eLOGMAR-M

Mobile Communications Solutions to Support the Logistics Processes in Maritime Applications

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The control of maritime logistics chains is a complex task with many different actors. Merchants require information about their goods. Carriers rely on exact information about delivery times and places. Containers are sent on global journeys. In the Port of Hamburg, for example, around 370 million containers were handled in 2004. That means one million per day. Information on the containers must be available not only to the port operator but also other partners such as customs officials and insurance agencies. The particular challenge of the eLOGMAR-M project is to create a platform that can be used by all partners in distributed environments.

The project eLOGMAR-M builds upon the results of already successfully completed EU-projects. These preceding projects researched the potentials for optimization through computer simulations in Baltic ports. On the basis of the results, prototypical IT solutions were developed to support the logistics processes. Typically, these solutions were for stationary use at one or more locations.

The eLOGMAR-M project is executing the next logical step and is dealing with mobile solutions for logistic problems. The focus here is on Web-based and mobile solutions for distributed work when there are problems with logistics.

The applications being aimed for are geared toward the management and control of logistics processes along a selected maritime trade route: »Baltic Sea feeder ports – Western European hub port (Hamburg) – Mediterranean ports – Chinese ports«. This maritime trade route serves as a practical scenario for the tests and the demonstrators to be developed.

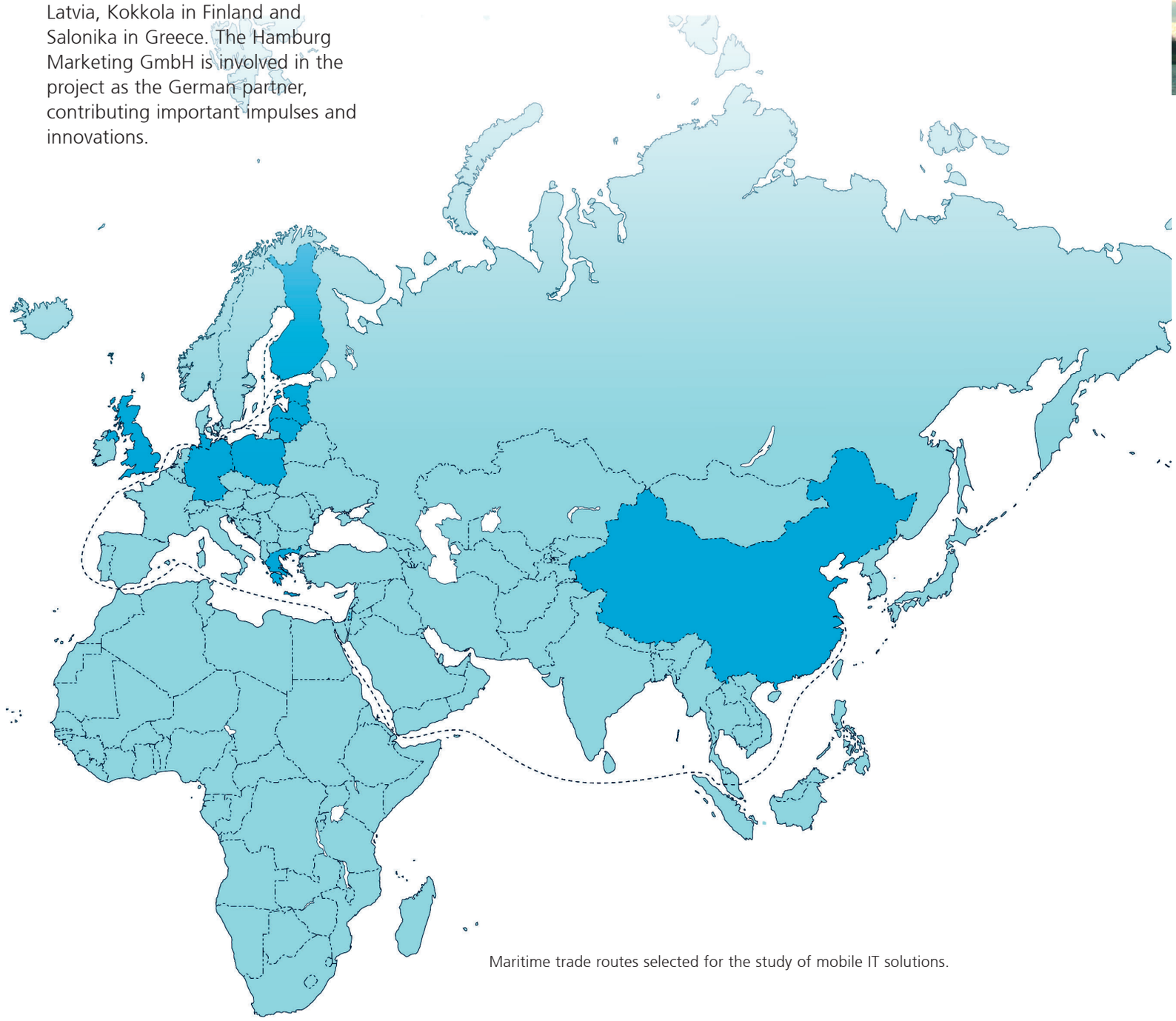
The project includes partners from all the nations involved in this trade route. The list of partners covers 18 institutions from 9 countries. A core group of partners comes from the Baltic states of Latvia, Estonia and Lithuania, since, as new members of the European Union, they need special efforts to adapt their infrastructure to the transportation network of the other European partners.

