

Objectives



In order to determine the optimum operation time for offshore plants, RELIABLES Offshore has set itself two project goals:

1. Further development of the Structural Health Monitoring Method
2. Establishment of a cross border vibration and fatigue test center for regional companies.

Partners:



Crossborder Vibrations and Fatigue Testcenter

Other institutions:

Interreg, R&D Centre, various network partners (see Web).

Reliables Offshore is funded by Interreg Germany-Denmark with resources of the European Regional Development Fund. For more information, see www.interreg5a.eu.

More information:
www.reliablesoffshore.eu

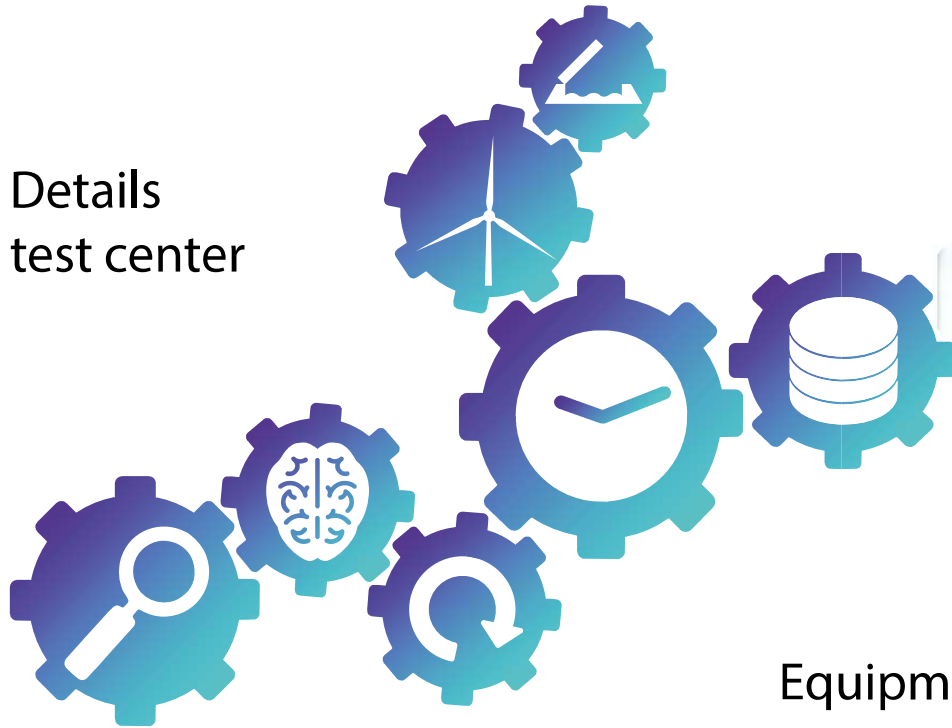


Interreg
Deutschland - Danmark



EUROPEAN UNION

Details test center



Physically, the cross border Vibration and Fatigue Test Center is located in two different locations: the Kiel University of Applied Sciences (Kiel UAS) and the University of Southern Denmark (SDU).

The Kiel UAS has special knowledge about the fatigue strength. You can view the available equipment here.

This knowledge is supplemented by the vibration knowledge of the SDU. Here you will find the equipment of the SDU.

Local companies can profit from our competences in both areas and have the possibility to have specific projects investigated. This can be done as Third-party funded project or student project.



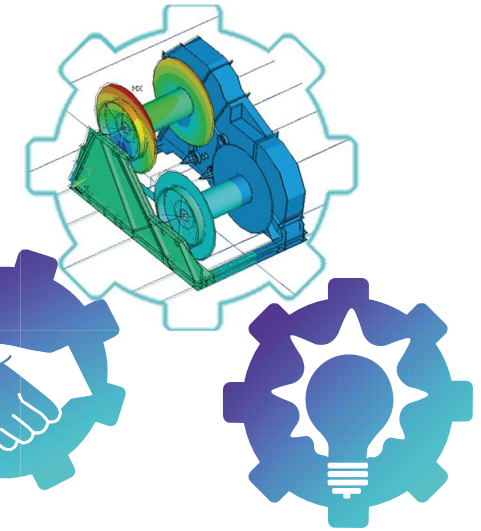
Equipment for fatigue

The following test benches and simulation facilities are available for the RELIABLES Offshore project at the Kiel University of Applied Sciences:

The Hydropuls PZ 200/400 is a universal, hydraulically operated test bench for static and dynamic large-scale experiments.

Two universal electromagnetically excited resonance test benches are available to perform tensile/compression, bending or torsional vibration tests on components and material samples.

With the help of the FEA, parts are virtually simulated on different aspects with a HPC Research Workstation (28 cores and 256 GB RAM).



Equipment for vibration

At the Southern University of Denmark these test benches and simulation facilities are available for the RELIABLES Offshore project:

On the FINO3 platform we have installed National Instruments Compact-DAQ system with 12 3-axis accelerometers that measure 22 acceleration signals, and 4 strain gauges. In addition one differential GPS is installed for precision displacement measurements.

At SDU we also have hardware and software for large scale measurements for experimental and operational modal analysis and other vibration analysis applications.