

Case Study

Saab-Tein partnership sets a European first with AIS network for inland waterway navigation in the Netherlands



The EU is aiming for more efficient use of transport infrastructure through enhanced traffic management and information systems. Shipping must become quicker, safer and more reliable using intelligent mobility systems. The AIS Shore Infrastructure being implemented by Rijkswaterstaat and Saab-Tein is a European first.

“Tein Technology has extensive expertise in maritime monitoring.”

Guus Holtring, Rijkswaterstaat
Project AIS Shore Infrastructure

Increased traffic in European waters

By 2030 30% of long-distance (300 km or more) goods transport in Europe must be by rail or water. The target rises to more than 50% by 2050 through the use of efficient freight corridors handling greater volumes.

The aim is maximum utilization of the potential for shipping in European waters. Seaports play a crucial role as logistics centres and require efficient inland connections. Inland shipping must play a greater role in the transport of goods and as connections between European coasts.

Intelligent mobility systems such as River Information Services (RIS) and Automatic Identification System (AIS) facilitate quicker, safer and more reliable water traffic.

The Netherlands, Belgium and Germany are equipping their entire commercial fleets with AIS transponders.

AIS Shore Infrastructure in the Netherlands

Guus Holtring, Project Manager for AIS Shore Infrastructure at Rijkswaterstaat, explains: “In the Netherlands 30-35% of all freight is transported via inland waterways. We will be increasing this to 45% thanks to more efficient operational management of the traffic. For this, Rijkswaterstaat is installing, among other things, a national network for AIS.”

“The Saab-Tein contractor partnership is responsible for the delivery and management and is carrying out the work in three phases. First, the Rotterdam-Germany corridor will be equipped with shore stations (antennae and equipment), then the Amsterdam-Rotterdam-Antwerp route, and finally, in 2013, the rest of the Netherlands will follow. The project will be completed by the end of 2013.”

Some 45 stations will be installed throughout the Netherlands – the AIS Shore Infrastructure. The shore stations receive data – identity and position – transmitted by vessels on the inland waterways through an AIS transponder. The transponders meet international RIS standards for Europe. The AIS Shore Infrastructure project is being co-financed by the European Union using TEN-t funds.

“The Saab-Tein partnership is well on schedule,” Guus Holtring declares. “We work exclusively with partners with a strategic vision and extensive expertise in maritime monitoring,” he adds.

Traffic overview guides ships through waterway junctions

AIS Shore Infrastructure enables a real-time overview of traffic on the country's waterways. Improved forecasts of arrivals will allow operators at traffic stations, bridges and locks to increase the capacity of the junctions and minimize delays.



“Tein Technology goes
further than the letter
of the agreement.”

Guus Holtring, Rijkswaterstaat
Project AIS Shore Infrastructure

“Rijkswaterstaat imposes functional and partially detailed requirements,” says Guus Holtring. “The contractor must then follow its rollout scenario. We have full confidence in the Saab-Tein partnership, which goes further than the letter of the agreement.”

Operators at traffic and control posts are able to guide vessels more efficiently. Lockmasters know when vessels will be arriving at a lock and can prepare lock allocation in advance. Bridgemaesters can plan the opening of bridges more effectively.

Domino effect

An improved overview of the traffic situation also enables Rijkswaterstaat to respond to possible disasters in a more focused way. Rijkswaterstaat’s own fleet will also be equipped with AIS, making possible more effective joint action by the traffic stations and the mobile traffic dispatchers.

The AIS Shore Infrastructure will be linked to the AIS systems of the other Dutch waterway managers. Rijkswaterstaat has reached agreement with the Port of Rotterdam Authority, the Scheldt Radar Chain and the Coastguard to make AIS data on a vessel’s identity and position in their management territories available to the VTS (Vessel Tracking Services) traffic stations, radar systems and applications for traffic management.

As a result, vessels will need to report only once to the Rijkswaterstaat traffic stations and other authorities as these will automatically have access to the AIS data once it is in the system.

Benchmark for success

AIS Shore Infrastructure is the first in a string of projects that will make more information available for ‘tomorrow’s traffic management’.

Traffic stations using radar in support of traffic control will have their radar images enriched with AIS data. A web version will automatically be made available via Internet for other traffic or control posts.

“Some 800 personnel will make use of the AIS Shore Infrastructure in the performance of their daily traffic management tasks. They are responsible for making the project work. The Saab-Tein partnership gives us remarkable service across the line, with a focused approach,” says Guus Holtring.

The conclusion? “Predictable journey times will allow inland waterway shipping to better meet the needs of the logistics chain. The Saab-Tein partnership offered the best solution for making this possible.”

Client & Solutions

Client
Rijkswaterstaat, The Netherlands

Project date
2011-2013

Solutions

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