

# Increasing Harbour Efficiency and Security: the SESTANTE Interreg III B Project

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*Abstract* – SESTANTE is an INTERREG III B MEDOCC (Western Mediterranean area) project started on January 2003 and ending on June 2004. In particular it is included in the axe 3 (Transport systems and information society), measure 3.4 (Innovative communication and information technologies for the development of the territory).

The aim of the project is to enhance the economic competitiveness of the ports, interports, airports, in the MEDOCC area improving the quality of the service, reducing times and costs of freights delivery and above all establishing a communication network between all single components of the intermodal chain in order to simplify the operational interactions and the document exchange processes.

The general objective of SESTANTE Project is to identify and analyse information and document flows that are critical in the intermodal logistic chain in order to allow the development and application of information and communication technologies (ICT) to support the creation of integrated transport systems.

Moreover particular attention will be directed to the aspect of dangerous goods transport and of security of the accesses in the ports, which is a relevant theme now that the USA fixed rigid rules for Authorities and Terminal Operators.

## 1. The Interreg III B Programme

Interreg III is the initiative of the European Community for the period 2000 – 2006, financed by the FEDER (Fond Européen de Développement Régional).

The MEDOCC programme is included in the Interreg programme (in particular in the section of cooperation among countries) and it allows the realization of projects that aim to a lasting, harmonious, and balanced development and to a better territorial integration within the western Mediterranean area, that includes regions of the south of Spain, of France, of Italy and of Portugal.

The global objectives of the programme are: to increase the territorial competitiveness of the MEDOCC area in order to make it a relevant area of economic integration; make the policy for the territorial development more coherent within the cooperation area through a wider institutional integration; encouraging richer and larger international co-operations.

In particular SESTANTE within the Interreg programme faces the axe 3 that aims to encourage the constitution of an integrated system of transport for increasing competitiveness and the economic, social and territorial cohesion of the area. SESTANTE project satisfies also the specific objectives of measure 3.4, in particular: promoting the use of telematic instruments on the transport field and encouraging the telecommunications operators to give more importance to the aspect of the territorial development in their investment policy.

## **2. Introduction**

SESTANTE (Telematic Instrument for the security and efficiency of the information flow of port and interport logistic chain) is an Interreg IIIB Medocc (Western Mediterranean Area) project started on January 2003 and ending on June 2004.

The SESTANTE project Consortium includes 7 partners from 2 European countries. The consortium includes several Ports (the Port of Livorno, Gioia Tauro, Valencia, Genova) and Interports (in Campania Region and Toscana Region). The Emilia Romagna Region participates to the project bringing about all the experience they have acquired through the GILDA project (initiated under the Interreg II C CADSES Programme) and assuring the link and integration with the parallel project GILDANET, that is the continuation of GILDA project and the equivalent of SESTANTE for the CADSES Area (Central European, Adriatic, Danubian, South- Eastern Space). Also the Universitat Politecnica de Catalunya is involved in the project and contributes with its experience in the impacts simulation and evaluation activities.

Toscana Region, besides developing activities in the Livorno demonstration site, is the project leader and it is in charge of the general management of the project.

SESTANTE project consists of these 6 macro activities:

- Users requirements analysis and definition.
- Definition of protocols and telematic standards to allow the communication and the data interchange.
- Applications development.
- Demonstration in three different sites (Livorno, Gioia Tauro and Valencia) of the use of the defined ICT instruments.
- Best practices and business case definition: in order to enlarge the use of these instruments by the operators.
- Promotion and diffusion of activities and results both at national and at European level.

## **3. The general context and SESTANTE approach**

In the multimodal freight transport chain a multitude of subjects with specific roles are involved.

In particular in the port/airport/interport work environment this people can be divided into 2 groups:

- Operational subjects, that are directly involved in the management of the freight movement process
- Institutional subjects, that supervise the operations carrying out a legal and institutional control.

The increasing competition in the field of freight transport pushed the operators to achieve higher level of productivity and efficiency in the service management.

It is acknowledged that the information integration between the important stages of the logistic process is very useful and requested by the operators.

The operational context and the division of responsibilities imply a continuous information transfer and exchange in the form of data and documents both within the logistic chain and with external bodies. For this reason rapid, widespread, adaptable channels of communication are essential.

SESTANTE through its activities aims to solve the problems of rationalization of the information flow among the different participants to the logistic process and of improvement of the document flow above all between operational and institutional actors.

The main factor for achieving this purpose is the use of efficient communication network through which it's possible to interface different actors and users of the logistic cycle in a well defined and standard way (type of documents and type of exchanges).