Other partners come from Germany (e.g. Hamburg, Frankfurt and Magdeburg) and have established logistics competencies. Along the trade route, the partners are rounded out in the Mediterranean region with partner organizations from Greece (Salonika). The consortium is completed by two Chinese partners that work in the field of logistics.

Apart from the research organizations in the consortium headed by the Fraunhofer IFF, logistics service providers are represented as end users from the port sector, e.g. operators in the ports of Klaipeda in Lithuania, Riga in Latvia, Kokkola in Finland and Salonika in Greece. The Hamburg Marketing GmbH is involved in the project as the German partner, contributing important impulses and innovations.

One of the project's primary objectives is dealing with the problems of organizing a pool of cooperating partners, who collaborate in a distributed work environment along the selected trade route. This requires the integration of their electronic information resources such as databases, information systems and Web servers and portals.

Support for and research of new work methods for actors in the logistics and maritime sectors are connected with the demand for mobile access to these resources. In the future, technologies such as WAP, GPRS, UMTS, and hot spots for wireless LAN will make work and communication with mobile terminals part of the logistician's everyday life. To this end, eLOGMAR-M is researching suitable forms of use and will be demonstrating the potential in several demonstrators to be created.



Maritime trade routes selected for the study of mobile IT solutions.

Automated container terminals as an example of ultramodern technology in the Port of Hamburg.

The knowledge acquired is being transferred in different ways. On the one hand, the solutions generated are being integrated in the Baltic Sub-Regional Competence Center in Riga and being made available to the public. Potential users can inform themselves about the IT services and mobile solutions developed. The Web server installed there makes part of the solutions available over the Internet. They can be accessed by a normal PC as well as by mobile terminals.

On the other hand, a series of workshops and conferences specifically geared toward users in the maritime sector is being organized as part of eLOGMAR-M. Cities in the Baltic region such as Riga (Latvia), Klaipeda (Lithuania), Tallinn (Estonia) and in China such as Peking and Shanghai have been planned as conference venues.

The eLOGMAR-M project is pursuing the following objectives:

1) Study and analysis of logistic and maritime transportation processes, mobile services and e-work as well as basic legal conditions and regulations;
2) Training of specialists in maritime logistics and quality management systems;
3) Implementation of an Internet-based, interactive website as the gateway to a potential network;
4) Demonstrator of an Internet-based, collaborative work environment with mobile access;
5) Transfer of results in workshops, formation of expert groups and publication of a project manual describing the experiences from eLOGMAR-M.

Current information on eLOGMAR-M can be viewed and contact can be made on the eLOGMAR-M website http://www.elogmar-m.org.

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