

## MADNESS

### DESIGNING RELIABLE SOFTWARE APPLICATIONS FOR THE SHIPPING SECTOR

The MADNESS project will seek to improve the way the criteria for ensuring operational reliability are taken into account in the design of critical software for the maritime sector.

Unlike other sectors of activity, such as aeronautics or space, quality assurance measures for software remain broadly separate from development activities in the shipping sector. This is particularly the case with operational reliability, which would benefit hugely from being analysed during the phases prior to the software development cycle.

When software architecture design is introduced before coding, such an analysis can be conducted as a matter of course, and any required compromise sought with other optimisation criteria, such as real-time performance and security.

The MADNESS project therefore involves instigating a methodology equipped with a model-based engineering system for analysing operational reliability during the architecture design phase of critical software by applying it to the dynamic positioning system of a ship.

**The MADNESS project is also officially recognised by the EMC2 cluster.**

#### Partners

##### Companies

Ellidiss Technologies, Brest [Project Developer]  
D-ICE Engineering, Nantes

##### Research center

UBO / Lab-STICC, Brest

#### Funder

En recherche de financement

#### Labelisation

15/12/2017

#### Overall budget

309 k€