“EGNOS AND GALILEO FOR MARINE AND MARITIME APPLICATIONS: OPPORTUNITIES AND CHALLENGES FOR EUROPEAN REGIONS”

16th – 17th April 2012 - Veneto Region, Venice - Italy

LogIS: the Port Community System of Venice

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The system is a web-based platform which consists of a series of application modules dedicated to the management of document workflow related to the port processes.

The actors are all operators/stakeholders who, within the Port Community, play a role in the maritime-port-logistics and transport cluster (Harbour Master, Port Authority, Shipping Agents, Pilots, Port Facilities, etc.).

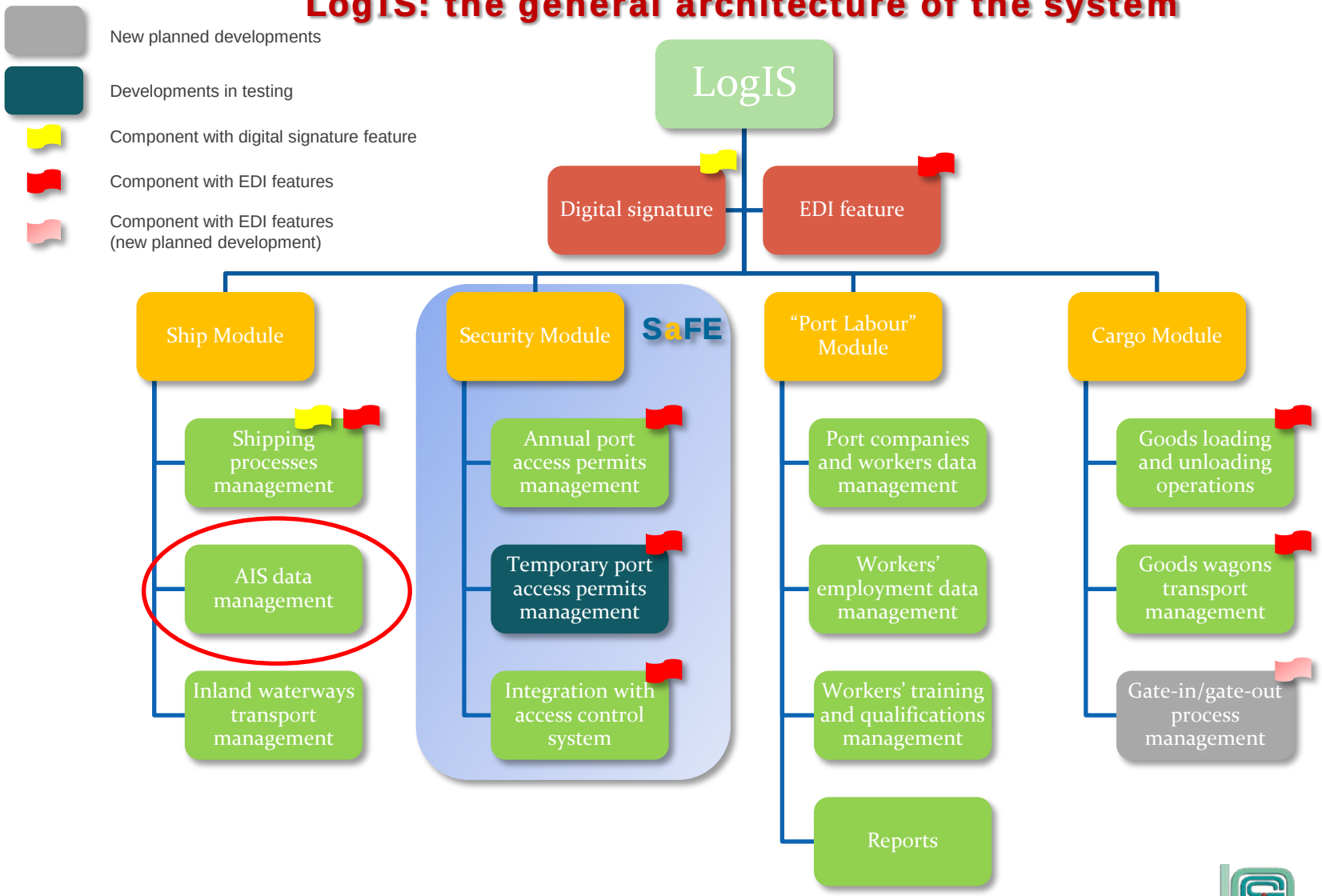
The system consists of the following main components:

