

EU Horizon 2020 project

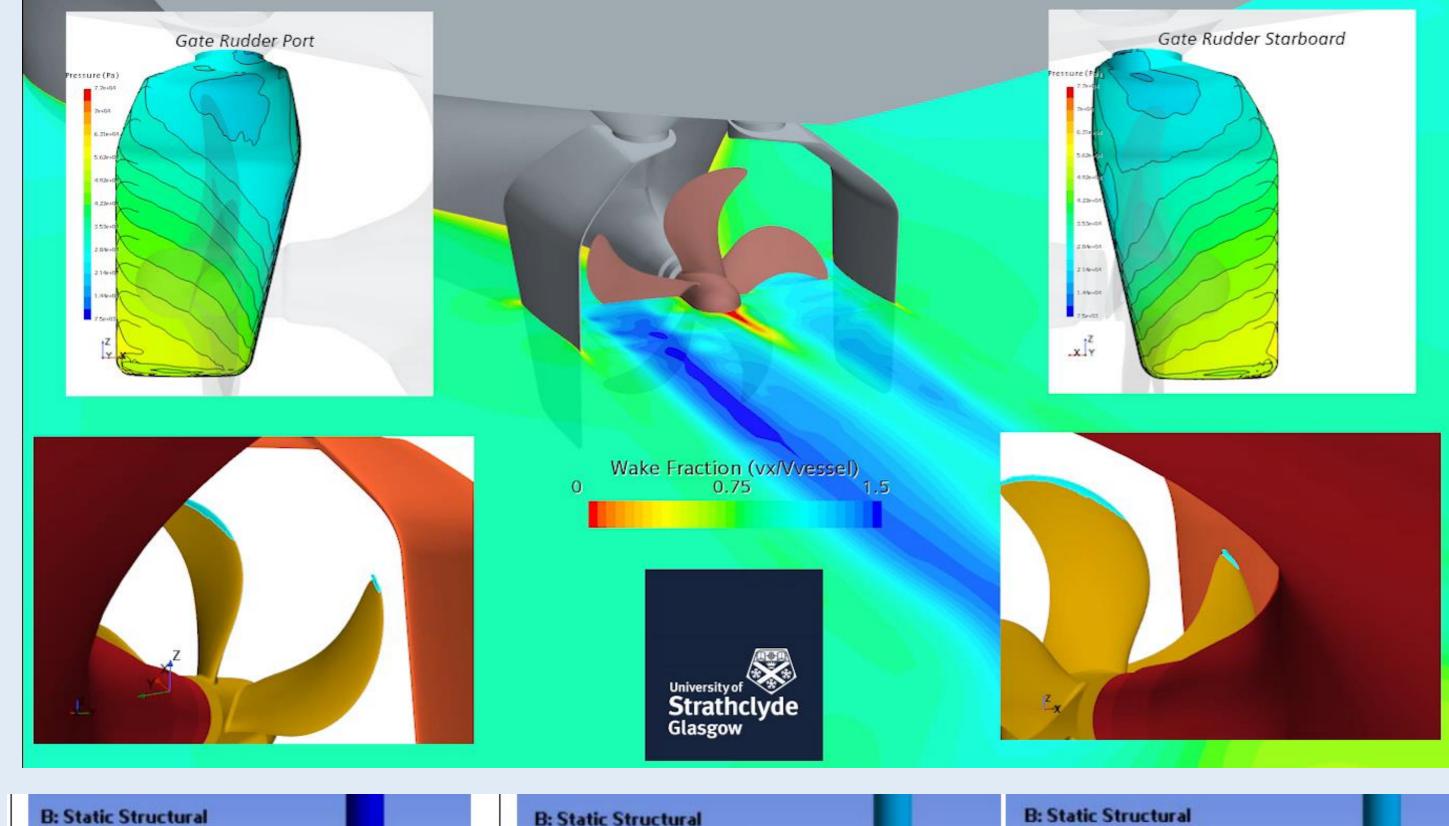
Gate Rudder System as a Retrofit for the Next Generation Propulsion and Steering of Ships

