



An Approach to a Global Intermodal Transport System

- This initiative proposes an approach to a "Global Intermodal Transport System" to support the use of different modes of transportation improving efficiency, economy, safety and sustainability.
- The system should support the Logistic Operator in selecting the best alternatives for an intermodal transport like Amadeus does in the field of air transport.
- In the selection of the alternatives the system could consider the "environmental cost" supporting and promoting the concept of "Green Transport".
- This goal has been often pursued in the past without achieving significant results but today the objective appears more accessible thanks to:
 - Projects developed in many countries at nation-wide level
 - the flexibility offered by the technology of Open Access Web Based Services.
- The model of a Global Intermodal Transport Systems must be regarded as an interoperability layer built on existing systems and based on open access web-based technology.

- **UIRNet (national project):**
intermodal center project on license of Ministry of Transport, that consists in a platform for the management of the Italian logistic network. The mission is to improve the efficiency and the security of national logistics system. 
- **SlimPORT (national project):**
innovative project approved by Ministry of Economic Development in the sector of Port Security, Logistics and Intermodality, that integrates modular solutions to increase the performance of operations in port environments (last sea mile - first land mile). In the framework of this project it will be experimented the Metrocargo system, an innovative solution for fast loading/discharging containers from railways to trucks and viceversa. 
- **SIS-TEMA (national project):**
industrial innovation project, approved by Ministry of Economic Development, aimed at improving the efficiency of the maritime cluster and the competitiveness of logistics operators following the philosophy of "sustainable mobility". 

- **SISTRI (Sistema di controllo della Tracciabilità dei Rifiuti) – (national project)**
Launched in 2009 by the Italian Ministry for the Environment and Territory is an information system to manage and control the special waste collection nationwide and urban waste in Campania region. 
- **VTS – Vessel Traffic Services - (national project):**
integrated system for maritime control and for emergencies at sea; the customer is the Italian Ministry of Transportation, the client is the Italian Coast Guard. 
- **E-Port project (Genoa Port – Best Practice)**
project developed for Genoa Port Authority to improve maritime terminal gate-in/gate-out procedures. 
- **Logis project (Venice Port – Best Practice)**
Port Community System operating in the Port of Venice. 
- **ARTIST Architecture (ARchitettura Telematica Italiana per il Sistema dei Trasporti)**
Guideline to achieve interoperability between ITS applications - issued by the Italian Ministry of Infrastructures and Transport 

All mentioned projects may be regarded as different views of a more comprehensive model.

The maximum effort is now focused in getting a true interoperability between all these systems and the last launched project Uirnet is a clear step in this direction.

- Local/National systems consolidated
- Reluctance to share data often relevant from commercial point of view
- Low confidence in advantages
- Fear of an increase in transport costs

