

# EUROPEAN COMMISSION - DGVII " TRANSPORT " EUROMAR EEIG

# **ITESIC Project**

# ITESIC Public Final Report

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Abstract: In this report the work done in the ITESIC

project is described in detail, its results and output, how it has been carried out and its

partners.



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# 1 INTRODUCTION

### 1.1 SCOPE

This report describes the ITESIC project in detail. It also consolidates and summarizes the work carried out and the results obtained by all the partners.

# 1.2 STRUCTURE OF THE DOCUMENT

The first two parts of this document present and summarize the ITESIC project and the obtained results.

The third section lists and describes the ITESIC project partners.

The fourth part focuses on the ITESIC project objectives that were defined by the DG 7, EUROMAR and other ITESIC partners when the contract was signed in November 98.

The fifth part describes the organization, resources and Work Packages used in order to achieve our objectives.

The sixth part presents the technical and scientific results.

The seventh part contains the conclusions of the investigation that has been carried out the output and future steps.

A Table Index and Appendix are included.

# 1.3 APPLICABLE DOCUMENTS

All Project Deliverables

ITESIC Project Technical Annex



# 2 EXECUTIVE SUMMARY

# 2.1 ITESIC GENERAL PRESENTATION

ITESIC was conceived as a way to solve the inefficiencies in the transport services in short and medium distances using newly developed technologies. The situation in Europe was far from being optimal; high costs, traffic congestion, accidents, pollution and noise, altogether undermining European competitiveness in an industry that demands flexibility, reliability and cost-effectiveness. We wanted to fill the gap between existing information systems in the industry that did not communicate to each other. This meant developing and demonstrating a one stop shop for intermodal freight transport in short and medium distance corridors by developing a working environment capable of covering the requirements of the logistic planners and operators.

To solve this issue, a group of relevant operators in the industry joined our efforts to try and overcome the actual transport problems within the European Union by offering new transport services, integrating the different modes of transport and operating as a single system. The ITESIC Consortium consists of:

- EUROMAR EEIG (APV, PORTEL and MGI)
- CONSULTRANS
- PUERTOS DEL ESTADO
- PORT OF VALENCIA
- RENFE
- CNC
- CNR
- TAB
- INNOVATION STRATEGIES SL

Description of the work carried out during the project:

- We have simulated and studied the behavior of two corridors, (Lyon Marseilles; Madrid Valencia), by using the Virtual Transport Chain Simulator (VTCS) developed within the MARTRANS project. We have simulated the impact of implementing the results of the different technologies in the corridors and produced a best case scenario for each one of them.
- 2. During this demonstration phase of the ITESIC project we have validated the concept of a one-stop shop for intermodal freight transport within short and medium distance corridors.
- 3. We have built two full fledged demonstrators (Valencia-Madrid and Marseilles-Lyon) to construct a simulation model. based on Internet Technologies and EDI messages, linking the modal operators present in two corridors: Valencia-Madrid and Marseilles-Lyon.



- 4. We have tested the two demonstrators in both corridors in a laboratory environment and received feedback from the users.
- 5. We have evaluated the results of the test phase and improved the demonstrators in order to support the whole cycle of an intermodal transport of goods as a door-to-door service.
- 6. We have worked and involved key actors in the industry in both corridors that include logistic operators, maritime agents, transport operators, road and railway operators.

### Our achievements:

The ITESIC project has achieved its goals and the outputs are:

- 1. A common ITESIC "umbrella" capable of acting as a single point of contact between the clients, (logistic operators, importers/exporters), and the modal operators, (road and railway operators, shipping agents), in order to move cargo in a door-to-door service.
- 2. An acceptance of the potential users of this approach. During the test phase we obtained a positive user reaction to the system in both corridors.
- 3. Because of our success with the pilot test we believe that the ITESIC system will be implemented in a real production environment. For this purpose, we have prepared a Exploitation plan.

Next steps: The next step is to execute the exploitation plan.

# 3 PARTNERSHIP INFORMATION

Considering the objectives pursued for the ITESIC project, we deemed it would be interesting to gather a consortium of entities, representative of the would-be users and suppliers of the ITESIC services. This is the reason why the ITESIC team was set up with the following partners:

# **EUROMAR**

The coordinator partner has been Euromar EEIG, a European Economic Interest Group formed in 1996 with the aim of consolidating the benefits of InformationTechnology and telematic applications for intermodal transport activity in the Mediterranean region. In this case 3 members of EUROMAR have directly participated in the project; GYPTIS (independent company created by the Port Community of Marseilles), PORTEL (company that promotes the implementation of advanced technologies in all Spanish commercial ports) AND THE AUTORIDAD PORTUARIA DE VALENCIA (Valencia's Port Authority) which has played the role of Project Manager.

The rest of the Partners are:

- RENFE: the Spanish Railway Company



- CONSULTRANS: Consultancy firm with more than 100 projects on transport-related matters.
- CNR: Compagnie Nationale du Rhone is the public body in charge of exploiting and fitting out the Rhone river.
- PUERTOS DEL ESTADO: The Spanish government institute that owns and operates all the ports in Spain.

Two Subcontractors have also been actively involved in the project:

- CNC: Intermodal Transport operator in France and throughout Europe.
- INNOVATION STRATEGIES: Consultancy firm that helps its clients achieve business and technological development by applying Information Technology with a large experience in the transport sector.

(Note: Detailed information regarding Partners of the Project is attached in Appendix 1)



# 4 OBJECTIVES OF THE ITESIC PROJECT

The originally planned objectives for the ITESIC project are grouped in three categories :

- Flexibility
- Reliability
- Customer Service

These objectives are explained in the following Master Table of Objectives:

# 4.1 MASTER TABLE OF OBJECTIVES

EVALUATION CRITERIA	OBJECTIVE/Measure of Success	KEY ACTIONS
● Flexibility	• Capability of meeting the changes of demand/60% of containers arriving by sea or deposited in the terminal should leave in the next available train	Advance demand forecasting though anticipated reservation.
	• Reduce waiting time at the terminals/containers should be	operators.
	admitted until 1 hour before the departure of the train.	information systems so all the information is transferred electronically without delays.
		Automatic customs clearance
Reliability	Less than 30 minutes delays	Warning clients if delays of more than 30 minutes occur
Customer Service	Unified pricing schema.	Provide a single price for the whole door-to-door service
	Automated invoices.	• Interface of the administrative system of the operators.

User's showed their satisfaction with the level of objectives achieved during the project that clearly demonstrated the potential benefits of the concept. The concrete result of the actions performed has been as follows:



- Advance demand forecasting through anticipated reservation: By using the ITESIC system Maritime agents, Rail/River/Road operators and Inland transport operators can foresee reservations.
- Connecting with road operators: Road operators are involved in the business cycle of the system. They receive through the system transport orders for taking and picking containers.
- Interface the modal information systems so all the information is transferred electronically without delays: All the agents access to the same system that stores the information. Additionally this information is also sent to external systems via EDI/XML messages immediately after creating or modifying the documents.
- Automatic customs clearance: Not supported during the demonstration phase, customs to join the system during the exploitation stage.
- Warning clients if delays of more than 30 minutes occur: All agents involved in a specific operation are immediately informed by receiving notifications from the system.
- Provide a single price for the whole door-to-door service: Not supported during the demonstration.
- Interface of the administrative system of the operators: Not supported during the demonstration.

As it is shown above, some key actions present in the master table of objectives has been postponed until the exploitation stage. From the point of view of the users it was more important, first, to solve operational and functional problems and, then, to solve commercial aspects and to include the customs into the business cycle, so according to their requirements priorities were refocused. Users perceived that trying to solve commercial and legal aspects along the operational ones would severally diminish the chances of success of a full-scale, real-life implementation of the results of the project. The idea is to gradually implement the commercial functionalities once the operational system enters into the exploitation stage.

Customs Authorities were present at the meetings and they show their explicit interest in the full implementation of the ITESIC concept. They clearly stated their willingness to integrate ITESIC with the current customs clearance process based on EDI messages.



