reliably for specific maritime applications in direct open interaction with the developers and other users.

The ReFRESCO-operation partnership has already started but new participants are welcome to join. For more information please visit www.marin.nl/refresco-operation. □