CFD and FEA Analysis

Validated and verified high fidelity CFD simulations are used to evaluate power savings and scrutinize forces acting on the Gate Rudder system to ensure structurally sound

Model Tests

GATERS project involves model tests with Gate Rudder System at world renowned facilities. Self propulsion, seakeeping, manoeuvring and cavitation tunnel tests will be conducted with 4m, 6m and 11m models to establish



B: Static Structural Total Deformation Type: Total Deformation Unit: m Time: 1 14/10/2018 22:07 0.021622 Max 0.019219 0.016817

0.014414

0.012012

Equivalent Elastic Strain Type: Equivalent Elastic Strain - Top/Bottom Unit: m/m Time: 1 14/10/2018 22:09 0.000507752 0.00050533 0.00043314 0.00036095 0.00028876

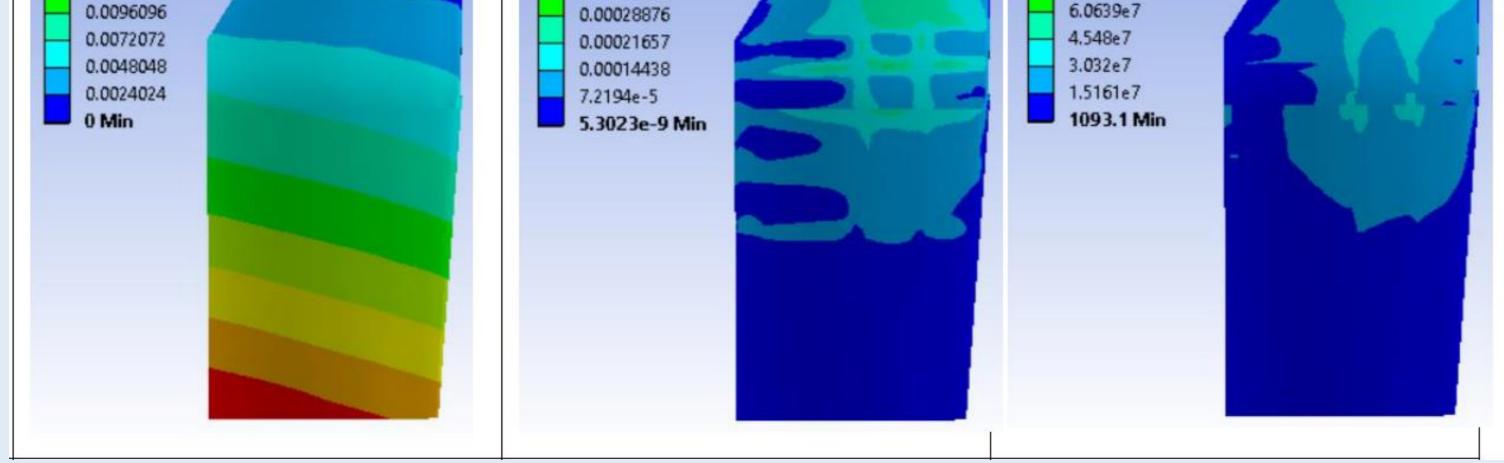
Type: Equivalent (von-N	dises) Stress - Middle
Unit: Pa	
Time: 1	
14/10/2018 22:11	Max
1.3644e8 Max	1.2906e+008
1.2128e8	1.332e+008
1.0612e8	
9.0958e7	1.2953e+008
7.5799e7	The second second
6.0639e7	

accurate power prediction techniques.



