



Vessel breakdowns require short response times.

SOLUTIONS FOR THE MARITIME AFTERMARKET TAKING AFTER SALES SERVICES TO THE NEXT LEVEL

Success Factor After Sales Service

The importance of after sales services has grown over the past years across sectors. Today service champions earn up to 50% of profits in the aftermarket, although it accounts for only 20 to 30% of revenues.

The maritime equipment industry is no exception. Results of a study by Fraunhofer CML in cooperation with VDMA confirm that firms already generate a significant share of revenue in the aftermarket. Nonetheless a great majority still sees high growth prospects for the future.

Best Practice in the Aftermarket

Long term success in the aftermarket requires a sensible strategic approach and business design. After sales services should directly satisfy core customer needs, efficient logistics processes enable a fast response and smart organizational structures facilitate a provision of services across individual departments.

According to CML's after sales market survey most important success factors are:

- Minimal vessel downtime,
- Excellent spare parts availability and
- Short response time.

After Sales Related Solutions at CML

Fraunhofer CML offers solutions that can help to take maritime after sales services up to the next level.

These support companies from the maritime equipment industry in terms of the conceptual design and optimization of their services in the aftermarket, including:

- Service Network Design,
- Spare Parts Logistics,
- Decision Support Systems and
- Digital Business Models.

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IMPRESSUM

Excellent spare parts availability can help reduce time spend in port.



Service Network Design

Companies have to match the supply of resources with customer demand for after sales services. To that end spare parts, service technicians and equipment have to be delivered to the right place – worldwide and at short notice if necessary. In this context an efficient service network is crucial to master the trade-off between speed and costs. Fraunhofer CML develops simulations which allow comparing the performance of multiple network set-ups against each other taking into account forecast demand data as well as all relevant inventory- and logistic costs. This allows identifying an optimal network solution with the right balance between costs and service-level.



Spare Parts Logistics

Managing and optimizing the spare parts business is of high importance in the maritime equipment industry as, on average, spare parts account for more than 50% of aftermarket revenue. However, demand for spare parts is often sporadic and irregular. Accordingly, demand forecasting and deciding on optimal inventory levels can be tricky. To enable a foresighted inventory strategy Fraunhofer CML develops mathematical forecasting algorithms and heuristics which are tailor-made for maritime spare parts. Forecasts can be either based on historical demands or include additional explanatory variables and, where available, data provided by condition monitoring.



Decision Support Systems

The amount of data available e.g. regarding the environment as well as performance and state of vessels is increasing rapidly. However, gathering evermore data is not an end in itself. Only by translating it into intelligence and knowledge, companies from the maritime equipment industry can gain a business advantage. Here smart analytics and decision support systems come into play. Fraunhofer CML develops and pilots tailor made business intelligence and decision support system for its customers making use of mathematical optimization methods. These enable managers to monitor and measure service supply chains and thus allow them to improve decision making and performance in the aftermarket.



Digital Business Models

When it comes to strengthening the service business, future opportunities related to digitalization and the fourth industrial revolution are mentioned regularly. Smart production is supposed to enable companies to improve flexibility and efficiency and smart services will increasingly shape the aftermarket. But how exactly? Unfortunately there is no one-fits-all solution. Fraunhofer CML supports companies from the maritime equipment industry in identifying sustainable new business models and developing innovative solutions in the context of Maritime Service 4.0 such as remote services and condition based maintenance.