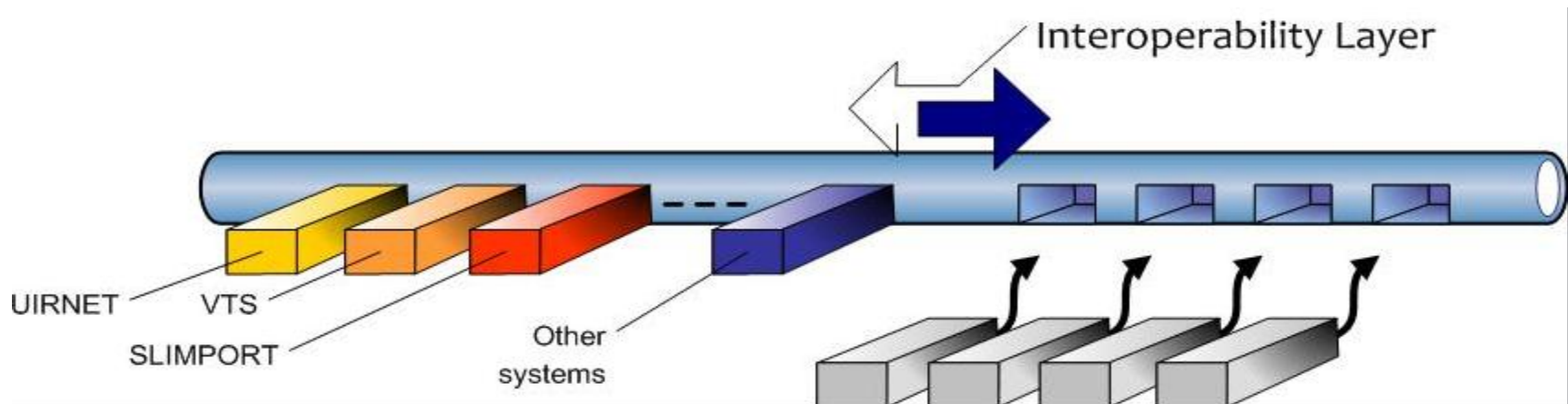
We may face two possible scenarios

- In countries where nation-wide projects or best practices are already established, the model should provide the interoperability layer between all existing applications
- In the other countries it will be possible to propose the best experiences available in the sector.

In both cases the technology must support the process never being a constraint.

The Operation Model

- Evaluate all nation wide/projects and best practices and related rules and regulations in order to define the operation framework
- Integrate European Networks available to get data when necessary (SafeSeaNet, TachoNet..)
- Build the interoperability layer where possible, otherwise propose solutions/best practices evaluated.
- Share with users advantages and objectives
- Activate the system by steps, starting with the most important features (i.e. Dangerous Goods monitoring) on selected axes (e.g. Corridor 24 – North Sea-Mediterranean Sea, The custom corridor Tianjin-Genoa)
- Set up effective information campaigns
- Decide who will be in charge of managing the system
- Establish an aggressive commercial plan with aggressive tariffs



The Challenge

- Is OECD a candidate to promote and manage this system?
- ED (FNM) may share its experience , who else would join ?

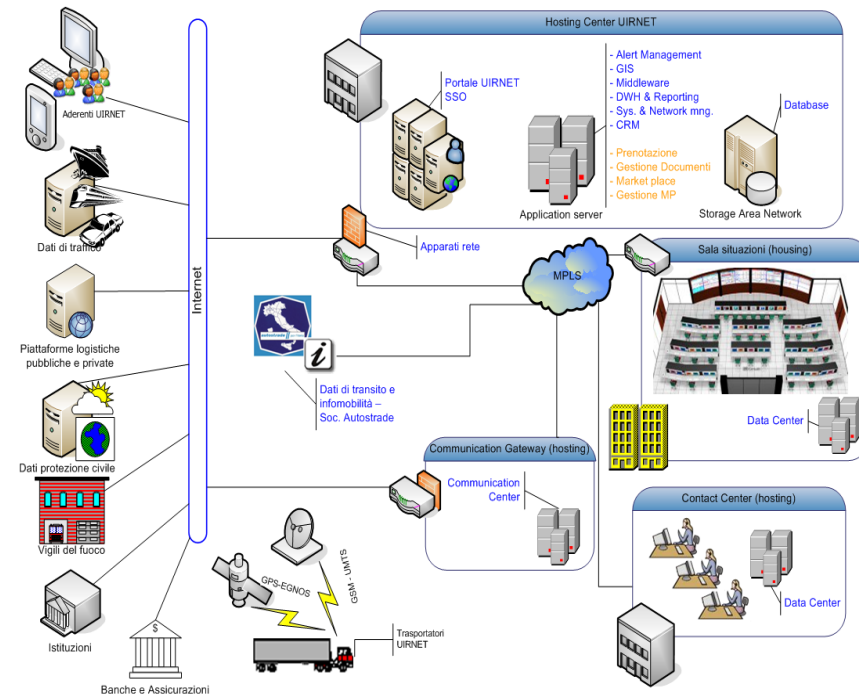
Thank You For Your Attention

UIRNET – Platform for the management of the italian logistics network

- Customer:
 - UIRNET (company joining the main italian freight villages)
 - Project on license of the Ministry of Transport
- Mission:

to improve the efficiency and the security of national logistics system developing:

