PROJECT

GIFTS

Global Intermodal Freight Transport System

Funding: European (5th RTD Framework Programme)
Duration: Apr 2002 - Mar 2005
Status: Complete with results

Background & policy context:

The growth of freight transport shows a strong trend for the short and medium term that cannot be met by existing infrastructures and management tools. Most freight transport is road-based and causes considerable social and environmental impacts.

Intermodal transport could represent a sustainable solution for freight transport across Europe, but lack of flexibility and a number of bottlenecks in the intermodal chain, mainly the terminals, limit its ability to compete against road-only, especially for short and medium distances. Improvements of operations within the supply chain and intermodal terminals are made possible by means of telematics. Advances in technology are able to allow both the completion of transport services supply (product and service innovation) and the practice of transport services more efficiently and cheaply (process innovation).

A new freight transport concept is closely linked to the use of telematics for the management of deliveries and in the intensive use of automated and computerised means for treatment, sorting, storage and picking of freight.

In this framework the European Commission Information Society Technology (IST) Programme has co-funded a project called GIFTS (Global Intermodal Freight Transport System) to design, develop and test a freight intermodal transport information platform capable of exchanging all kinds of necessary information by all possible telecommunication means between all possible actors in the transport chain.

Objectives:

The main GIFTS aim was to design and develop, for the pilot cases, a fully-integrated operational platform, referred to in this document as the GIFTS Integrated operational Platform – GIP for the use of systems that manage door-to-door freight transport both intermodally and unimodally.

To use a more common terminology in freight transport today, GIFTS aimed to provide the blueprint of a system that would provide an integrated service to freight transport operation that would be particularly accessible to the small and medium ‘players’ in the field. GIFTS provides applications for the operational (e.g. track, trace and monitoring of the door-to-door journey; aid in trip management; tracking and tracing of goods; fleet management, etc.), as well as all the e-commerce functions and insurance of a door-to-door freight transport chain (i.e. including order matching, e-document transfer, e-payment, etc.).

The GIP has its own administrative functions based on a CORBA platform for registration, secured access, customer profiling, etc.. The use of the GIP will be mode independent (i.e. it is applicable to both unimodal as well as multimodal transport applications).

Methodology:

GIFTS is a unique proposition, best described as an open access Internet portal/e-marketplace, providing a comprehensive range of integrated services for the door-to-door management of intermodal freight transportation to be provided to the transport and logistics industry and all other entities closely associated with the supply chain.

GIFTS provides a neutral distributed IT environment for services-orientated applications able to
integrate different stand-alone services which, when combined together, can solve more complex business processes. GIFTS also delivers integration of the physical transport asset into the IT environment by means of advanced mobile terminal equipment.

The ultimate vision for the GIFTS platform is that the services provided as part of the platform or to which the platform provides access will be used in whole or part by operators in the freight transport industry and that a business opportunity could be derived from it.

The consortium’s research and the successful results of the trials have identified a specific profile of benefits in the road and rail sectors which mitigates towards these sectors becoming the initial target market for

**Related Projects:**
- MOSCA
- SPIN

**Parent Programmes:**
[FP5-IST KA1 - Systems and services for the citizens](#)

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- Telespazio Spa (I)
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- Dipartimento di Idraulica, Trasporti, Strade (I)
- PTV Planung Transport Verkehr AG (D)
- Proodos SA (GR)

**Organisation:** Telespazio

**Address:** via Tiburtina 965

**Zipcode:** 00156

**City:** Rome

**Contact country:** Italy

**Telephone:** +39 06 4079 3783

**Fax Number:** +39 06 4099 9318

**Key Results:**

The GIFTS project has developed an open access Internet portal/e-marketplace providing services to the logistics and freight transport industry in the European Union. The project has implemented a web platform of services that is fully interoperable and integrated with any ICT system. It has been tested by means of a demonstrator platform, used in three different pilot scenarios.

The results from the technical evaluation were very positive for the GIFTS system since they indicate:

a) that the GIFTS system meets all the technical requirements and the expected objectives set at the beginning of the projects; and

b) that the GIFTS system indeed merited the further assessment done (impact assessment, socioeconomic evaluation etc.).

Another positive result from the evaluation and validation process, was that in 'User Acceptance Analysis' both pilots achieved the highest possible score, which indicated a level of 100% success as it concerned user acceptance of the system. Therefore, users’ attitudes to and perception of the GIFTS application were very positive. Subsequent market and commercial assessment have given encouraging indication about the appreciation of the adopted technical and architectural solutions as well as about
operational benefits for the target users:

1. Small and Medium-Sized Enterprises can improve

**Policy implications**

The transport and logistics industry is still largely dependent on paper and fax transmissions and it is not difficult to identify potential savings resulting from more integrated IT systems. Many large manufacturers/shippers have already benefited from increased productivity due to IT improvements in their supply chain. If these were extended to all trading parties – small shippers, forwarders, land and sea carriers, customs authorities, port and terminal operators – the savings could be significant.

While many in the industry claim that transforming the paper-based chain to an electronic one would be prohibitively expensive, continued decreases in the cost of IT computing equipment and increasing computer literacy worldwide might make such a change feasible sooner rather than later. Users within this industry, particularly Small and Medium-Sized Enterprises (SMEs), are loath to invest in resources, technologies or software that could be superseded and become obsolete within a very short space of time. It was to overcome this reluctance and to respond to the significant opportunity to enhance international trade that GIFTS was formed.

GIFTS will offer an efficient new way for matching buyers and suppliers, enabling effective communication between those parties. In particular, the reduced costs of searching for potential business partners will lead to more efficient markets.

GIFTS aims to provide a comprehensive catalogue of services to the transport and logistics industry, while also addressing the needs of the administrative, managerial and physical movement and storage activities associated with this sector. A typical intermodal door-to-door journey using a shipping container can involve the interaction of approximately 25 different actors, generate 30 – 40 documents.

**Documents:**
- GIFTS Final Report (Final report)

**STRIA Roadmaps:** Network and traffic management systems

**Transport mode:** Multimodal transport

**Transport sectors:** Freight transport

**Geo-spatial type:** Other