1. **"Ship Module": it is dedicated to the management of the "ship formalities" related to the authorization processes which take place from the entry of a ship into the port until its exit; it has as main actors the Shipping Agents and the Harbour Master; this module can also display and process the AIS data of the ships;**
2. **"Cargo Module": it provides details about goods loading and unloading at the port terminals and it deals with the activities related to the traffic management of the goods wagons; in addition, the development of a component dedicated to the management of goods gate-in/gate-out processes is planned;**
3. **"Security Module": it provides tools to manage the requests for access permits into the port and it is integrated with the access control component of the SaFE (Security and Facility Expertise) system, dedicated to video surveillance and access control;**
4. **"Port Labour Module": it deals with the management of information about companies which operate within the port, about the workers and their training, qualifications, injuries, roles within the company, etc..**

All system components are integrated into a single platform, both in terms of application and database: in this way LogIS fulfills the logic of "single window system".

LogIS is also open to the dialogue with third-party applications through a component specifically dedicated to EDI (Electronic Data Interchange).

LogIS: the general architecture of the system

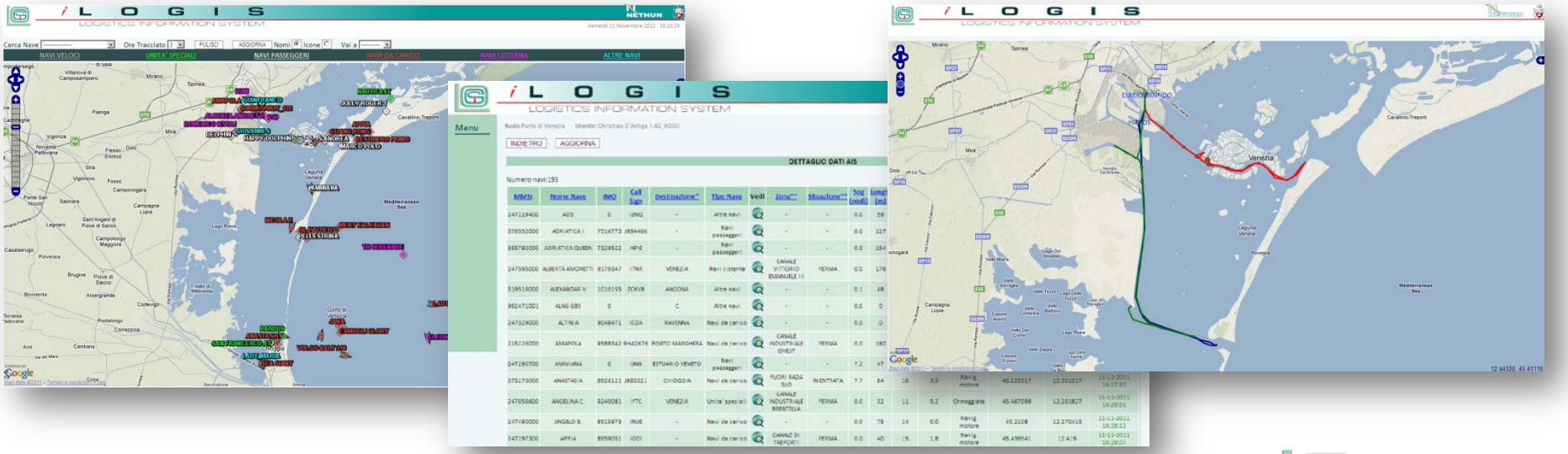


The AIS feature of LogIS

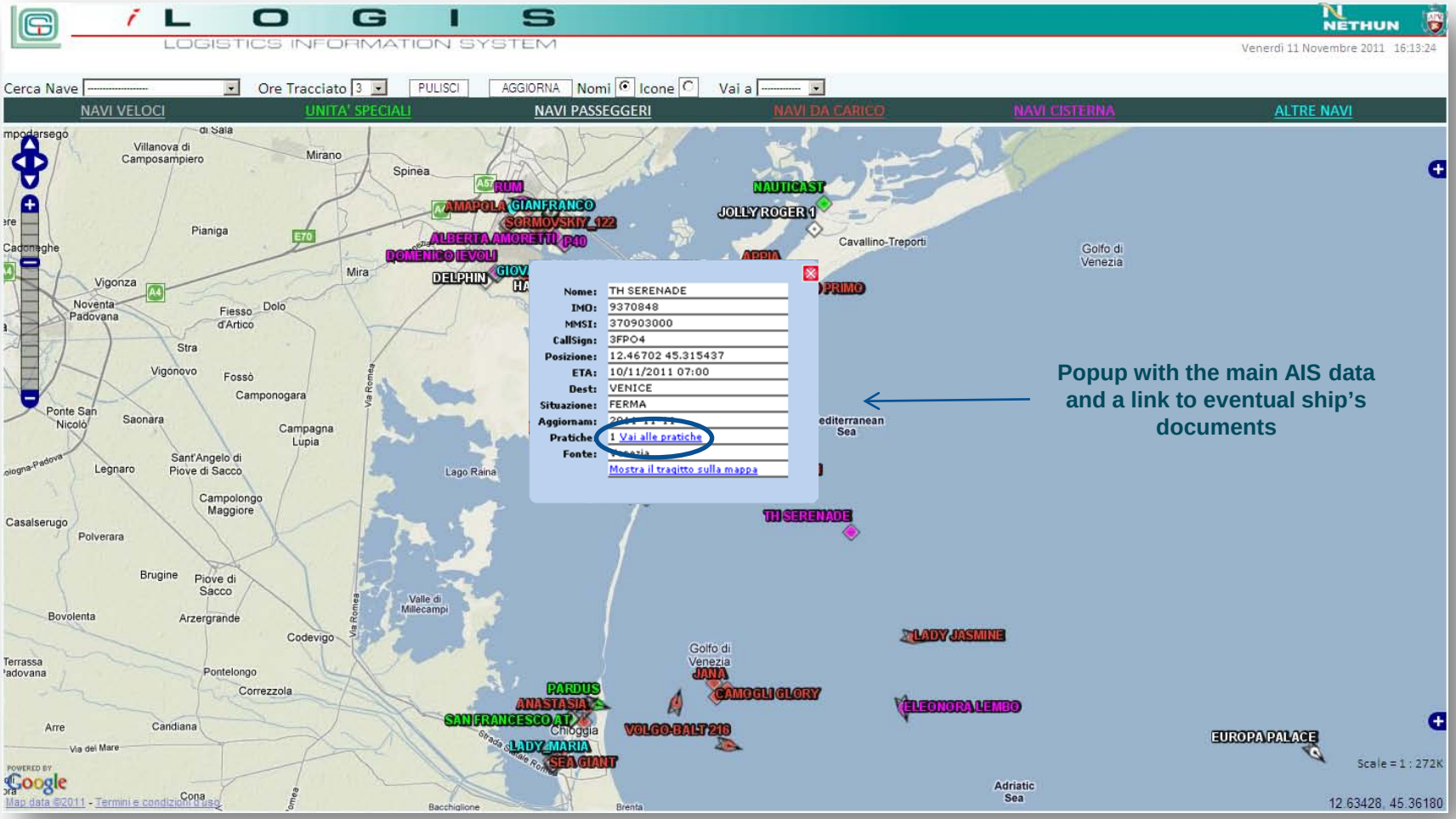
LogIS is interfaced with the Automatic Identification System. An AIS receiver was installed in order to receive the data and elaborate them in LogIS for purposes strictly related to the activities of Venice Port Authority and under the authorization of the competent Maritime Authority, the Harbour Master.

LogIS receives data from AIS and elaborates and displays them through a dedicated software component; the AIS receiver was connected with a server dedicated to the elaboration and storage of AIS data; LogIS accesses this server in order to get the AIS data, display them on maps and tables and elaborate them to obtain the following information:

