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# The use of security devices in container transportation

This demo project addresses a number of issues related to logistics tendencies nowadays, and how integrated MoS corridors can be used to address them:

- Complex criss-cross flows of goods around the globe
- Reduced inventories and increased velocity of inventory presses hard to accelerate the cash-to-cash transport chain, causing such chains to become significantly more sensitive to disruption and interruption;
- This and other market tendencies require reduced lead time and total landed costs, increased speed of procedures, end-to-end transport chain visibility, and rerouting of goods in transit

We acquired operational experience on how the integrated platform can be deployed in a real-world case:

- How should container security device be handled and what are its limitations:
- We experienced the actual security provided by such container devices, the limitations therein, and the requirements for establishing a full-proof security regime.
- We gained information as to how visibility can be further improved by integrating additional data sources, besides the container security devices themselves.

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Investing in the future by working together for a sustainable and competitive region

The Interreg IVB North Sea Region Programme

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# Background and Challenges

This demo project addresses a number of issues related to logistics tendencies nowadays, and how integrated MoS corridors can be used to address them:

- Complex criss-cross flows of goods around the globe, caused by the global economy bring more and more participants into the supply chain;
- Reduced inventories and increased velocity of inventory presses hard to accelerate the cash-to-cash transport chain, causing such chains to become significantly more sensitive to disruption and interruption;
- This and other market tendencies require reduced lead time and lead time variability, reduced total landed costs, increased speed of trade/security compliance and administrative procedures on EU/Russian borders, end-to-end transport chain visibility, and rerouting of goods in transit;

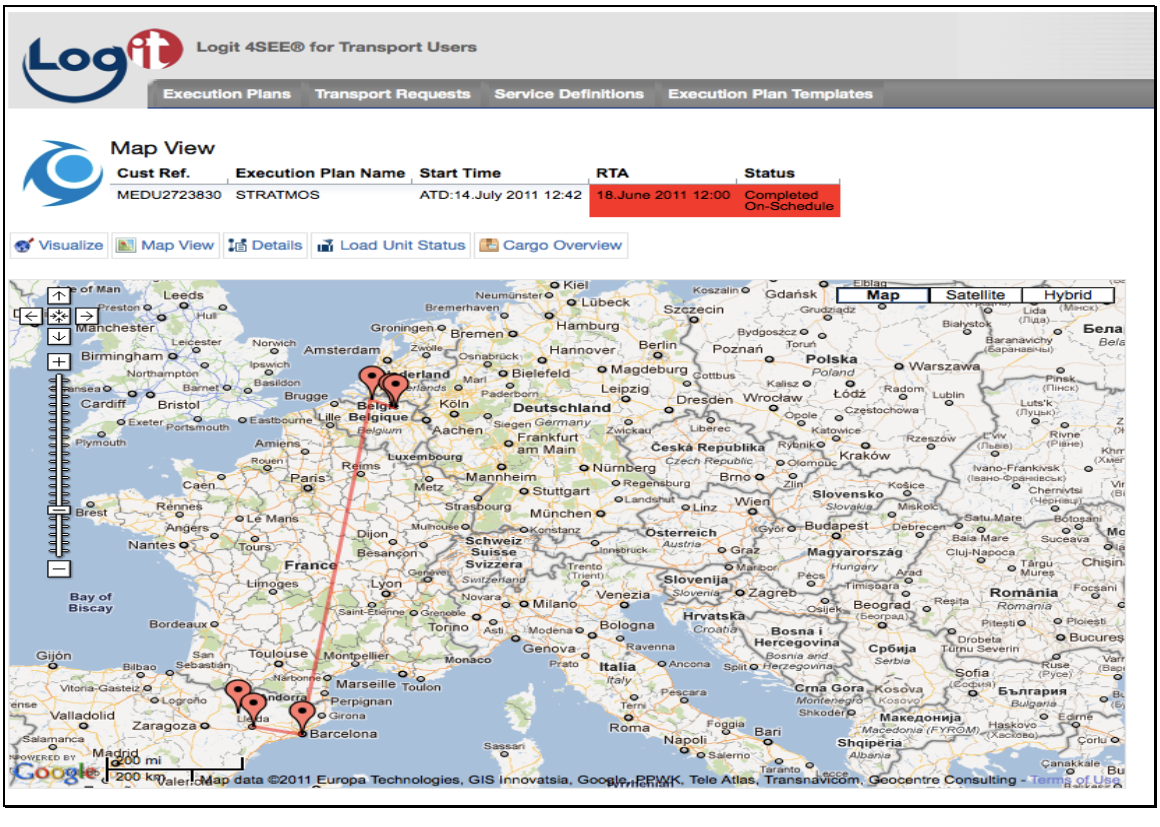
# Objectives

The main objective for this work package are:

- Demonstrate a private sector initiative to develop a corridor
- Avoid inefficiencies in transit times
- Improve collaboration and agility of logistics

# Work processes

The project started out first by identifying a cargo flow and integrating a software platform for demonstration on that cargo flow from Antwerp to St. Petersburg based on a tabacco cargo flow from Tabaknatie and handled by MSC. A second demonstration identified with industrial partners was based on an animal feed cargo flow by Transexpedia and handled by MSC, from Ghent via Antwerp to Riga by short sea and subsequently by rail to the Skopf (on the Russian border). During stripping and storage, the cargo is being declared to customs for import, as it is already on Russian territory. Since no final settlement on customs procedures was achieved within the project, we re-focussed on a demonstrator that would allow actual demonstration of the integrated solutions. For this purpose, a third demonstration identified with industrial partners was based on a chemical cargo flow from BP handled by MSC with destinations in Klaipeda and in Spain (inland from Barcelona).