# 5 MEANS TO ACHIEVE THE OBJECTIVES

### 5.1 PRESENTATION OF THE PROJECT ORGANISATION

The organizational structure of the project has been based on the following:

- Steering Advisor Committee
- Project Management Board (PMB)
- Quality Control Manager (QCM)
- Technical Team
- Awareness Team
- User Group

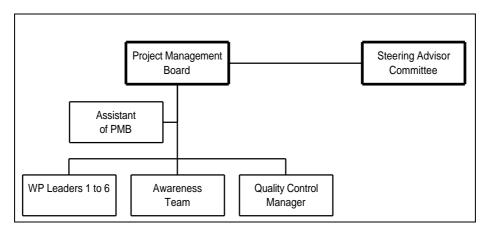


Figure 1- Organizational Structure of ITESIC

The project has been managed by the Project Management Board, under the supervision of the Steering Advisor Committee.

Given the importance of the project, the Chairman of the Project Management Board and Project Manager has been Francesc Sanchez Sanchez, IS Manager of the Port of Valencia and the person who implemented the EDI systems connecting the Ports and the customs in Spain. Miguel Fernandez as a Technical Assistant has assisted him. Mr. Fernandez is an expert in Electronic Commerce and Transport Telematics and has been involved in managing large international projects. A senior professional, the Work Package Leader, has led each Work Package. There were frequent contacts between the Project manager, his assistant and the Workpackage leaders on management issues.

The Steering Advisor Committee has been formed by a responsible representative of each project partner.

The Project Management board has been responsible for the day-to-day co-ordination of the project.



The Quality Control Manager has been responsible for ensuring the quality within the project towards the PMB.

A Work Package Leader has been nominated for each Work Package by the partner responsible for the Work Package. He has been in charge of the technical co-ordination and control of the project teams which have been in charge of the tasks dedicated to the WP.

An awareness team was formed by a representative of EUROMAR in each of the countries in which it operates namely (Portugal, Spain, France, Greece, Italy). The awareness team has been responsible for the dissemination of the project outcomes and the liaisons with the supporting parties. It has organized promotional activities, such as workshops, prepare awareness materials, brochures, presentations, etc. for the ITESIC Project.

### 5.2 RESOURCES INVOLVED IN THE ITESIC PROJECT

### General presentation

The partners have brought:

- skilled and experienced men
- · existing computer systems : PCCS, data interchange systems
- · computer and telecommunication means
- methodological experiences of analysis and development of large computer and telecommunication systems
- · experiences of system management
- pedagogical and training skills and experiences
- · skills and experiences within the field of awareness activities

All these means were put in common, with the utmost transparency, to the benefit of the project and all partners, in a dynamic atmosphere.

# Use of existing systems

→ Computer systems

The systems of the different companies, especially Gyptis, Portel, Innovation Strategies, RENFE, CNR and CNC were highly used.



### → Telecommunication means

The different partners subscriptions were highly used (X25, X400, Internet)

# Other supplies

- Awareness
- · Powerpoint presentation
- Press releases
- ITESIC newsletters

#### **WORK PROCESS** 5.3

The achieved work details and the results are presented in various documents concerning the project and in particular for each work package which comprises a project plan, working papers, synthesis reports (please refer to Appendix II which presents the list of deliverables).

The work consisted of 6 work packages:

- 1. Definition.
- 2. Verification.
- Demonstration.
   Benchmarking.
- 5. Exploitation and dissemination.
- 6. Project Management

# that could be summarized as follows:

- Model the situation of the two corridors and, by using the Virtual Transport Chain Simulator<sup>i</sup> (VTCS) developed within the MARTRANS project, establish the current situation of the corridor in terms of:
  - Efficiency of the corridor/level of service being provided to the users.
  - Cost of transporting goods.
  - Environmental impact.

The model was to take into account the whereabouts of the corridors, namely:

- Existing infrastructures in each corridor: ports, roads, railways, inland waterways, existing multimodal terminals.
- Available services: maritime lines, inland waterway services, road haulage, rail
- Information Services: Port Community System, Railway Information Services, EDI based custom clearance, integration of the different information systems in the transport chain.

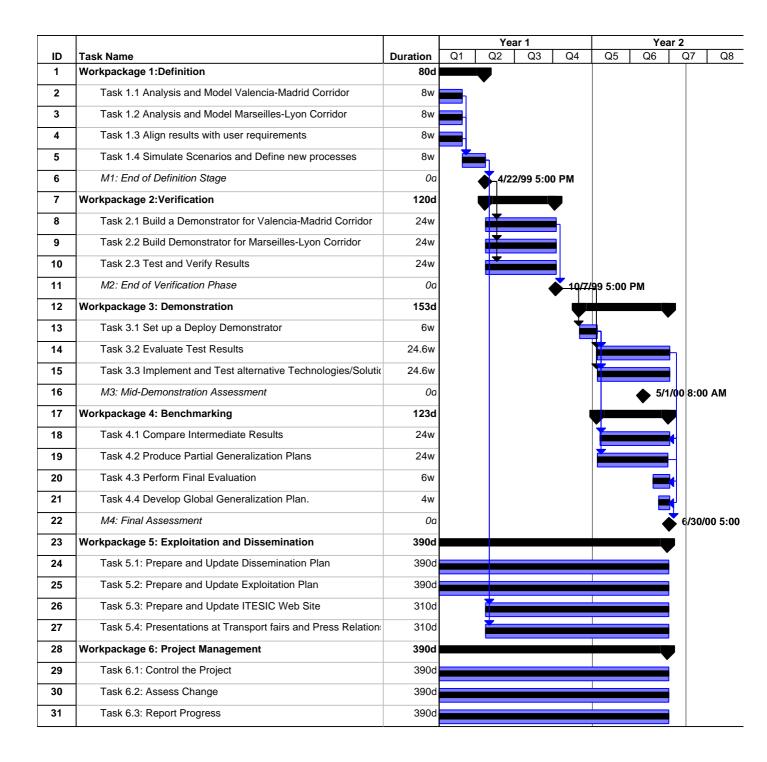


- 2. Simulate the impact of implementing the results of the different technologies in the corridors and produce a best case scenario for each one of them.
- 3. Redesign the operation of each corridor based on the best case scenario built with the conclusions of the simulation process. Gain support and ownership from the prospective users, focusing the new design on their real requirements.
- 4. Build the necessary new information systems and integrate existing technologies to support the newly designed operation for each corridor.
- 5. Test the new operation and information systems in a real situation in order to obtain meaningful conclusions.
- 6. Transfer and disseminate the results.
- 7. Prepare a plan to exploit the results.

From items 2 to 6, the work had to be iterative all along the demonstration phase.



# **Project Bar And Pert Chart**





# Work Package 1: Definition

During this work package work was concentrated in creating a model of 2 corridors in order to see how changes in the procedures, in technology and in the information flow will affect them. The actual simulation was done by using the Virtual Transport Chain Simulator, VTCS, built by the MARTRANS project.

The simulation work was aimed at achieving 2 objectives :

- To demonstrate that the impact that the ITESIC approach was proposing created significant value.
- 2. To serve as a communication tool in order to facilitate the definition of the new processes and information flow within the both corridors.

In order to achieve the above mentioned objectives the work performed was :

- Prepare a Data Information Pack aimed at formalizing the information required to construct the simulation model. This was done according to the requirements of the logistic planners and operators.
- Create 3 different models in order to obtain a set of relevant comparisons.
   These 3 models were:
  - A « modal » model : depicting the behaviour of the corridor when it was under the operation of a single mode of transport.
  - A « Intermodal » model : describing the behaviour of the corridor when it was operated using various transport modes under the current procedures and information flows.
  - An « ITESIC » model : describing the foreseen behaviour of the corridor under the ITESIC approach.
  - Simulate the 3 models above mentioned.

<u>Achievement:</u> After the conclusion of this workpackage the best case scenario for each corridor was defined.

# Work Package 2: ITESIC System Design

During this Work Package a solid and "reusable" demonstrator for both corridors was built based on the generic design prepared in the previous workpackage. Therefore, a common ITESIC "Umbrella" module was built, serving as the backbone of the whole system integration.