SESTANTE fit in the set of actions indicated by the EU in the White Book for the promotion and development of intermodality in the transport policy; this because it aims at definition, realization and demonstration of specific activities of technological, procedural and normative kind that assure efficient and simple services to the freight traffic and an improvement of the operational and procedural dialogue between ports, interports and airports.

SESTANTE pursues the different initiatives foreseen in Interreg intending also to define information flows and to realize interfaces among systems of different subjects involved in the security sector (Institutional bodies like harbour office, Port Authorities, Ministry and other shipping operators) in order to help the exchange of electronic data and documents concerning security.

In this context SESTANTE contributes to the improvement of the overall logistic and multimodal chain of freight transport, applying an approach of cooperation and partnership at two different levels:

- Strategic level (horizontal): facing the key role and impacts of the use of ICT instruments for the information and document exchange with standard protocol and evaluating the effects on the whole competitiveness of the area.
- Vertical level: it evaluates the impacts of ICT instruments on users/operators/authorities and the productive and economic aspects.

So the project will face the following aspects:

- Technical/Operational: introducing an open and integrated network between the operators of the logistic chain and of the intermodal freight transport and other institutional subjects not interested in the goods movements.
- Administrative/Documental: developing procedures of message/document exchange through standard technologies and an accessible and interactive gateway that will allow the standardization of administrative/documental/formal procedures in the dialogue with Public Authorities involved in the logistic chain.
- Organizational: definition of a suitable organizational structure that, together with processes, will ensure the efficient working of the solutions found and validated.

#### **4. SESTANTE Objectives**

The general objectives of the project are:

- The definition of the needs of information exchange among the different operators of the port/airport/interport logistic chain;
- The definition of communication standards and protocols;
- The development of applications for the dialogue among different systems and different involved actors (both operational and institutional), with particular attention to services and useful information for the improvement of competitiveness of firms of the chain.

The critical points of the information flows and of the administrative processes that are produced in the relationship between public/institutional bodies (Customs, harbour office, Port Authority, Tax Officer) and private operators of the integrated logistic chain will be identified and analysed.

The result of the project will lead to the application of innovative IC technologies for the management and control of the information and document exchange between the different operators of the logistic chain in order to reduce the administrative delays and increase the economic competitiveness.

In three different sites (in Toscana, Calabria and Valencia) the ICT instruments realized will be developed (according with the characteristic of the site) and activated and their impacts on the whole logistic process in terms of economy and user acceptance will be evaluated.

The widespread adoption of ICT and of protocols and procedures for information exchange defined in SESTANTE will allow the MEDOCC area to reach a greater cohesion and integration both in the social/economic and institutional/organizational field. Moreover the greater availability and diffusion of information among operators will lead to the optimisation and rationalization of resources engaged with consequent economic benefits.

#### **5. Opportunities and Innovative Aspects in SESTANTE Project**

The main points of strength and opportunities offered by SESTANTE are:

- Big interest of operators of the logistic chain to reduce costs of freight transport through the improvement of systems of data transmission.
- Need of the operators to integrate parts of their information systems.
- Strong development possibility for ICT in the field of goods transport.
- Need of the operators of telematic communication sector to enter new fields with their activity.
- General demand of greater control and security in the freight transport.

Moreover, the presence of partners of different countries allow a comparison between existing regulations (above all concerning security) and the involvement of the interports in the project gives a global vision of the different means of transport (sea and land transport) and thus a complete analysis of the multimodality of goods transport.

The willing to develop cooperation aspects and coordinate actions in spite of the barriers existing in the port/airport/interport sector where normally operators act following a competitive logic is an innovative aspect. Besides the definition of a common strategy, the

harmonization of methodologies and instruments ensure a high level of transferability of results at European level.

## **6. Current SESTANTE status**

The domains of intervention for SESTANTE activities have been identified in order to solve problems and difficulties that are common for all the ports involved. SESTANTE focuses on these themes: dangerous goods information management and authorization (harmonization with the EU directive and with other European initiatives); cargo manifest (development of common procedures for the ports involved in the project); development of instruments for interoperability (web site, interfaces and standards).

At present we are working in the first phase of users requirements analysis and definition. For this purpose a questionnaire to be submitted to the private/public subjects that act in the domains mentioned above has been elaborated in order to collect information about the present documents flows and interchanges and the technological instruments in use.

In next months we will work on the protocols and standards definition and on the applications in the demonstration sites.

## **7. References**

- [1] Fiche projet, SESTANTE Interreg III B project, n° 2002-02-3.4-I-032.
- [2] Proceedings of the SESTANTE kick off meeting, February 13-14, 2003 – Florence, Italy.
- [3] GILDANET Interreg IIIB CADSES project.