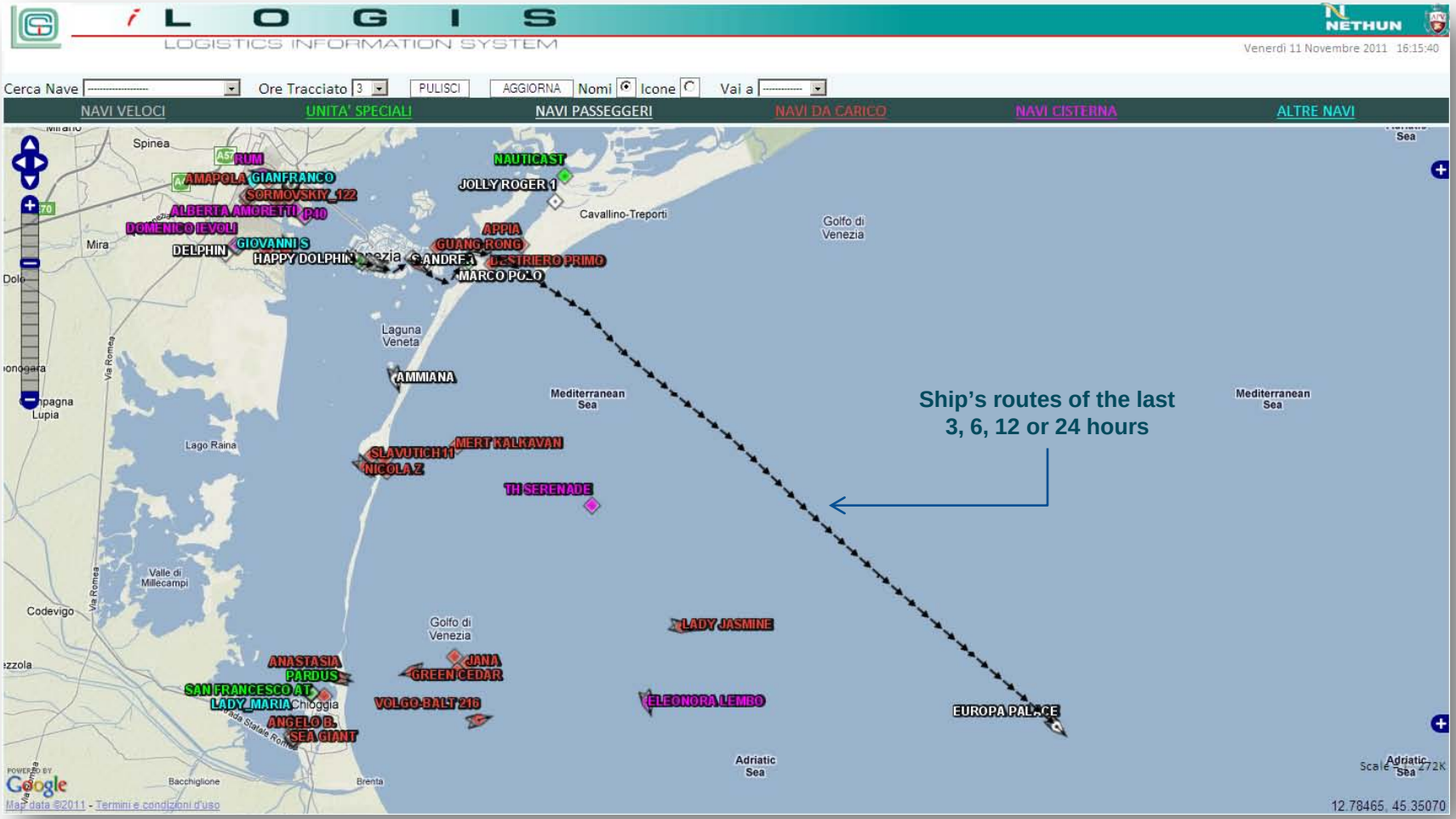
- **comparison between data from AIS and data from LogIS documents (ETA, ETD, ship name, etc.),**
- **historical data, on the basis of ship name, ship type, zone and time interval,**
- **ship routes, on the basis of ship name, ship type, zone and time interval,**
- **current and past situation of ships in port (time evolution of ships' position in port and in the roadstead).**