This "umbrella" approach permits the replication of the ITESIC concept in any other corridor, because it eliminates the need of connecting disparate systems between themselves. No matter which systems are available in the corridor, they just have to be plugged into the ITESIC module via standard messages.

Therefore, the work performed during this workpackage was concentrated in creating the demonstrators and, after this, testing and verifying the results. The obtained demonstrators are made of:



- An Extranet web-site
- · A Database accessible via web
- Implemented EDI/XML messages.

<u>Achievement:</u> At this point of time we created two demonstrators based on Internet technologies and EDI/XML messages that covered the requirements of the users, (logistic planners and operators), in order to give a door-to-door service in intermodal corridors.

# Work Package 3: Demonstration

Once we built the demonstrators, we set up the system in a real live environment in both corridors.

Additionally, we also prepared training sessions where we met with each user and explained the system and the test that should be performed. We also delivered test guidelines in order to define the test process from the point of view of every agent involved in the process: Intermodal Transport Operator, (ITU), Maritime Agent, (MA), Inland Transport Operator, (ITO), Rail/River Operator, (RRO), Container Depot, (CD) and Stevedore, (ST).

We collected feedback from the users and, in parallel, we were updating and improving the system. At the end of this test phase we obtained a system that was able of providing users with information about the different existing transport options in order to send their goods from one place to an specific destination. Also allowing the booking of a service, the issue of a transport order and obtain tracking information.

<u>Achievement:</u> After the demonstration phase we proved that the demonstrators fulfilled the requirements of the users: we built two full-fledged demonstrators capable of becoming a single point of contact between the clients in order to move cargo using intermodal transport as a door-to-door service.

### Work Package 4: Benchmarking

After collecting the feedback from the users we analyzed the different results obtained within the two corridors. The results of this comparison were the identification of common information gaps and other information gaps associated with each corridor. During the demonstration phase we also studied more technical aspects such as transfer rates, efficiency of the connections, etc. that affected to the reliability, flexibility and level of service of the system.

Taking into account the feedback obtained from the users during the demonstration phase and the result of the analysis we made, we prepared an exploitation plan in order to implement this approach in a real production environment. Our objective is to make this implementation in more than one corridor and in more than one country. This demonstration phase helped us to identify barriers and prerequisites that should be solved before implementing the ITESIC system.



<u>Achievement</u>: At the end of this work package we had a generalization plan in order to implement the ITESIC system in intermodal corridors in Europe.

# Work Package 5: Exploitation and Dissemination

The strategy followed to disseminate the results of the ITESIC project was based on the different stakes of the project. The main purpose of the project was to demonstrate that the integration of technology is a solution to promote intermodal transport as a competitive alternative to pre or post shipment of containers. The level of the dissemination activities on both corridors is the following:

- Political
- Business
- Technical

Regarding the **political** aspects of the dissemination activities, the main objectives were to convince, at a high level, the people involved in shipping business and administration that technology integration is a solution to promote intermodal transport. The dissemination activities have been lead by participation to meetings whose topic was the development of new applications applied to transport activities.

The different meetings during which the ITESIC project was presented were:

- professional associations in Marseilles (AACN, AOTM, UMF) which are interested in development of information systems related to transport.
- National French administration steering committee during which the future of new port information systems is discussed. One of the main benefits of ITESIC is the consensus among the main ports in France to manage electronically the intermodal transport. The new information system of Marseilles and Le Havre port will comprise an intermodal module whose ITESIC could be a basis. This was the conclusion of a meeting held in Paris with the DTMPL (French Ministry of Transport).
- During the year 2000, other meetings with national administration bodies have been held in Spain. In these meetings, the ITESIC project was presented to the Ministry of Transport, Customs Authorities, Railway Authorities, Puertos del Estado, that is the government institute that owns and operates all the Spanish ports, and the regional governments of Madrid and Valencia.
- ITESIC will be presented during the next ACTIF sessions. ACTIF (Architecture Cadre des Transports Intelligents en France) is a French initiative to build an ITS Intelligent Transport System in France. Gyptis and CNC are members of the "intermodal platform management" commission. The commission comprises representatives of ports like Marseilles, Dunkirk and Le Havre, consultants and operators of intermodal transport or railways.

Concerning the **business** aspects of the dissemination, ITESIC was present during a global meeting held in Marseilles on the 27<sup>th</sup> April 2000. The theme of this meeting was



the celebration of the 10th birthday of the Marseilles Port community information systems. During this meeting, the future of information system has been tackled and the ITESIC system has been presented to the whole port community. About 400 managers, users and politics attended this meeting.

We have worked with key actors of both corridors and we have maintained several meetings with logistic operators, maritime agents, transport operators and road and railway operators in order to keep them informed and receive their feedback. The ITESIC system has been tested by "innovative" companies, whose representatives are people involved in the port community evolution. These companies were:

MADRID – VALENCIA		LYON – MARSEILLES	
Company	Role	Company	Role
RENFE-TTE. COMBINADO	RRO/ITO	HBI	ITU
	/RC		
PUERTO SECO	RRO	CNC	ITO/CD
SPAIN RAIL	ITO	SMI	MA
LOGITRANS EXPRESS	ITU	CNR	CD
ISAMAR	MA/ITU	SUD LOGISTIQUE	ITO
MEDITERRANEAN SHIPPING	MA/ITU	LACTALIS	SHIP
PUERTO RAIL	RRO	TAB	RC
VALENCIA PORT AUTHORITY	PA	LACROIX	ITU
TRANSBULL	MA/ITU		
ASECOMEX	ITU		

Two newsletters issued at key periods of the project, have been sent to about two hundred companies involved in the corridors shipping activity. Additionally, several press releases have been published in magazines and newspapers addressed to the transport sector actors, such as "Diario del Puerto", "Comercio Exterior" or "L'Antenne".

Finally, we prepared two final workshops, (one in each corridor), where the customs authorities were also present. The aim of these meetings was to discuss the viability of exploiting the system in a production environment and an initial generalization plan was produced.

In terms of **technical aspects**, in Marseilles, the functional elements have been especially studied in collaboration with Sud Logistique which is a company whose aim is to promote the intermodal transport from and to Marseilles. This company is held by major actors in Marseilles shipping activities and has been the key partner in order to select partners for the functional studies and to dispatch the results towards intermodal transport users.

In Valencia, we have collaborated with Infoport Valencia, a company that is in charge of the exploitation of SIC, the port community system of the port of Valencia. This collaboration was a key element of the successful of the project in Spain, because they help us to integrate the ITESIC system with the PCS of Valencia.

Achievement: In the course of the project we disseminated the results obtained in the



project to all members of the consortium, the user group and other relevant actors of the corridors. The dissemination tasks have been led in order to promote the technology integration related to information systems applied to intermodal transport. Our strategy tried to cover political, business and technical levels in order to increase the impact of the ITESIC project demonstration. Before the project, the integration of technology was an hypothetical solution to promote intermodal transport. Now this solution appears valid and our dissemination strategy allowed the different entities involved in shipping and intermodal.

# Work Package 6: Project Management

EUROMAR was the responsible for the project management since its company members have a wide body of experience in the field of Information Systems applied to telecommunications and in Intermodal Transport Systems. The project was managed by a Project Management Board under the supervision of the Steering Advisor Committee.

The project achieved its objectives on-time, according to the original project plan. It was only a little delay in the WP2 due to the complexity of building the two demonstrators. On the other hand we brought forward tasks belonging to WP3 and WP4 in order to facilitate the integration of existing systems and the addition of new functionalities.

The project manager delivered progress reports every six months describing the activities undertaken and updating the project plan and the Manpower table.

Achievement: The project achieved its objectives without significant delays.



# 6 SCIENTIFIC AND TECHNICAL DESCRIPTION OF THE PROJECT

Our idea was to develop and demonstrate a one stop shop for intermodal freight transport in short and medium distance corridors by developing a working environment capable of covering the requirements of the logistic planners and operators.

