

## EUROPEAN MARITIME SIMULATOR NETWORK PREMIERE IN DIGITAL NETWORKING

39 European partners from 10 countries aim at developing a framework for the European maritime traffic management in the EU project MONALISA 2.0.

An essential subgoal for the development of this maritime traffic management system was reached in December 2014 when simulations within a network were implemented to assess the feasibility of the developed solutions. Together with participants in Spain, Sweden and Finland, the Fraunhofer CML demonstrated for the first time in a one-week simulation run that a combination of ship simulators produced by various manufacturers is possible. Every simulator connected to the network controlled a vessel from its bridge in an everyday traffic situation in



Gothenburg bridge simulator

the Kattegatt. Up to 14 vessels were on their way in this virtual traffic area at the same time and were visualized on the bridges of the other simulators. The crews had to communicate with each other by radio in real time and respond to the movements of the other vessels.

„Now that the foundation has

been laid for the joint simulation that encompasses various manufacturers, we can connect other simulation centers to the network“, said Ole John, Project Manager at CML. Further large scenarios will be carried out by the end of 2015. More information: [www.monalisaproject.eu](http://www.monalisaproject.eu)

## AFTER-SALES SERVICES IN THE SUPPLY INDUSTRY MARITIME SYMPOSIUM IN HAMBURG

A great success for the Fraunhofer CML and the International Performance Research Institute gmbH: About 70 participants came to the traditional meeting room in the Chamber of Trade on February 20 and listened to fascinating and interesting speeches. Both the speakers and participants agreed on the importance of after-sales services. Apart from the fact that they are often

an essential criterion for the customers' decisions, their turnover often contributes disproportionately to the profit. The German maritime supply industry is regarded as the most important all over the world; its biggest customers being the EU-countries. However, competition is growing – most of all in Asia. So how can individual suppliers distinguish themselves from their competi-

tors? The suppliers' main tasks are the service with regard to spare parts and maintenance but also the increase of efficiency and retrofits, the safeguard of the leadership in technology and the digitalization of products and processes. It is just the last two items where the chances are great for German companies. The expenditure for performing the services has also been taken into account, which can often be quite high. It is exactly those logistics processes that can be decisive for the success of a company. In view of this challenges the Fraunhofer CML is expanding its activities for the sector. They are developing optimization concepts for the logistics behind the after-sales services and preparing an up-to-date study on this subject to be published in early summer.

### FOREWORD



Dear readers,

Germany has the biggest maritime supply industry all over the world. But the international competitors are not sleeping. The competition is growing – most of all in Asia. What can maritime suppliers do in the future to distinguish themselves from their competitors? This and other questions have been discussed together with 70 participants who are in this business at the Maritime Symposium on the subject of "After-Sales Services".

In addition to that the Fraunhofer CML was able to set further important signals for unmanned merchant ships. The EU-project MUNIN is an example for promoting the development of various innovative technological approaches such as supporting the lookout by new camera systems ("Auto-LookOut") or intelligent modules for the "unmanned bridge".

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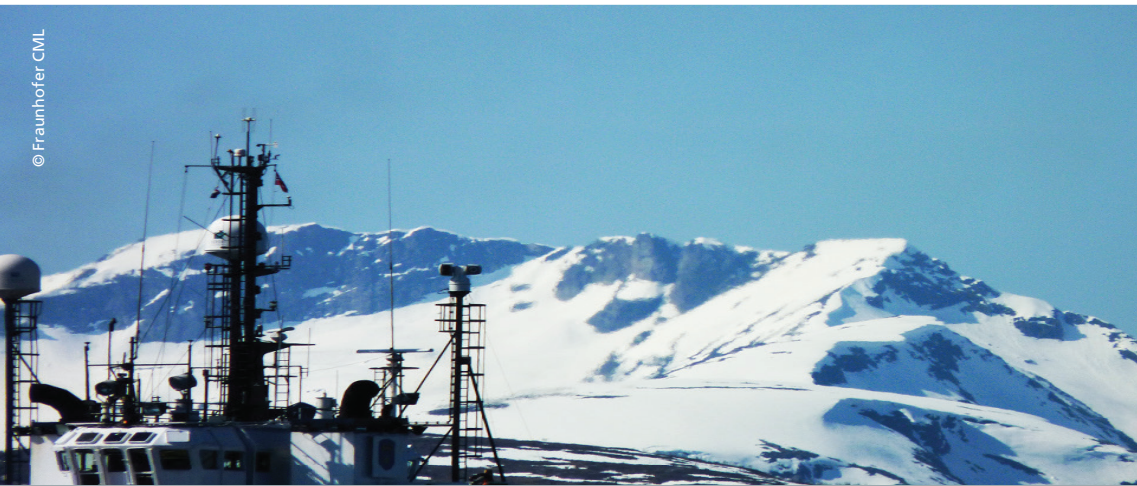
Yours, Prof. Carlos Jahn  
Head of Fraunhofer CML