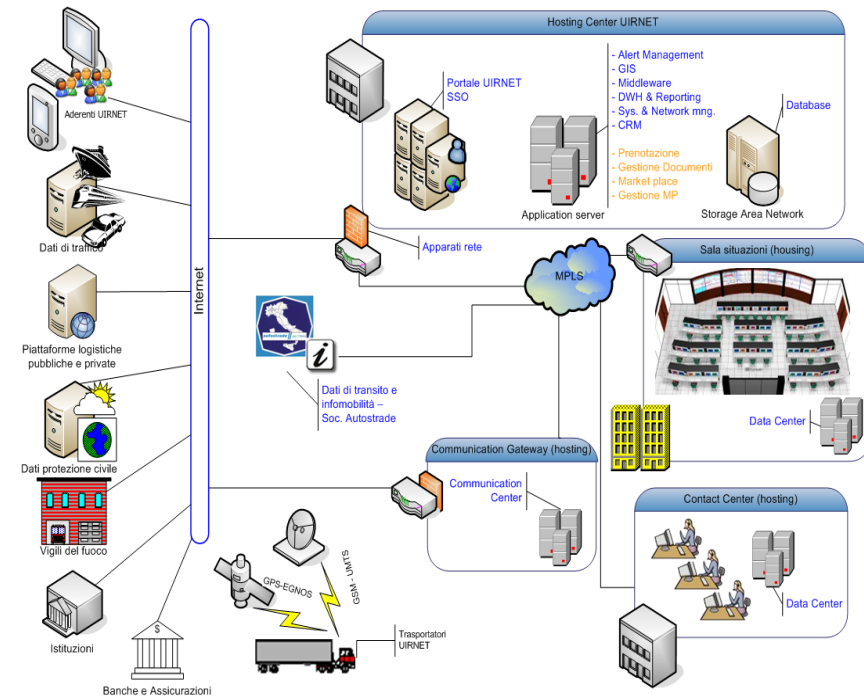
 - Services for transport operators
 - Services supporting logistics companies and public bodies
 - Services supporting freight villages
- Goals:
 - *Efficiency:* by reducing road transport overhead, optimizing road transport loads and increasing intermodal transport
 - *Security:* by transport tracking and tracing and sharing of information among the transport operators.



UIRNET – Platform for the management of the italian logistics network

Users:

- Transport operators (from micro enterprise with one truck to large international organization with hundreds vehicles)
- Logistics operators
- Ports, Freight Villages
- Public Bodies
- Manufacturing companies



SlimPORT – PORT Security, Logistics and Intermodality

SlimPORT is an innovative project that integrates modular solutions to increase the performance of operations in port environments.

- Addressed issues:

- last sea mile - first land mile

- Main topics:

- Speeding up loading, discharging and transshipment operations, increasing port capabilities
 - Integration with existing port information systems
 - Increasing of safety level in the port operations without affecting business
 - Increasing intermodality within the supply chain
 - Decreasing the traffic congestion and supporting sustainable mobility in port areas.
- Project submission : september 2008 (public tender by Ministry of Economic Development)



SIS-TEMA – integrated secure land-sea system

- **SISTEMA** is an innovative project that aims to achieve an integrated land-sea system for the freight and passengers movement, which is ecological, safe, efficient, able to promote intermodality, to facilitate the communication between the actors and to improve administration aspects.

- Addressed issues:

- last sea mile - first land mile

- Main topics:

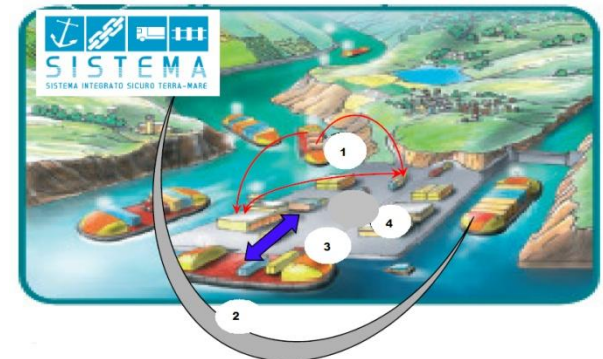
1. Data exchange Ship-Port-Vehicles
2. Anti-intrusion perimeter and underwater
3. Shipment and Landing quickly (Imbarco-sbarco rapido)
4. Safety and environmental protection

- Subprojects:

- Infomobility system
- Vehicle-Ship and Vehicle-Port Interface System
- Ship-Port Interface System
- Bureaucratic system (paper less ship, harbour, train, vehicle)
- Rail System (railway operations)

- Users:

- Ship owners
- Port Authorities
- Public Bodies (Ministry of Transport)
- Industry Associations
- Terminals



SISTRI – Waste Traceability monitoring system

- Addressed issues:
 - greater control of the handling of special waste
- Goals
 - control of legality in the process
 - computer management documentation
 - simplification in administrative aspects through the computerization processes
 - celerity in compliance
 - knowledge, in real time, of data for the entire chain of special waste
- Users:
 - Hazardous/non hazardous goods producers
 - Municipalities, institutions and companies that manage waste
 - Intermodal transport operators (terminal, logistics operator at rail stations or intermodal centers...)
 - Road haulier (collecting and transporting special waste)
 - Traders and brokers



Managed by 'Comando dei Carabinieri for environmental protection', Sistri information system is interconnected with the Coast Guard and railway companies, in order to ensure traceability of special waste, including shipping and rail.