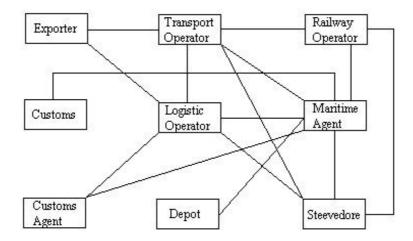
The work performed in order to achieve the above mentioned objective has been as follows:

- 1. We have designed a technical solution based on unifying the procedures of all the agents involved in the intermodal transport of goods.
- 2. We have proved this design by using the Virtual Intermodal Transport Chain Simulator comparing the results with other two models.
- 3. We have validated the design with the users and we have readjusted it in order to develop a prototype.
- 4. This prototype is made of:
  - New software components that add new functionalities.
  - An EDI/XML message structure in order to integrate and communicate the existing systems in the corridor.
- Once we developed the prototype, we tested the system in a real environment with users in both corridors. The results were strongly positive, indicating that we had indeed helped make operations more efficient along these corridors, at least in a test environment.
- 6. After the demonstration phase we prepared an exploitation plan in a real production environment that achieves the initially planned objectives.

# 6.1 ITESIC CONCEPT.

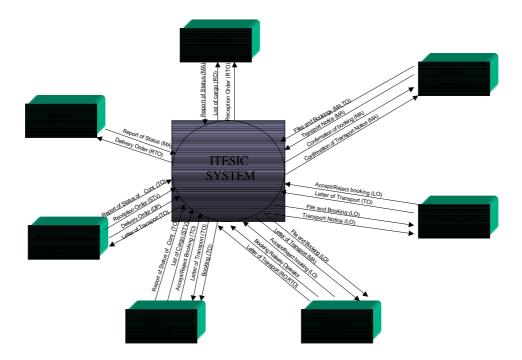
Nowadays, the flow of information between all the involved agents in an export or import process occur in a complex network where these agents have to send and receive large quantities of documentation by phone, fax, EDI, messenger and so on. This situation is supported by cumbersome document interchanges where it is very difficult to track the situation and status of the goods.





The ITESIC project, in order to achieve a simpler, more flexible and reliable system, has restructured the information flow into a centralized process using the Internet as a backbone to communicate all the agents present in the corridor, where all the involved agents interchange information with it and receive all the necessary information from it. As all this information is stored into the ITESIC system all the agents can track the situation and status of their documents and goods automatically. This approach sets the ITESIC system as the single point of contact between the clients, (logistic operators, importers/exporters), and the modal operators, (road and railway operators, shipping agents), acting such as an "umbrella", in order to move cargo in a door-to-door service.





This "umbrella" approach permits the replication of the ITESIC concept in any other corridor, because it eliminates the need of connecting disparate systems between themselves :No matter which systems are available in the corridor, they just have to be plugged into the ITESIC module via standard messages.

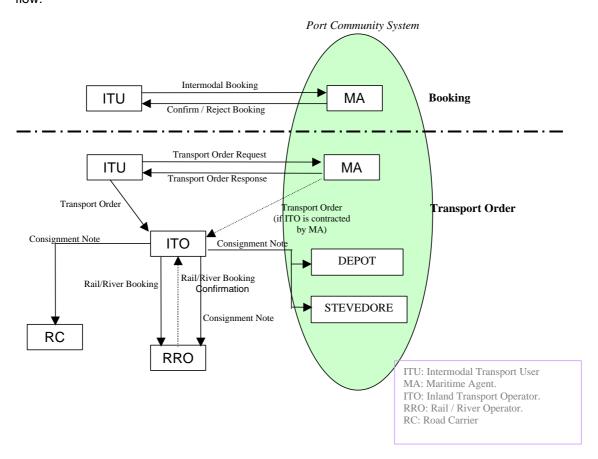
If there are no systems available to perform certain tasks in a given corridor, simple functionality could be added to the ITESIC main module in order to cover them.

The consortium understands that the above mentioned approach is a huge step ahead in the creation of a "universal" Intranet solution for intermodal corridors. Its feasibility was clearly proved during the ITESIC demonstration.



### 6.2 EXPORT BUSINESS CYCLE

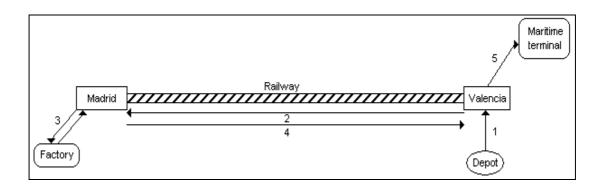
The ITESIC system supports all the necessary documentation in order to manage the whole intermodal transport chain in a export process. The following picture depicts the information flow:



- 1. The ITU creates a *Generic Intermodal Booking*, (GIB). This document contains a maritime booking (that it will be accepted or rejected by the maritime agent) and a preliminary Rail/River booking.
- 2. The MA confirms/rejects the booking. The RRO, in turn, can preview an advance list of bookings.
- 3. If the GIB has been confirmed by the MA, the ITU creates a *Generic Transport Order*, (GTO). This document contains generic information needed to carry a container and it is sent to the MA.
- 4. The maritime agent completes this document indicating the container number, the depot to pick from the container and the stevedore to take the container to. Additionally, it is sent to the selected ITO.
- 5. The ITO, creates a Rail/River Booking, (RRO), that is sent, in turn, to the RRO.



6. In addition, the ITO also creates Consignment Notes, (CN), that represent transport orders in a «segment» of the whole chain. For instance:



STEP 1	Road Transport 1 has to pick an empty container from Depot. He takes it to Rail Terminal.
STEP 2	Empty container is transported to Madrid.
STEP 3	Road Transport 2 goes to Factory, loads the goods into the container and takes it to the Rail Terminal.
STEP 4	Container is transported to Valencia.
STEP 5	Road Transport 3 takes the Container to the Maritime Terminal.

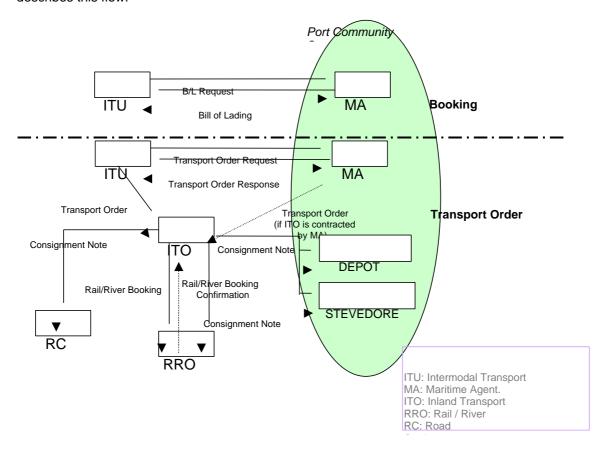
The consignment note can be addressed to road operators, rail/river operators, depots and stevedores.

7. Finally, the users can track the status of the documents and the location of the containers.



# 6.3 IMPORT BUSINESS CYCLE.

The ITESIC system also covers the information flow in an import process. The following picture describes this flow:



As it is shown in the figure, the information flow in the import process is very similar to export. Basically, the unique difference between them is the starting process:

- 1. In import, the ITU requests the Bill of Lading to the MA, giving some restricted information such as the B/L number and the exact quantity of packages or a container number.
- 2. When this B/L is available in the system, is automatically assigned to the corresponding ITU.
- 3. At this point of time, the ITU can continue the same process as an export:
  - ITU creates Transport Orders for ITO
  - ITO receives Transport Orders (One per container)
  - ITO sends Consignment Notes
  - Tracking



### 6.4 ARCHITECTURE.

Two distinct architectures have been defined for each corridor, one for the Export Process and another for the Import Process. The details of the architectures are summarized below:

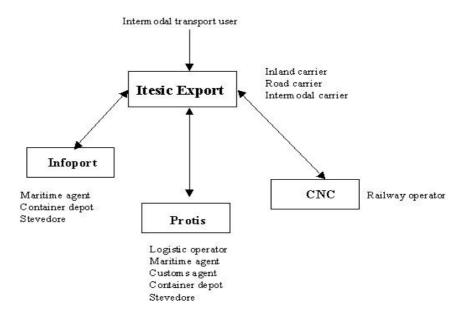
### **MARSEILLES-LYON CORRIDOR:**

# **Systems Already Present in the Corridor:**

- **PCS**: PCS is an information system focused on the maritime agent operations like the maritime booking and the equipment management with container depot attribution and stevedore terminal assignment.
- **Protis:** is a value added telecom system that allows port professionals, the Marseilles port authority and Customs to exchange data and messages confidentially and safely.
- **CNC Information system:** the Information system of the CNC allows the intermodal transport company to manage all the operations related to the shipment of goods through intermodal transport.

