

M-TRADE

Multimodal **TR**ansportation supported **D** by **EGNOS**

EGNOS and Galileo for the Multimodal Freight Transport



M-TRADE (Multimodal TRAnsportation supported by EGNOS) solution provides services for **perishable and hazardous goods tracking & tracing**.

It implements EGNOS assisted functions using GPS, EGNOS Open Service (via SiS) and EGNOS Commercial Service (via EDAS - EGNOS Data Access System).

M-TRADE is the first step towards the operative **use of EGNOS Commercial Service** in multimodal freight applications.

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What is M-TRADE?

M-TRADE (Multimodal TRANsportation supported by EGNOS) is the European platform to promote EGNOS and Galileo in the Multimodal Freight Transport Community.

M-TRADE project is managed by the **European GNSS Supervisory Authority** (GSA) through EU 6th Framework Programme funds.

M-TRADE Results

M-TRADE validated use of **EGNOS Commercial Services** for remote asset and goods **tracking & tracing**.

M-TRADE developed an end-to-end solution, **demonstrated** it in real-life operative scenarios and **evaluated** its introduction in Customs and Border Control applications.

M-TRADE Solution

The basic elements are:

- Commercial-Off-The-Shelf components;
- Standard protocols and interfaces;
- Two different onboard units using **GPS/EGNOS assisted via GPRS** and integrating **RFID** technology;
- **Web-based** applications to provide service access.

M-TRADE Demonstration

M-TRADE performed **four pilots** over European freight chains combining maritime-road-rail-river. Gathered user feedbacks showed friendly service access and benefits in operations, and provided recommendations for enhancements.

Pilot 1 - Bologna Freight Village:

Remote monitoring of locomotives position and manoeuvres during shunting operations.

Pilot 2 - Rail (Brescia-Bologna) and Road (Bologna-Modena) chain:

Tracking & tracing and temperature monitoring of a reefer carrying perishable goods.

Pilot 3 - Danube River (Vienna-Budapest round trip):

Tracking & tracing of a river vessel loaded with petrol, through three European countries (Austria, Slovakia, Hungary).

Pilot 4 - Rail chain Genoa-Ferrandina-Dordrecht Zeehaven:

Tracking & tracing of a tank rail wagon loaded with oil products, through four European countries (Italy, Switzerland, Germany, The Netherlands).

M-TRADE for Customs

Another interesting **demonstration case** is EGNOS/Galileo introduction in Customs domain.

M-TRADE study has identified opportunities for GNSS to provide benefits in Customs operations, supporting of antifraud enforcement and trade flows control.

Way Forward

M-TRADE is the first step towards the operative use of GNSS in **Multimodal freight applications** and shows the way for future steps in the **Regulated applications domains**.

Next developments are:

- The consolidation of business models and the service provisioning schemes;
- Supporting the definition of standard architectures and regulatory drivers;
- A wider experimentation in other transport markets;
- Introduction of EGNOS and Galileo certified products and services.

contact Antonella Di Fazio
ph + 39 06 4079 6329
fax + 39 06 40 999 333
 antonella.difazio@telespazio.com
 www.newapplication.it/mtrade