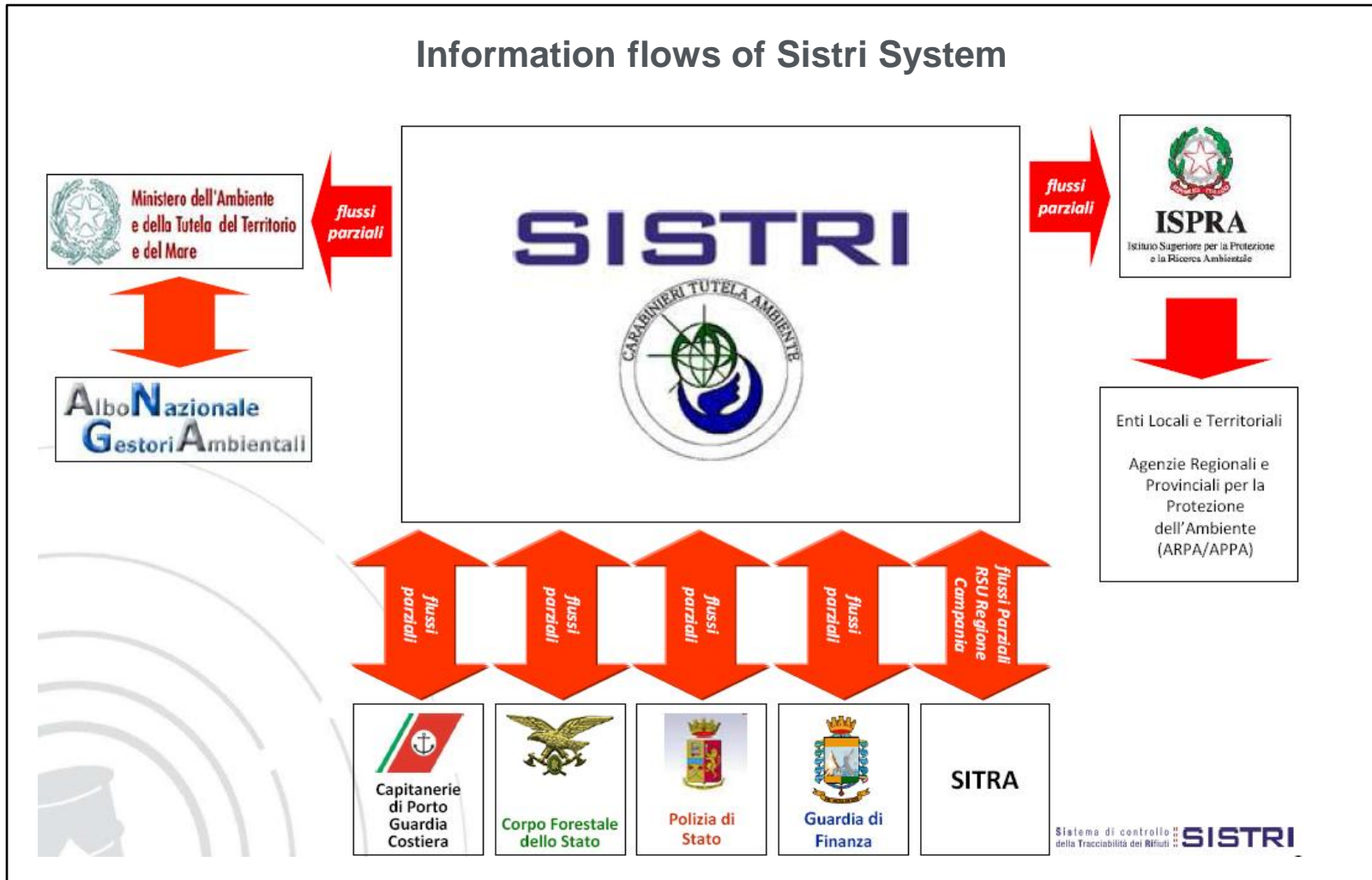


SISTRI – Traceability of waste monitoring system



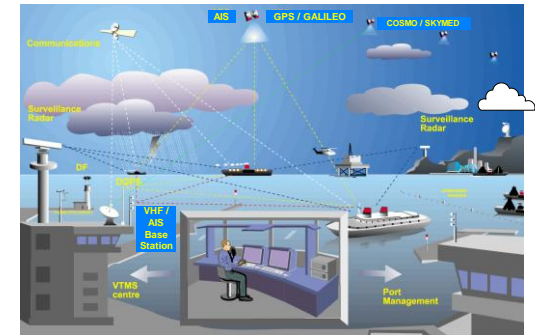
MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

Information flows of Sistri System



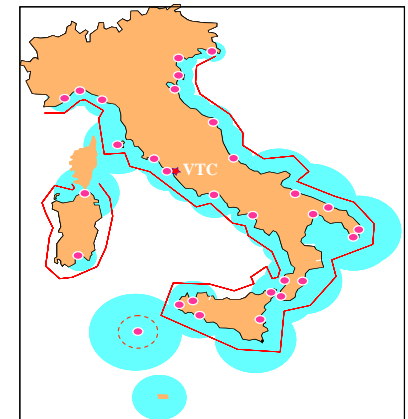
PMIS is the module of VTS that performs the Port Traffic Control

- Customer: Italian Ministry of Transportation
- User: Italian Coast Guard
- Addressed issues :
 - Administrative document management related to ship arrival and departure
 - Port traffic control