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# Description of Results

We engaged in technical integration of the following ICT components to provide visibility in the logistics chain:

- EDC (European Datacomm) container security devices that are used to monitor location and security status of individual containers, communicating through satellite communication and the mobile telephony network
- Descartes container status & tracking server, which provides a neutral platform for monitoring the security status of individual containers
- Logit 4SEE® intermodal logistics execution platform, which enables a collaborative environment for transport operators, forwarders, and shippers to share information on intermodal shipments as well as shipment management tools

We engaged in communications with Russian Customs authorities in order to agree on:

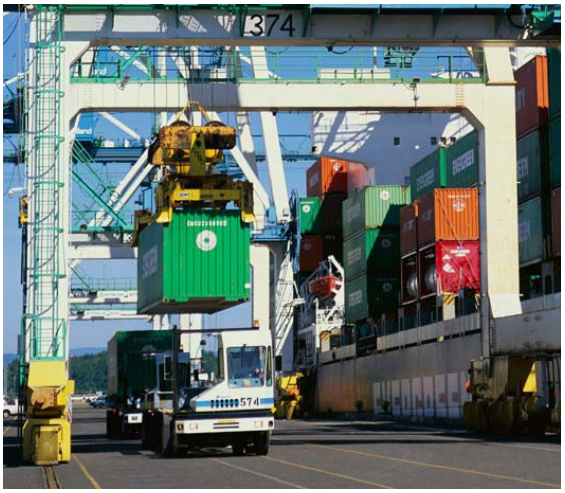
- Applying the Convention of Istanbul applies to the CSD: Allow CSD to enter and exit
- Developing a public-private initiative to provide pre-announcement of cargo import
- Defining a maximum delay for control decisions to be taken



further developed, we experienced that this was a long process that cannot be completed within the life of this individual project. Communications to Russian Customs can and will be continued by some project partners after the project.

We acquired operational experience on how the integrated platform can be deployed in a real-world case:

- How should container security device be handled and what are its limitations: Mounting, uploading date for activation of container trips, limitations as a result of containers being stowed in the hull of container ships and therefore not able to communicate, etc.
- We experienced the actual security provided by such container devices, the limitations therein, and the requirements for establishing a full-proof security regime. It is clear that operational procedures should be optmized in order to benefit most from the technical capabilities offered by such devices.
- We gained information as to how visibility can be further improved by integrating additional data sources, besides the container security devices themselves. Information from terminal (sea and inland) can provide reliable and real-time information on containers loaded and discharged, delivered to the terminal (gate-in) or departed from it (gate-out). Information from vessel movements can be used to update ETA information if container devices are not able to communicate when in the hull of the vessel.



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# Taking the results forward

The results will be taken forward in the FP7 project COMCIS (”Collaborative Information Services for Container Management”) starting 1st September 2011.

This project is about interoperability between e-freight systems that have been developed in previous projects. Based on this interoperable set of e-freight systems, shippers, beneficial cargo owners, LSPs as well as customs authorities will be offered information that will make logistics chains have shorter lead times and higher reliability.

We will unlock valuable information that is available somewhere throughout the logistics chain. There are many data sources available which will be aggregated: Data from container security devices, port communities, logistics network, terminal operators, etc.

In order to support decision processes in the logistics chain, we need to combine data sources and consolidate these data to valuable information. Interoperability between systems is only useful if it leads to improved processes. COMCIS will therefore focus on better integration of customs processes, better interfaces between sea and hinterland, as well as better control on the hinterland part of the logistics chain which is often the largest cause of variability.

For electronic data exchange between abovementioned e-freight systems, we will use the Common Framework that is emerging as a result of cooperation between EU projects and industry driven initiatives like GS-1, UBL and UN/CEFACT.

Demonstrations will take place in 3 business cases through ports of Antwerp and Rotterdam.

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# The StratMoS Project

The full name of the project is “Strategic Demonstration Project for Motorwas of the Sea”. The name signals that the project seeks to be strategic and policy oriented, and at the same time seeking for concrete and tangible results.

The core aim and idea of the StratMoS project is to promote and facilitate shift of cargo from road to seabased intermodal transport as well as to improve accessibility within the North Sea Region by supporting the implementation of Motorway of the Sea (MoS) and related transport networks in an integrated logistical chain.

The StratMoS project is funded by EU and the Norwegian government through the Interreg IV B North Sea Region Programme. The project currently comprises twenty nine partners, covering the North Sea Region from Flanders in the south to Finnmark, Northern Norway in the north. The Murmansk, Arkhangelsk and Nenets regions in Russia are associated partners.

The StratMoS project was approved in December 2007, and the first formal International Management Group meeting was held in April 2008. The project will end on 30th September 2011.

Reflecting the dual aspect of the project, the project comprises work packages that are policy and methodology oriented and demonstration projects which will provide concrete and tangible results.

# Partners involved

- Sequoyah
- Descartes (former Porthus)
- Logit Systems
- Mediterranean Shipping Company
- European Datacomm

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