

# Innovations for the logistics sector

**We design shipping, ports and hinterland logistics  
efficient, sustainable and safe**

## Logistics: a dynamic industry

The use of new technologies and the development of new fields of application mean that logistics is under constant pressure to innovate. These dynamics and developments in logistics need to be captured and utilized.

Because this opens up new perspectives and business models. It is becoming increasingly important to digitize transport and logistics processes, design them sustainably and thus increase safety and efficiency.

Due to the diverse interactions with public space and infrastructure, shaping the framework conditions for transport and logistics is in the public interest.

### The Fraunhofer CML offers you:

- Data preparation and statistical analysis of traffic volumes and transportation demand
- Feasibility studies in transportation and logistics markets
- Cost-benefit analyses as well as infrastructure and technology assessments
- Software applications for process modeling and logistics simulation
- Evaluation and optimization of logistics process chains
- Concepts for the use of alternative fuels
- Port and terminal planning



## Support in decision-making and optimization processes

With our knowledge of current trends and technological possibilities in logistics, the Fraunhofer CML supports you in leveraging your optimization potential and in important decision-making processes. We provide impartiality and professionalism in our services. You benefit from our extensive experience gained through many years of successful projects in the field of ports, shipping, and hinterland logistics.

### Analysis, forecasting and optimization

As a customer of the Fraunhofer CML, you will receive tailored support throughout your process. The focus is always on your individual requirements and needs. Whether it's conducting an as-is analysis, process analysis, or optimization, we are ready to take these steps together with you.

### Exemplary analyses in logistics, port and terminal development

- ETA calculation of ships to increase the efficiency of maritime supply chains
- Development of an inner-city logistics system using inland waterway vessels to carry out delivery traffic on Hamburg's inner-city waterways
- Development of an energy control room to analyze and control energy flows in the port
- Evaluation of measures for the digitalization and optimization of terminal processes and terminal layout
- Traffic flow simulation of automated vehicles in the critical terminal and port infrastructure

### Data preparation and statistical analysis of traffic volume and transport demand

The ever-increasing volumes of data can pose challenges in comprehensively assessing any situation. On the other hand, this data may contain solutions for more efficient processes.

The CML carries out statistical analyses and data processing for you. This improves the basis of your decision-making by providing clear insights from highly complex as well as from extremely large unstructured datasets.

### Feasibility studies in transportation and logistics markets

Economic decisions require an analysis and, if necessary, a forecast of the transportation and logistics market within its specific market segments.

The Fraunhofer CML conducts customized feasibility studies to meet your specific needs. We analyze the current situation and develop various scenarios that encompass a wide range of potential developments. From this, we derive recommendations for action for you. This analysis creates a comprehensive foundation for decision-making on the feasibility of a planned undertaking.

### Evaluation and optimization of logistics process chains

Logistics process chains are characterized by a high degree of complexity and a multitude of influencing factors.

CML conducts thorough analyses of the current situation to identify measures and development alternatives that allow you to optimize your processes. These processes can either already be anchored in your logistics chain or represent new potential for you within this chain.

### Your result

With our expertise, we support you in driving innovation in your processes in order to leverage the existing potential for efficiency, sustainability and technological innovation.

### Contact

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