PMIS system is connected with VTS radars and TVCC. Collected data are processed and the ship position is shown on the screen port map with the correct shape and dimensions.

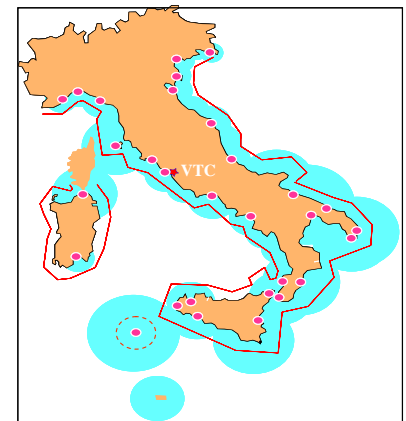
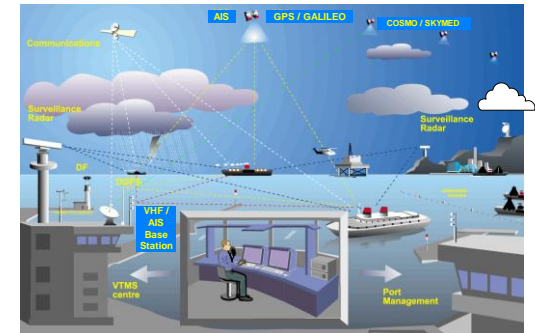
The Italian VTS (Vessel Traffic Service) is the largest system in the world for controlling on maritime traffic entering domestic water, improving safety at sea and supporting operations inside ports



PMIS is the module of VTS that performs the Port Traffic Control

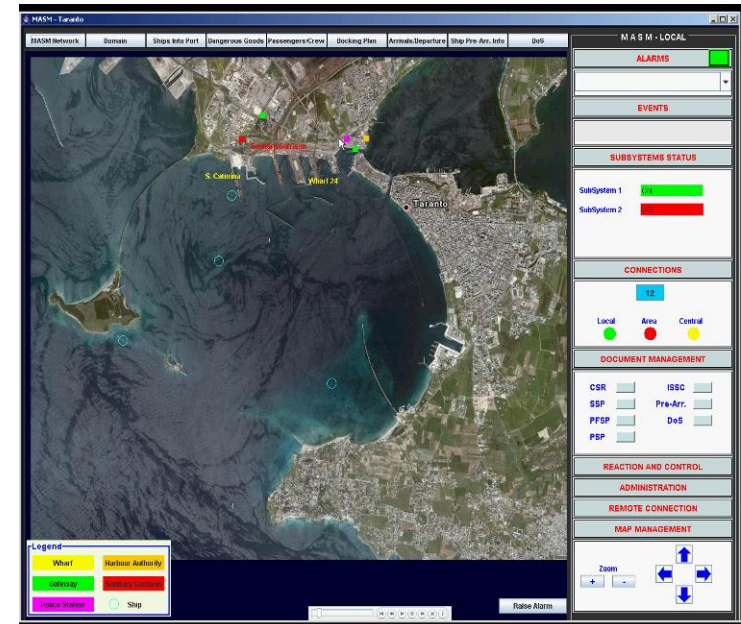
PROJECT functions:

- data collection of planned maritime operations and preparation of the Berthing Plan,
- data collection of actual maritime operations in the port,
- graphical presentation of the port situation
- handling of papers concerning ship's arrival and departure,
- management of Dangerous Goods authorization process,
- vessel movements statistics,
- documentation management on basic data structures (official documents, statistics, etc.),
- connection with external systems: VTS (radar), AIS, TVCC (cameras),
- EDI Interface for electronic data exchange with Port Operators (Freight Forwarders, Shipping Agents, Terminals, Port Authority etc.)



MASM is the module of VTS to support the management of the security in the fields of “ship security”, “port security” and “security in operations between ship and port”

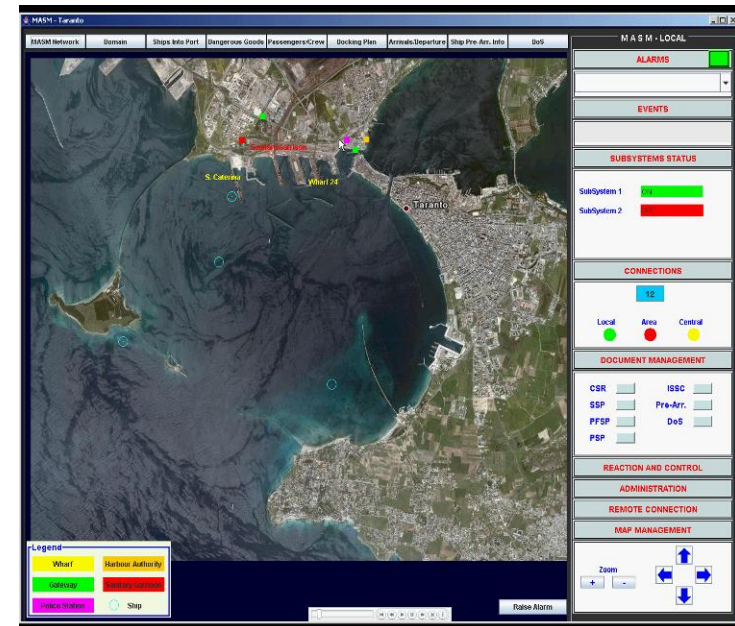
- Customer: Italian Ministry of Transportation
- User: Italian Coast Guard
- Addressed issues:
 - compliance with the international regulations applicable to maritime security, like SOLAS convention, ISPS Code and guidelines and directives issued by the Italian Government to standardize the security procedures applied on the national territory.



MASM is the module of VTS to support the management of the security in the fields of “ship security”, “port security” and “security in operations between ship and port”

PROJECT functions:

- **Document Management:** providing support in the management of relevant documentation dealing with ship security and port security (e.g. ships and port security plans)
- **Monitoring:** providing an effective mean to relate the in-progress port activity with the relevant security information (e.g. dangerous goods)
- **Reaction and Control:** providing a decision support system able to process an event raised by the “Monitoring” function and to execute a procedure as reaction to that event according to security plans





i L O G I S

LOGISTICS INFORMATION SYSTEM



- **Port Community System of the Port of Venice.**
- **Main Areas Addressed :**
 - **Ship Cycle Documentation Management**
 - **Port Labour Management**
 - **Port Access Control**
 - **Customs Documentation Support**
 - **EDI Services**



Italian telematics architecture for the transport system

Background & policy context

The ARTIST project represents the Italian Architecture designed on the basis of the KAREN and FRAME European projects results

- following the guidelines indicated in the National General Plan on Transportation
- according to the technical document about telematics in transportation systems
- according to the Second National Plan on Road Transport Telematics,

Strategic objectives

Artist aims to be the reference framework for the transport telematic systems to be designed, realised and implemented in the different applications.

Specific topics

- the state of the art on ITS at international and national level
- the logical architecture
- the physical architecture
- the organisational architecture
- users requirements

ARTIST
ARchitettura Telematica Italiana
per il Sistema dei Trasporti