Detail Design & Manufacturing

Validated and Verified high fidelity CFD simulations are

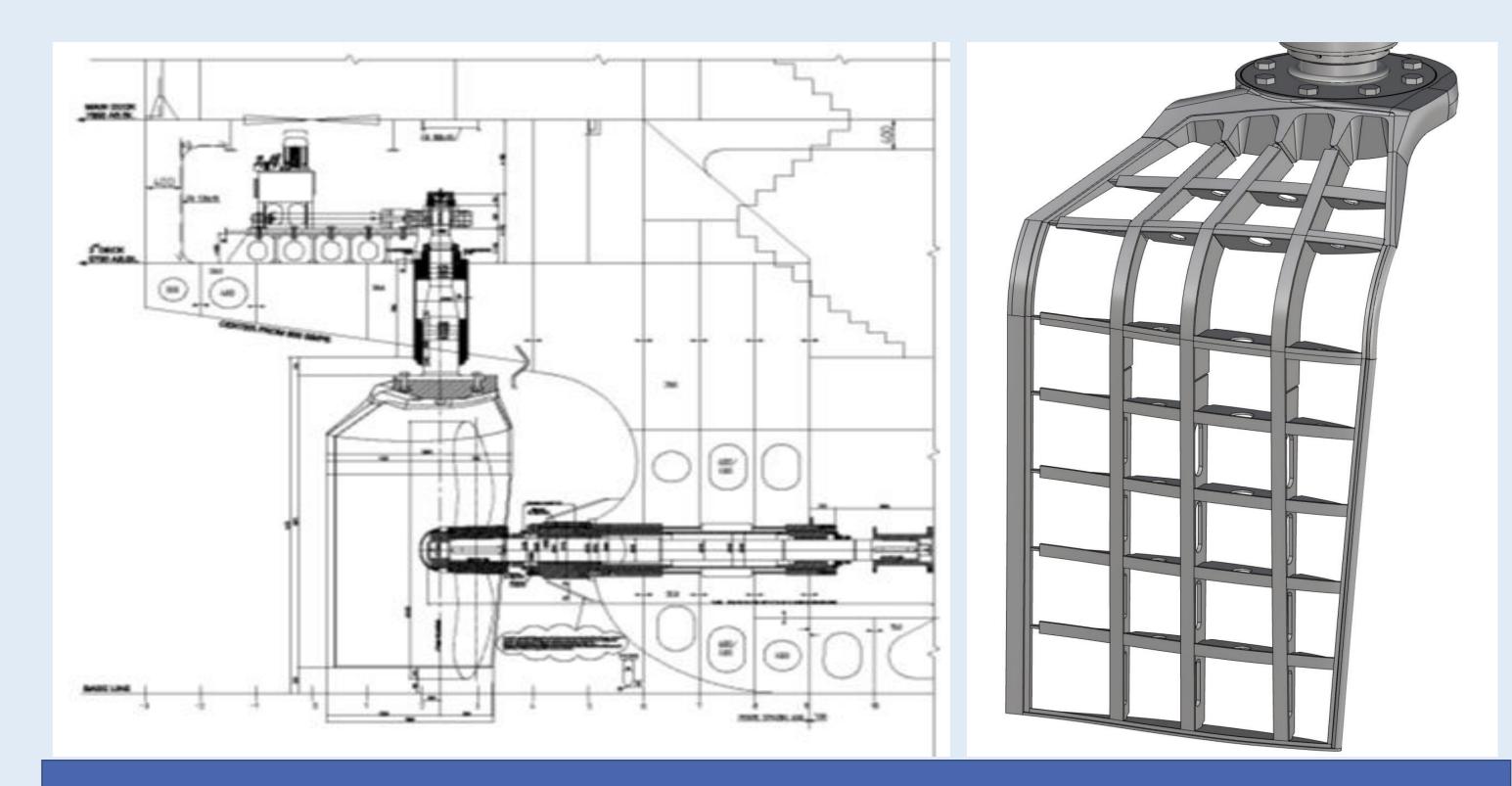


Voyage Monitoring & Sea Trials

The target vessel of GATERS project is instrumented with industry standard voyage monitoring system will enable in-service comparison of the performance of the vessel before and after the Gate Rudder System Installation according to the established international standards.