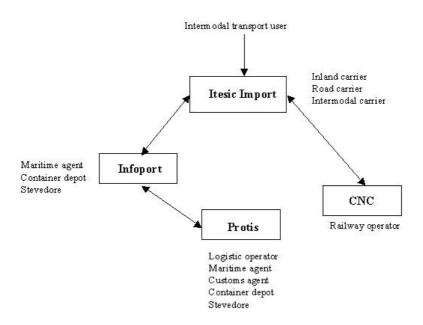
The integration work has a functional structure that is supported by a technical implementation; the figures that follow show both architectures for the Export and the Import processes:

### **Export:**





# Import:



# **VALENCIA-MADRID CORRIDOR:**

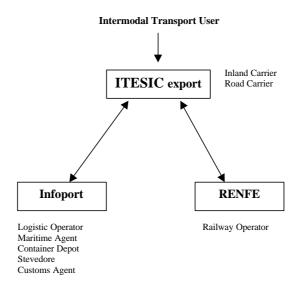
# Systems already present in the corridor:

- **PCS:** PCS is the community information system used in the port of Valencia by all the involved agents in export and import processes. With this system every agent can handle, manage and share his own documentation.
- Renfe Information system: the Information system of RENFE allows the railway transport operator to manage all the operation related to the shipment of containers.

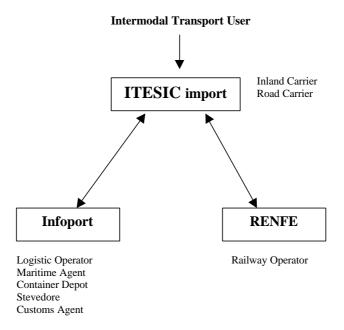


The figures that follow show both architectures for the Export and the Import processes:

# **Export:**



# Import:





# 7 CONCLUSION

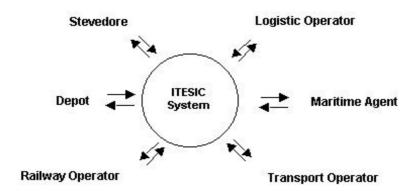
ITESIC main objective was to develop and demonstrate a one stop shop for intermodal freight transport in short and medium distance corridors capable of covering the requirements of the logistic planners and operators. This objective has been successfully achieved by:

- firstly, applying information technology and transport telematics and improving the services layers in both corridors.
- Secondly, by reengineering some processes in order to meet the requirements of the users.
- Thirdly, maintaining a unified user interface and using standards in order to facilitate the harmonization at a European level.

The most important achievement of the ITESIC project has been to consider the corridors as a unified transport system rather than a set of different transport services that are occasionally related to each other.

The proposed concept of ITESIC has been validated by the users, on one hand by comparing the ITESIC model with other models in a simulation environment, (by using the Virtual Intermodal Chain Simulator), and, on the other hand, developing two full-fledged demonstrators that have been tested by the users in a laboratory environment. The response from users has been extremely positive.

During the project, it has been demonstrated that the system is capable of creating an "umbrella" over intermodal corridors, becoming the single point of entry to all information required to manage the information flow associated with cargo within these corridors.





During the demonstration phase this approach has been tested by the users. The conclusions that can be extracted for that period are:

- 1. The system fills the gap between existing systems that today do not communicate to each other.
- 2. The whole intermodal chain is considered and it solves the problem of cargo that either comes from the sea to an inland destination or leaves the inland location to be transported by sea.
- 3. All the agents involved in the cargo operation can interact and communicate to each other.
- 4. Provides advance demand forecasting trough anticipated reservation.
- 5. The ITESIC system can be replicated in any other corridor, because it eliminates the need of connecting disparate systems between themselves.
- 6. In summary, the system works properly to support the business cycle within short and medium distance Intermodal corridors.

Due to the success in the demonstration phase, the consortium has also prepared a generalization and exploitation plan that describes the next steps that should be taken in order to exploit the results and implant the systems in both corridors in a real production environment. This plan also includes the extension of these results to other intermodal corridors in Europe.



# 7.1 APPENDIX TABLE

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Appendix 2: Status of ITESIC Deliverables	
Appendix 3: Dissemination Activities	
Appendix 4: Final Presentation of Itesic	



### **Appendix 1: Detailed Description of Partners**

### **EUROMAR**

The Coordinator Partner is EUROMAR. The EUROMAR European Economic Interest Group was formed on 6 February 1996 by representative Cargo Community System Operators of ports in the Mediterranean region, namely SET, associated with the Autorita' Portuale di Genova; GYPTIS, associated with the Port Autonome de Marseille; and PORTEL, associated with the Autoridad Portuaria de Valencia. The Port Authorities of Genoa, Marseilles, Valencia, Piraeus, Barcelona, and Lisbon are honorary members of EUROMAR. The Group was formed with the aim of consolidating the benefits of information technology and telematic applications for intermodal transport activity in the Mediterranean region. Specifically, they intend to build an open communications network that will promote interconnectivity and interoperability among CCS's and allow the creation of new services such as tracking and tracing and cargo route optimization, as well as produce reductions in cost and delivery time.

The individual profile of the EUROMAR EEIG members participating in the project are:

**PORTEL S.A.** is a company created at the end of 1995 that has started its operations in January 1996; its main aim is to promote the implementation of advanced technologies in all Spanish commercial ports, by coordinating the experiences already in progress in some of them and in general by modernizing the telematic infrastructures of all the ports.

In the spirit of modernization and technology update, the "Ente Publico Puertos del Estado" (Holding Corporation of all Spanish commercial ports) and the Spanish Post Office (Telefonica de Espagña S.A.) agreed on creating PORTEL taking respectively 51% and 49% of the capital.

PORTEL S.A. is created with a compromise of both its parent companies to invest 4.500.000.000 ptas (27.000.000 ECU's) each one in the next two years in telematics infrastructure for the Spanish Ports.

PORTEL activities can be summarized in three main lines:

- to provide logistic information services to Port communities;
- to provide support to port-related activities;
- to provide communication services among the different Port communities.
- Logistic Information Services:

Creation of a Port EDI clearing-house that will enhance the goods flow in all the Ports. To achieve that goal, agreements have been signed with the Spanish Customs and Health services.

PORTEL becomes the National Center for the communication of dangerous goods, in compliance with the HAZMAT directive.

PORTEL acts as the "single" window of Port related commercial activities, providing access to information related to the follow-up of goods as well as to external sources of information (such as Internet).

Provision of basic telematic services such as email, fax store and forward, etc.

Provision of support to port-related activities:

In order to do that PORTEL will speed up the creation of telematic service companies in the different



### Port Authorities.

These companies called "SERVIPORT-X" will offer the following services:

- Portuary communication: basic telephone and radio-telephone services;
- Portuary operation: support to the Cargo Community System (CCS), aids to ship's navigation;
- Security and emergency: alarm control, access control, open warehouse management.
- Interconnection of Portuary Communities

These services will basically aim at the management of a corporate network of voice, data and images that will be offered to the different port communities.

### **Port of Valencia**

The Port Authority of Valencia is the public enterprise responsible for the management and administration of three Ports situated on the western coast of the Spanish Mediterranean: Valencia, Candia and Sagunto. It has some 350 employees and its gross earnings in 1995 amounted to approximately 56 million ECU. In commercial terms the Port of Valencia is the most important in Spain.