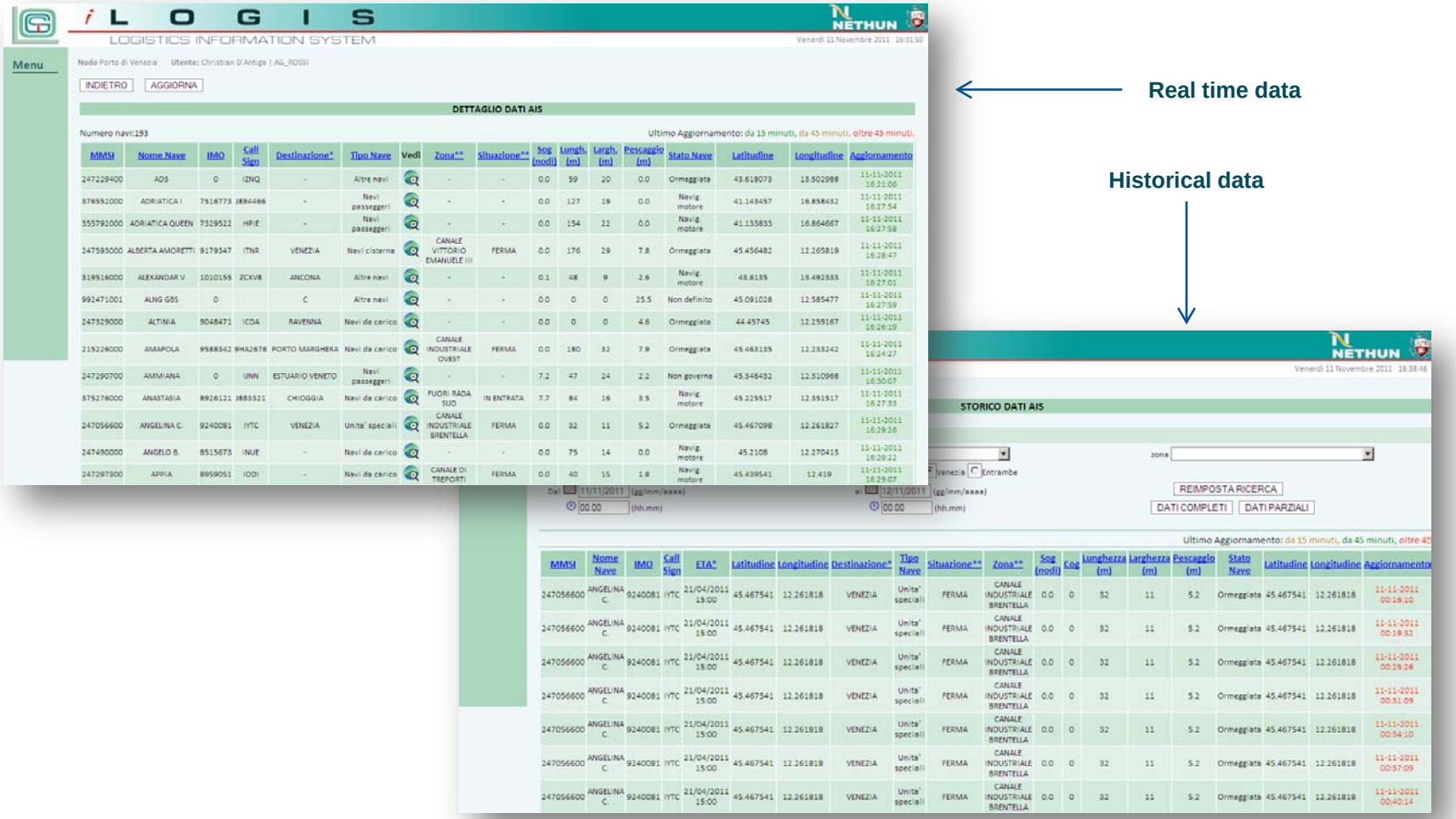
The AIS feature of LogIS
The map representation of ships' position



The AIS feature of LogIS