Inevitable: After-sales services for global shipping

# MUNIN – NEWS ABOUT THE AUTONOMOUS SHIP TECHNOLOGY APPROACH FOR INCREASING EFFICIENCY

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First tests of "AutoLookOut" in a Norwegian fjord

MUNIN is one of the leading international EU project on the subject of „unmanned cargo shipping“ where eight partners from Germany, Norway, Sweden, Iceland and Ireland, headed by the Fraunhofer CML, are developing the concept of an autonomous ship. So far various core systems of the autonomous ship have been developed as prototypes during the course of the project and a simulation test-bed for evaluating an autonomous bridge technology has

been created. The focus in this field was laid on „AutoLookOut“ and the „unmanned bridge“. „AutoLookOut“ consists of an intelligent camera system that does not only aim to provide more safety but also to relieve the bridge crew. The „unmanned bridge“ means that a bridge crew takes over the guard in the daytime and technical devices support and unburden the crew at night. This can contribute to better working conditions and an increase in efficiency.

These and other project results will be introduced by the Fraunhofer CML on the Nor-Shipping 2015 in Oslo and the final project meeting in Hamburg afterwards. In addition to that a guided tour through the Shore Control Center and a visit to the „unmanned bridge“ will be possible in Hamburg. Participation to the events is free. Registration is possible from now on by sending an e-mail to [munin\\_workshop@cml.fraunhofer.de](mailto:munin_workshop@cml.fraunhofer.de).

## AN EAR FOR THE STAFF EMPLOYEE SURVEY FOR E.R. CAPITAL HOLDING

Employee satisfaction is one of the major keys for the general business success. The Fraunhofer CML has assisted and given scientific advice to E.R. Capital Holding, which also includes the Hamburger Traditionsreederei E.R. Schifffahrt, in a survey carried out amongst the staff on shore. Several hundreds of staff members were surveyed anonymously about various aspects of their working life. They commented, amongst other things, on the equipment of their workplaces, their personal satisfaction, the performance of the company and the organizational climate.

For this reason the Fraunhofer CML as an impartial partner has carried out the scientifically sound phrasing of the questions, the complex presentation of the

answer options and the final evaluation. The cooperation was based on trust and partnership. The high rate of participation shows that the structure and function of the questionnaire were highly accepted by the staff and they were motivated to express their opinions. The Fraunhofer CML evaluated the questionnaire for each corporate

division and introduced the results. Heiko Nies, Human Resource Manager at E.R. Capital Holding, is satisfied: „Based on the evaluation of the employee survey by the Fraunhofer CML, E.R. Capital Holding was able to reveal both a detailed atmospheric picture and valuable recommendations for improving the working environment.“



Satisfied: Good results of the employee survey

## IN BRIEF

Since January 1, 2015 Hamburg is participating in the financing of the Fraunhofer-Gesellschaft jointly supported by the government and the German Länder. So far the Free and Hanseatic City of Hamburg was the only German Land out of 16 that has not been a member there. With Hamburg's participation, the Fraunhofer CML has been converted into a permanent Fraunhofer facility. Established as a project group of the Fraunhofer IML in Dortmund, the Fraunhofer CML will work as a part of the institute of IML in the future.

The Fraunhofer CML is preparing a study about after-sales services in the maritime supply industry and in the process is conducting a survey and expert interviews in this sector. Apart from the traditional after-sales services such as the provision of spare part and maintenance other services are gaining in importance as first results indicate, e.g. remote maintenance and diagnosis, training and financing. A great majority of the answers rates the future importance of these services as (very) high and assigns a great growth potential to them. The study will be published in early summer.

## +++ DATES +++

- **transport logistic 2015**  
5.-8. Mai 2015, München
- **Nor-Shipping 2015**  
1.-5. Juni 2015, Oslo
- **TOC Europe 2015**  
9.-11. Juni 2015, Rotterdam
- **MUNIN Final Event 2015**  
10.-11. Juni 2015, Hamburg

## IMPRESSUM

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