- The capacity for concentrating cargo is conclusive: 55,8% of Spain's gross production comes from its structural hinterland which represents 48,6% of the population and 42,0% of the countries total extension.
- The volume of traffic overpass the 16 millions of tons of which over 64% is of general cargo. Moreover, containerized goods traffic reached 7,5 millions tons in 1995 (670000 TEU'S) and 90% of this figure corresponded to import/export traffic.
- More than 160 shipping lines link the Port of Valencia with more than 300 Ports in the five continents. The Port of Valencia has over 7000 meters berthing lines with depths ranging between 7 and 16 meters, 14 RO-RO berths and 36 cranes. The main specialized terminals
- The Public's Container Terminal
- The Cereal's Public Terminal
- The Multipurpose Terminal.
- About 51% of its traffic in 1995 was Short Sea Shipping concentrated primarily in the Mediterranean region.
- The Port of Valencia is highly automated with a LAN of more than 160 Personal Computers supported by AS/400, Unix and Windows NT servers. Applications include:
- Internal Management System
- Office System
- Executive Information System
- Documentary Info System
- Computer Aided Design (CAD)



The Port Authority has encouraged the creation of a Community System which allows all agents of the Port Community to communicate with each other.

The system (which supports cargo manifest, Customs clearance, dangerous good notification, booking, loading notification, etc.) is based on Edifact Standards and is currently being used by a vast majority of operators.

As an extension of the EDI system the Port Authority offers its clients on-line information related to Vessel Traffic Management, available lines and services, dangerous good management, statistics and dock personnel management.

The Port of Valencia plays an important leading role in the Valencian Port Community. In order to stimulate and upgrade the community, in 1991, the P.A.V. created and manages the Port Institute of Studies and Cooperation (IPEC) which serves trade by way of innovative human resources training programmes, research and technological developments as well as by cooperation and technological transmission on a national and international scale.

### Its activities include:

- Training: Management training in business administration, ports and transport (University Master and Advanced Courses); Specialized seminars in Modern Port Management, total Quality Management and EDI implementation in the transport chain.
- Research: Lines of work include: training needs in the Port and Shipping Industry; promotion and development of multimodal transport and Short Sea Shipping in Europe; development and implementation of EDI in ports.
- Cooperation: in European Union Programmes (DG7, COMETT, ERASMUS, PHARE, FORCE) and UNCTAD Programmes with activities mainly focused on countries in Latin America, the Mediterranean and Eastern Europe.

By way of the IPEC and its Information System department, the P.A.V. will contribute to the tasks assigned to it in this project. The former has a task force of eight highly qualified experts involved in carrying out activities with an ample team of external collaborators. The latter has ten expert technicians and teams specialized in the analysis, design and operations of information systems.

**GYPTIS** is an independent company, which has been created by the Port Community of Marseilles/Fos. Its capital is 5.4 Million French Francs, which are detained by professional associations of maritime enterprises. The turnover is about 15 Million French Francs.

GYPTIS is in charge of the exploitation of PROTIS, a port information system and an interconnectivity platform that links 300 companies in the field of transport. PROTIS is used in Marseilles, and has also been installed for the Port Community of Dunkirk.

GYPTIS also performs training activities for personnel in the area of transport logistics.

Description of the other Partners:

# **RENFE and CNC:**

Are intermodal transport operators that manage terminals, railway systems and road trucks. They will supply the project with their experience as users, their information technology and their proven, hands



on expertise dealing with day to day problems and final users.

They intend to transfer the results of this project to their national network and will consider the feasibility of creating combined services between France and Spain.

# Puertos del Estado:

It is the government institute that owns and operates all the Spanish ports, their contribution will be key to guarantee a rapid transferability of the results and in dealing with the Customs authorities (They already have an agreement with the customs to clear imports and exports via EDI, the system is fully implemented and running in most Spanish ports. This system is operated by PORTEL, a Euromar member and the idea is to extend it to Intermodal transport.

### **CNR-Port Edouard Herriot:**

Port Edouart Herriot, the dry port of Lyon, is a local settlement of the CNR (Compagnie Nationale du Rhône) the public body in charge of exploiting the Rhône river.

The port Edouard Herriot represents two terminals:

- > a waterway to road terminal with a barge shuttle (Deltabox) twice a week for Marseilles
- ➤ a rail to road terminal with the « Med Shuttle » a rail shuttle linking three times a week Lyon to Marseilles. This service began in June 97 and in its six first months realized a traffic of 8500 TEUs (72% of train capacity) what represented 148 trains at a rythm of 23 and 26 trains per months.

The port Edouard Herriot in Lyon is the natural dry port of Marseilles and the transport communities of both towns intends to strengthen their cooperation by enhancing innovative services to compete with road which is dominant on this trade.

### **CONSULTRANS:**

CONSULTRANS is a consultancy firm established in Madrid on 2nd December 1985 with the following objectives: "work on studies, reports and opinions about legal, economic, technical and tax issues and public relations. Furthermore, the firm is qualified for the preparation of all kinds of legal projects and computer programmes".

Since it was set up, CONSULTRANS has carried out many studies for institutions and companies, as well as for the UE and other European countries, the bulk of its work being for the Public Administration, central government and local authorities. Over the ten years of its existence it has already made over one hundred projects on transport-related matters, being CONSULTRANS a very experienced firm in the field.

Some of the most important projects carried out by CONSULTRANS have involved the preparation of practical, highly technical and scientific studies, always with the aim of providing the clients with the best information they require.

In 1994 CONSULTRANS opened up a regional office in Seville to meet the demand in that part of Spain. Furthermore, CONSULTRANS also works with specialised engineers and economics from all over the world in order to meet the needs of every project.



Furthermore, the President of Consultrans, S.A. has participated on:

- Group of Expert for DGVII five year evaluation panel.
- Group of Expert for Green Paper on Ports (1997).

### Subcontractors:

### **Innovation Strategies SL**

It is a highly specialized consultancy company that helps its clients to achieve business and technological development by applying Information Technology and acting as a facilitator of change.

Our core expertise is best applied in a complex / international environment where different technologies have to be integrated in order to support a business goal.

- We provide services that include:
- Identifying development opportunities.
- Assembling and managing multidisciplinary working teams.
- Integration of technologies.
- Electronic Commerce.
- Preparing call for tenders, looking for financial alternatives and setting-up contracts.
- Supporting the whole life cycle of the projects, from managing them for on-time deliveries, to providing strategic planning support as the projects evolve.

Major Engagements of the past 24 months:

Client: Euromar EEIG (Ports of Valencia-Marseilles and Genoa) + Port of Lisbon, Piraeus and others.

**Project:** Development of the Information Network Connecting the Maritime ports of the Mediterranean and establishing the Electronic Commerce infrastructure for the maritime transport in the area

Client: Spanish Federation of Savings Banks (CECA) + 20 Savings Banks

**Project:** Development of the strategy to manage global changes to a complete software portfolio (applied to the EURO and Year 2000 problems)

Client: Profit, Parsytec, Xerox, OHRA (NL-Insurance company), Athens Stock Exchange, BBV (Spanish second largest bank) and others

**Project:** Development of a Document Routing system based on High Performance Computers and specialized grammar parsers.

**Client:** 75 small producers of European Gourmet Products

**Project:** Development of The European Electronic delicatessen Wholesaler and reengineering the commercialization of the business cycle for European gourmet products.

Client: The European Commission

**Project:** Evaluators of the ESPRIT program, reviewers of ESPRIT projects, members of the High Performance Computing and Networking Industrial Advisory Panel, Assessors of the G7 testbeds for Electronic Commerce (Project launched by the Group of the seven more Industrialized countries)



# **CNC**

For close to half a century CNC Transports has been developing its expertise of intermodal transportation both in France and throughout Europe. This development took place while respecting the environment and the various European and national laws and regulations. CNC Transports offers three kinds of services:

- NAVILAND EUROPEAN SERVICES is geared towards the steamship lines market offering door-to-door transportation and delivery of maritime containers along with logistical services to and from the major European ports.
- CONTINENTAL EUROPEAN SERVICES is designed to offer to manufactures and to shippers
  of truck loads door-to-door pan-European intermodal services including the provision CNC
  owned equipment such as containers and swap-bodies.
- CUSTOM TAILORED SERVICES are put together to serve specific market niches not addressed by the above services.