TE Date Collector - v4.00 - (C) 2009-12 MGA		
	SHIP NAME	

used to evaluate power savings and scrutinize forces acting on the Gate Rudder system to ensure structurally sound



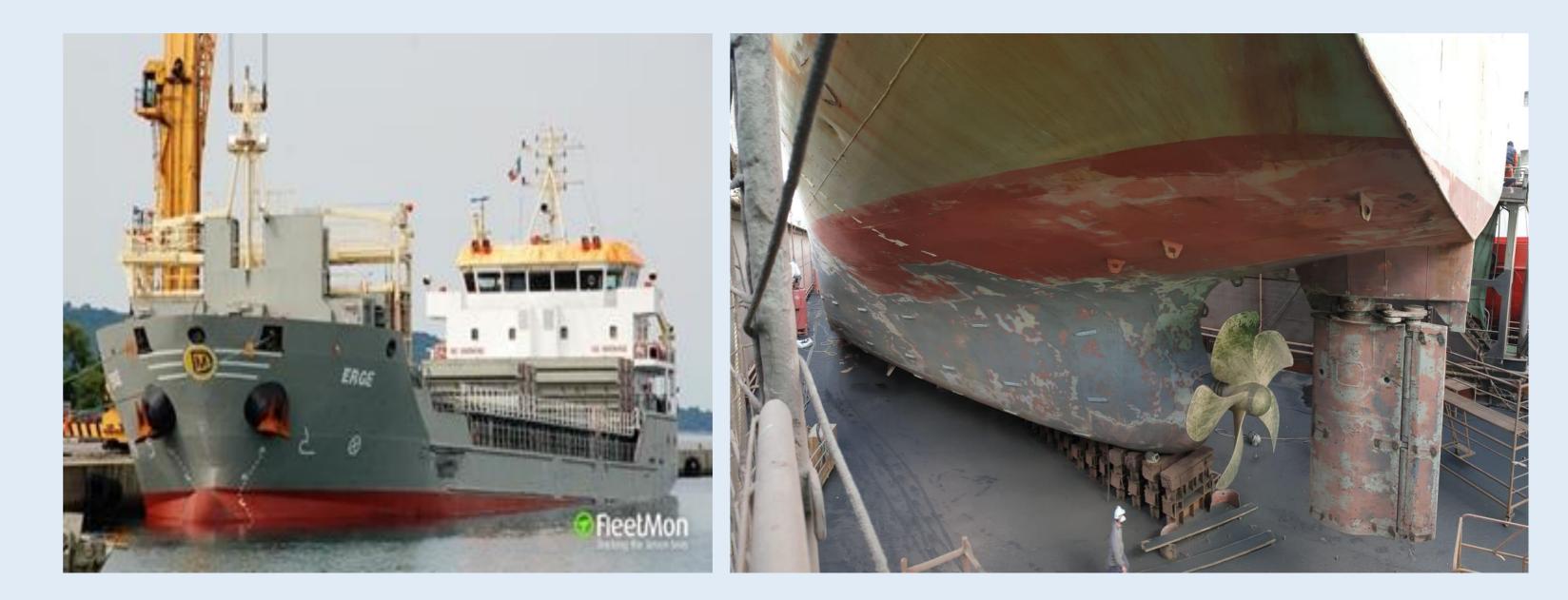
Retrofitting and Demonstration

Benefits of the retrofit application will be demonstrated



Long term monitoring system cockpit that will be installed on board

on 5000DWT coastal general cargo vessel M/V Erge.





The project has an official sub-license agreement with Wartsila Netherlands BV to utilise the Gate Rudder Patent (EP 3103715) at specific retrofit projects of vessel sizes below 15000 DWT.

GATERS Innovation Action Project is sponsored by the EC H2020 Programme (ID: 860337) with the independent aim and objectives.