The ship's route



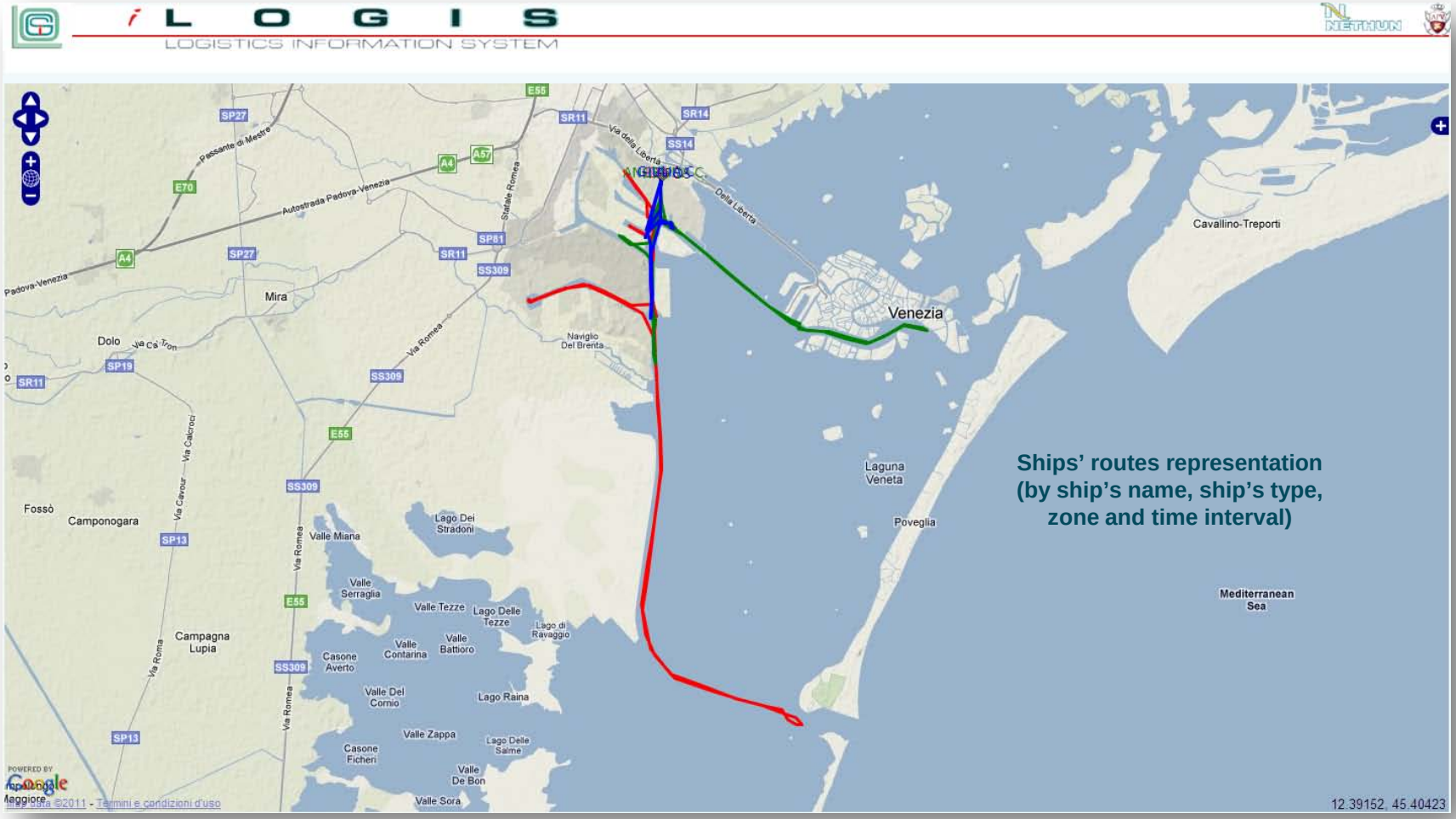
The AIS feature of LogIS
The real time and historical data