European Commission - DGVII ITESIC Project

COMPANY	TITLE	NAME	ADDRESS 1	ADDRESS 2	POSTAL CODE	CITY	CTRY	TEL/FAX	E- MAIL
GYPTIS	Mr	LACOMBE Didier		20, quai du Lazaret	13002	MARSEILL E	France	33.4.91.14.26.60 33.4.91.56.80.45	
PORTEL	Mr	Fernando MELLE FERNANDEZ	A.V.D.A. Del Partenon 10-5	Campo de las Naciones	28042	MADRID	Spain	<b>☎</b> 349 1.721.45.10 Sec. : Loya <b>ଛ</b> 349 1.721.05.65	
PORTEL	Mr.	VIDAL Jose Francisco	A.V.D.A. Del Partenon 10-5	Campo de las Naciones	28042	MADRID	SPAIN		
AUTORIDAD PORTUARIA DE VALENCIA/ EUROMAR	Mr.	SANCHEZ Francesc	Muelle de la Aduana, s/n		46024	VALENCIA	SPAIN		
C.N.R. (Cie Nationale du Rhône)	Mr	Mathieu DUVAL	2 rue André Bonin		69316	LYON CEDEX 04	France	<b>2</b> 04 78 61 65 78 Sec: 61 65 71 <b>2</b> 04 78 72 09 65	
C.N.R. (Cie Nationale du Rhône)	Mr	L. NATIVELLE	2 rue André Bonin		69316	LYON CEDEX 04	France	<b>☎</b> 04 72 80 16 72 Sec. : 61 65 71 <b>ଛ</b> 04 72 73 41 62	lyon.termi nal@wan adoo.fr
RENFE	Mr	Carlos DIAZ Delgado	Estación Madrid- Chamartín C/Agustín de Foxá s/n		28036	MADRID	SPAIN	<b>☎</b> 34 91 733 16 20 <b>ଛ</b> 34 91 323 29 50	
PUERTOS DEL ESTADO	Mr	Ignacio MARINAS	A.V.D.A. Del Partenon 10-5	Campo de las Naciones	28042	MADRID	SPAIN		
CONSULTRANS	Mr	Jorge HERNANDO	Serrano 6 2°, 2ª		28001	MADRID	SPAIN	<b>☎</b> 34 915771916 <b>ଛ</b> 34 915757117	
CNC TRANSPORTS	Mr	Bernard JOSSELIN		8, ave des Minimes BP 57	94302	VINCENNE S CEDEX	France	<b>☎</b> 01 43 98 40 00	Bjosselin @cnc.tran sports.co m



European Commission - DGVII ITESIC Project

CNC (C	ie Mme	Gisèle	Département	8, ave des Minimes	94302	VINCENNE	France	<b>2</b> 01 43 98 40 00	dsi@cnc-
Nouvelle de	es	QUANTIN-	Systèmes	BP 57		S CEDEX		₫ 01 43 98 97 18	transports
Conteneurs)		FARNAUD	d'Information						<u>.com</u>
CNC	Mr	CATALIN	35 bd Capitaine	BP 309	13309	MARSEILL	France	<b>2</b> 04 91 10 15 03	
			Gèze			E CEDEX 14		■ 04 91 02 25 40	
INNOVATION	Mr	Miguel		Paseo Maritimo 39,	07014	PALMA DE	Spain	<b>2</b> 349 71 76 40 53	
STRATEGIES		FERNANDEZ		2A		MALLORC		<b>349 71 75 95 93</b>	
						A			



European Commission - DGVII ITESIC Project

#### **Appendix 2: ITESIC Deliverables**

Deliverable	Reference
D1 Reengineered process for both corridors and system design	D1
D2 Integrated Demonstration Systems for each corridor	D2
D3 Consolidated Demonstrators for each corridor and Evaluation Reports	D3
D4 Analysis of results and generalization plans	D4
D5 Exploitation and Dissemination materials	D5
D6 Project Control File	D6

The ITESIC project has been a demonstration project where different existing commercial systems have been integrated into a single, reengineered procedure using the internet as a backbone. Most of the deliverables contain information regarding those commercial systems and therefore had been classified as restricted. Nevertheless the consortium is totally open to discuss the details of the project with other research organizations interested in building on the results achieved during this project.



#### **Appendix 3: Dissemination Activities**

Activity	Location
Meetings with professional associations: AACN, AOTM, UMF	Marseilles
Meeting with the National French Administration steering committee	Paris
Meetings with National Administration bodies: Ministry of Transport, Customs Authorities, Railway Authorities, Puertos del Estado and regional governments of Madrid and Valencia	Spain
Presentation in ACTIF (Architecture Cadre des Transports Intelligents en France) sessions	France
Meetings with key actors in both corridors	France, Spain
ITESIC Information Web Site	-
2 Newsletters issued	France, Spain
Several press releases published in: "Diario del Puerto", "Comercio Exterior", "L'Antenne"	France, Spain
2 final workshops in each corridor	France, Spain



Appendix 4: Final Presentation of Itesic.



### European Commission DGVII - ITESIC

# **EUROMAR**

**European Economic Interest Group** 

# The ITESIC Project

"Integration of Technologies for European Short Intermodal Corridors"

© Euromar EEIG



# European Commission DGVII - ITESIC The basis for the project

- ✓ ITESIC was presented for the call for proposals organised jointly by the RTD Programmes for Transport and Telematics Applications. This joint call for proposals intended to further strengthen the synergy between two intimately linked sectors, namely transport and telematics.
- ✓ ITESIC addressed Task 1 of the Joint Call on Transport Intermodality:

"Integrated Demonstration project of Innovative Intermodal Door to Door freight services on short and medium distances".





# European Commission DGVII - ITESIC The Partnership

- Euromar EEIG (Coordinator)
- RENFE
- Consultrans (Transport Consultancy)
- Puertos del Estado
- Puerto de Valencia
- Companie Nationale du Rhone (Lyon Terminal)

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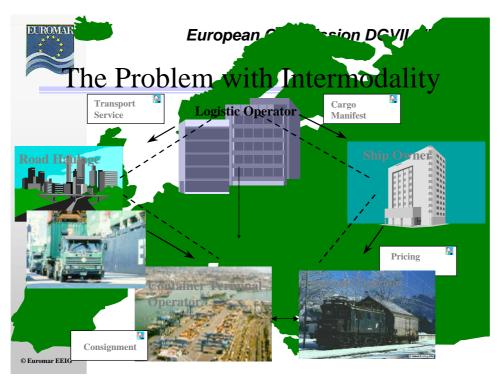


### European Commission DGVII - ITESIC

# ITESIC Objective:

 ITESIC developed and demonstrated a one-stop shop for intermodal freight within short and medium distance corridors. The project integrated the current "modaloriented" information systems available in two corridors: Madrid-Valencia and Marseilles-Lyon so users of transport services may work seamlessly within them operating as integrated door-to-door services covering the sea-leg, railways and inland-waterways services and road transport.











Overview of the Project

01-Jan-99 30-Apr-99 03-May-99 30-Oct-99 0

30-Jun-00

#### •WP1:

- Model Corridors
- Reengineer Behavior
- Simulate Results
- •Obtain Approval from Users
- Design Final Demonstrator

#### •WP2:

- Integrate Existing
- Systems.
- •Build Integration
- Components

#### •WP3 and WP4:

- Deploy Demonstrators
- Carry out Demonstration
- Evaluate Results
- •Benchmarking

•WP 5: Exploitation and Dissemination

•WP 6 Project Management

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#### European Commission DGVII - ITESIC

# The Simulation:

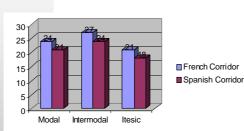
- Data Gathering Questionnaires and Guidelines
- All relevant players in both corridors interviewed (including SME representatives).
- Simulation Carried out using the Virtual Transport Chain Simulator (developed for the MARTRANS initiative)
- User Expectations VERY high
- Encouraging simulation results





# European Commission DGVII - ITESIC Summary of Simulation Results (I)

### Number of Process



The ITESIC solution decreases significatively the number of tasks for intermodal transport

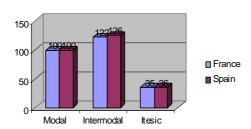
© Euromar EEIG

- Gain in comparison with the modal corridor:
  - 11% France
  - 14% Spain
- Gain in comparison with the intermodal corridor:
  - 22% France
  - 25% Spain



# European Commission DGVII - ITESIC Summary of Simulation Results (II)

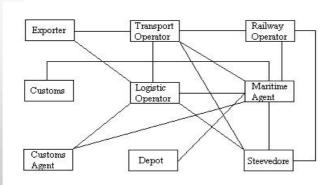
#### • Process Costs



The reduced number of process supported by new information technology makes the intermodal transport more profitable than the modal one



# Demonstrators-Current Situation

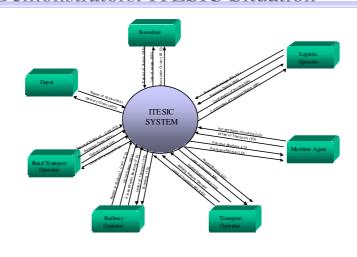


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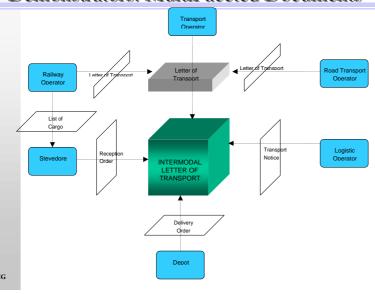
### European Commission DGVII - ITESIC

# **Demonstrators: ITESIC Situation**





# Demonstrators: MultiFaceted Documents



### European Commission DGVII - ITESIC

# Main Characteristics of the Demonstrators

- 3 Information Cycles Covered for Exports:
  - Intermodal Booking
  - Transport Order
  - Tracking
- 2 Information Cycles Covered for Imports
  - Transport Order
  - Tracking



## Main Characteristics of the Demonstrators

- **Intermodal booking:**\_\_this function enables the intermodal transport user to book simultaneously a transport space on maritime transport and on inland transport.
- **Intermodal transport order:** this function enables an intermodal transport service user to give his instructions for transport operations simultaneously to the road operator and the inland carrier.
- **Tracking:** this function enables the user to follow the status of his shipment from the container depot to the stevedore terminal.

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#### European Commission DGVII - ITESIC

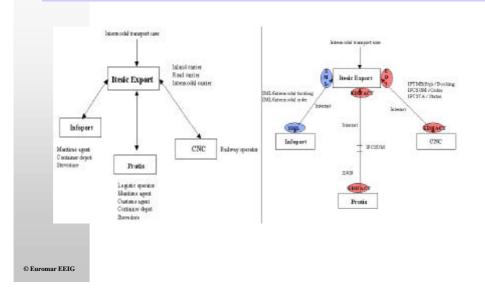
# Demonstration: Marseilles - Lyon Corridor

# Existing systems

- **Infoport:** Infoport is an information system focused on the maritime agent operations like the maritime booking and the equipment management with container depot attribution and stevedore terminal assignment.
- **Protis:** Protis is a vaule added telecom system that allows port professionals, the Marseille port authority and Customs to exchange data and messages confidentially and safely.
- CNC Information system: the Information system of the CNC allows the intermodal transport company to manage all the operations related to the shipment of goods through intermodal transport.

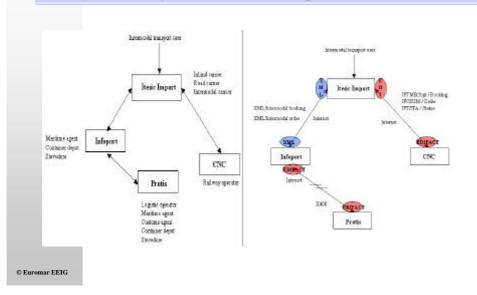


# Marseilles - Lyon Corridor - Export Architecture



### European Commission DGVII - ITESIC

# Marseilles - Lyon Corridor - Import Architecture





## Demonstration: Valencia-Madrid Corridor

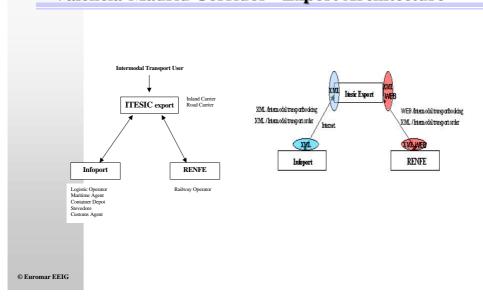
## Existing systems

- **Infoport:** Infoport is the community system information used in port of Valencia by all the involved agents in export and import processes. With this system every agent can handle, manage and share his own documentation.
- **Renfe Information system:** the Information system of RENFE allows the railway transport operator to manage all the operation related to the shipment of goods.

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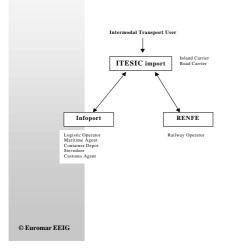
### European Commission DGVII - ITESIC

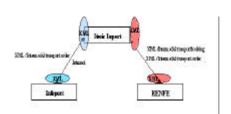
### Valencia-Madrid Corridor - Export Architecture





# Valencia-Madrid Corridor - Import Architecture







# European Commission DGVII - ITESIC Testing Scenario - Spain

- Intermodal Transport Users (ITU):
  - Logitrans Express
- Inland Transport operators (ITO):
  - Transporte Combinado Renfe
  - Spain Rail
- Rail Operators (RRO):
  - Transporte Combinado Renfe
- Maritime Agents (MA):
  - Isamar
  - Mediterranean Shipping CO. S.A.





# European Commission DGVII - ITESIC Testing Scenario -France

- Intermodal Transport Users (ITU):
  - Giocanti
- Inland Transport Operators (ITO):
  - CNC, Deltabox
- Rail Operators (**RRO**):
  - CNC, Deltabox
- *Maritime Agents* (*MA*):
  - Balport, MSC, Mitsui OSK line
- Container Depot (CD):
  - Lyon Terminal

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# European Commission DGVII - ITESIC Summary of Results

- Users Basically Said:
  - Implement it.
  - Simplify it (it was too complex and sometimes too rigid)
  - This is the right way to go
- The Customs wants to be involved
- Legal issues should be sorted out when dealing with the Rail Operators. (Inland Transport Operators can fulfill the problem)





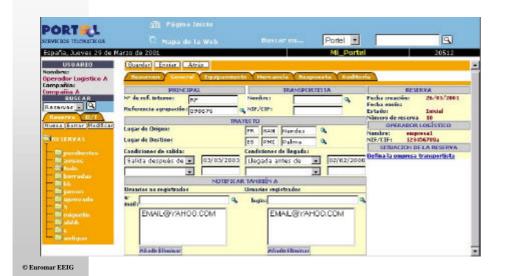
# **Exploitation - Spain**

- Various Features Integrated into the Valencia Port Community System
- Development of a "Light" Port Community System to support ITESIC in other ports and Rail Destinations.
- Integration with the "Dry Port" in Madrid
- Extension of the concept to cover Air Transport
- Inclusion of ITESIC within Portel's Portal

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# European Commission DGVII - ITESIC ITESIC in Portel







# European Commission DGVII - ITESIC Exploitation - France

- ITESIC Integrated into PROTISNET
- Extension to other Inland destinations (Tolouse, Dijon)
- Likely extension to Le Havre (being negotiated)

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# European Commission DGVII - ITESIC ProtisNet







# European Commission DGVII - ITESIC European Exploitation

- Inclusion into IP
- Extension to Small/Non automated Ports via the "Portal" concept.
- Dissemination of the connectivity guide to include automated Ports.
- First Trials to be proposed to the Port of Lisbon within a cooperation of the Portuguese Transport Portal and the Madrid "Dry" Port.