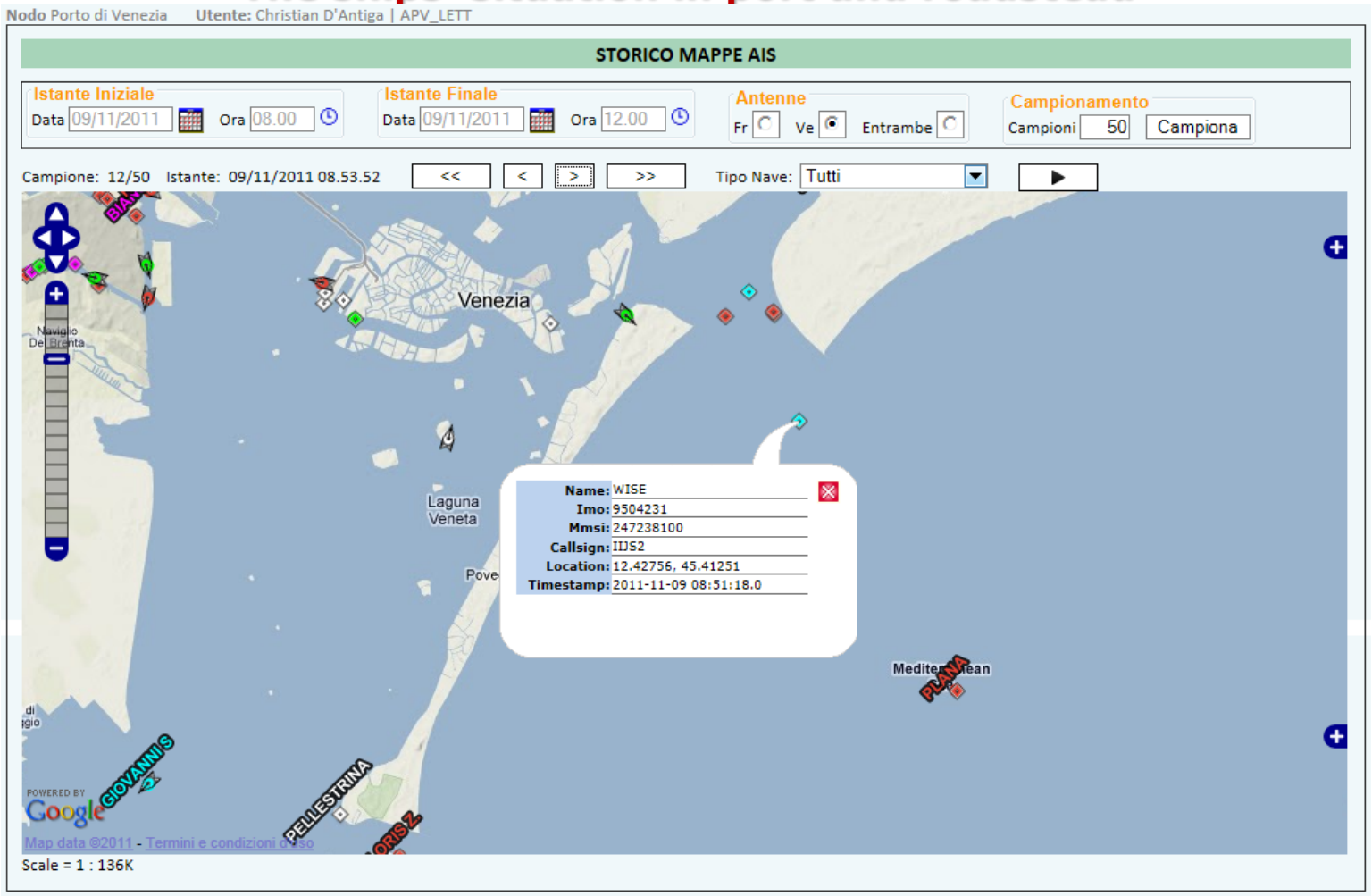
Real time data

Historical data

The AIS feature of LogIS
The ships' routes



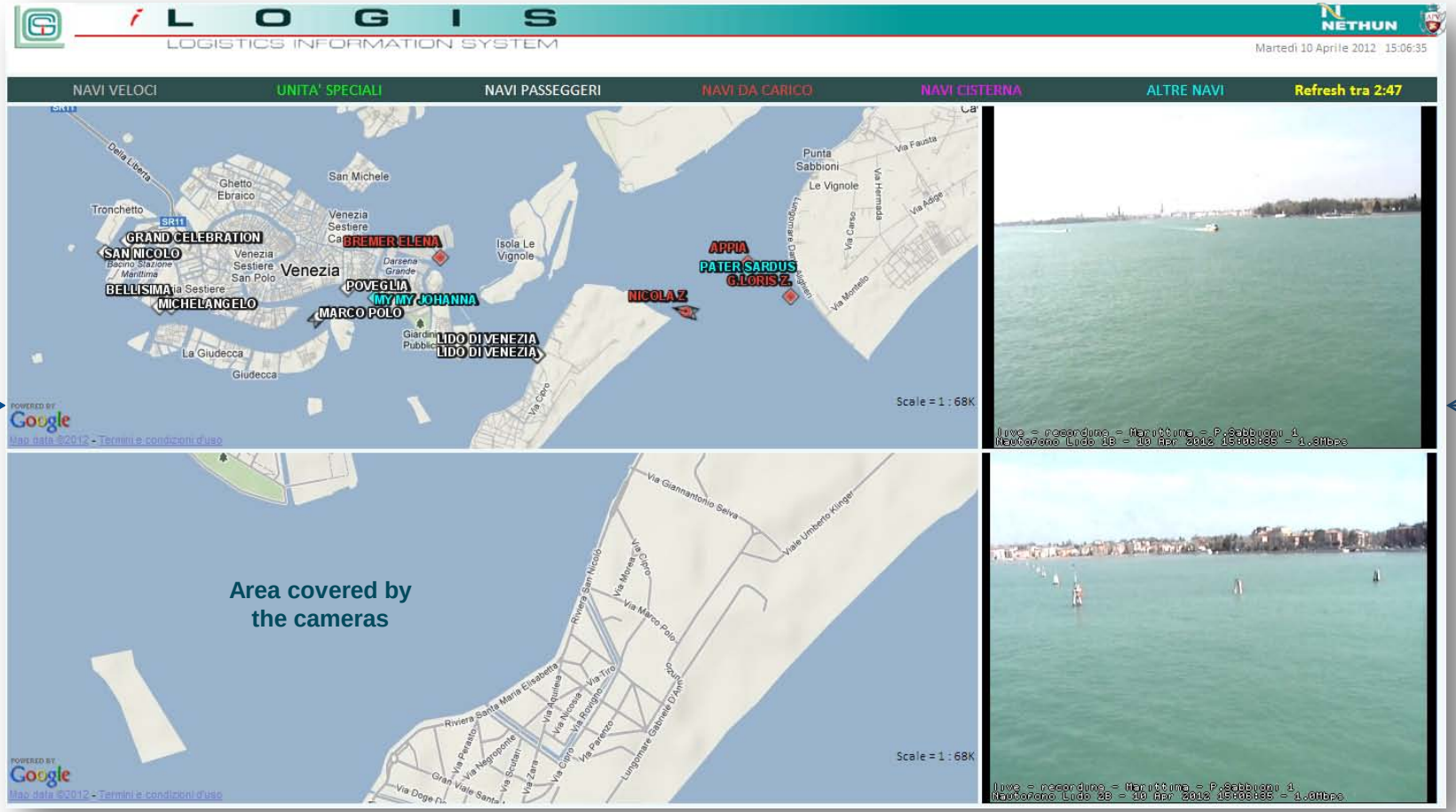
The AIS feature of LogIS
The ships' situation in port and roadstead



The AIS feature of LogIS
AIS data and video surveillance

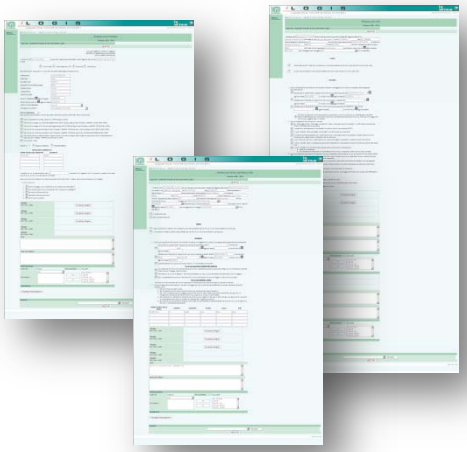
AIS maps

Cameras in real time



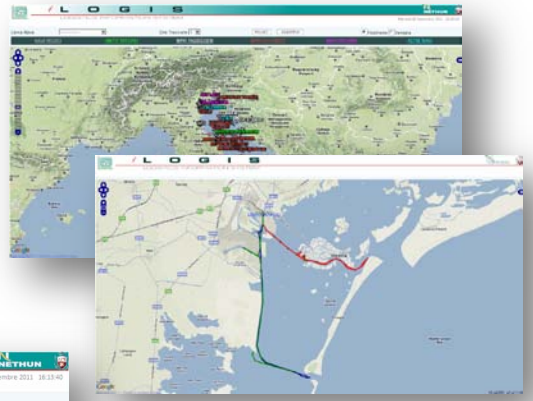
The AIS feature of LogIS
The new planned developments

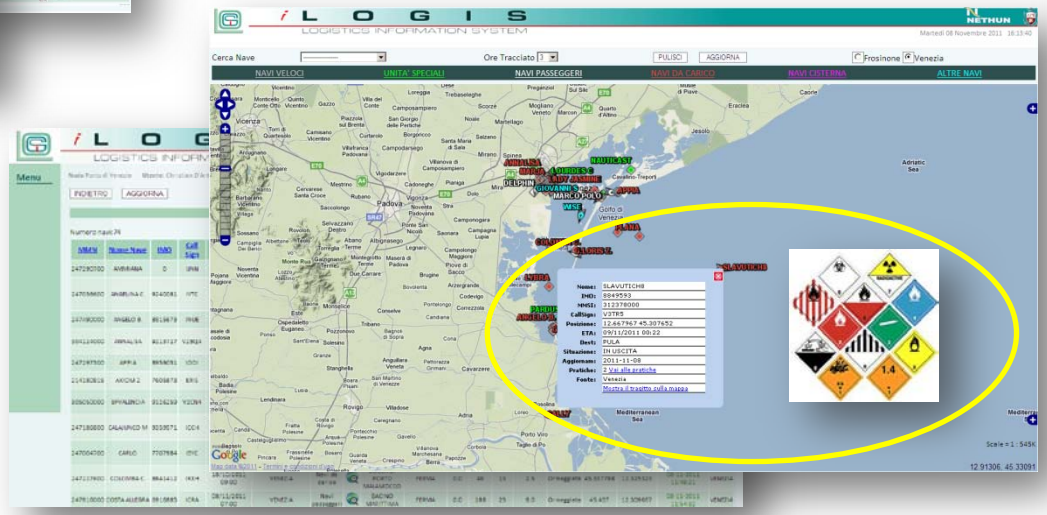
Through a mix of data from AIS and data from the documents created by Shipping Agents and approved by Harbour Master during the completion of the formalities, it will be possible to improve the monitoring system of LogIS on dangerous goods, providing more information directly on map and/or in tables.



Dangerous Goods documents

AIS data





Mix of AIS and Dangerous Goods data

THANKS FOR YOUR ATTENTION

Ing. Christian D'Antiga
phone: 041 533 4779
e-mail: christian.dantiga@port.venice.it