TRANSit Project provides a flexible response to the changing supply chain management requirements in markets and distribution systems. The ICT integration permits the optimization of trade-offs between the components of supply chains as well as between the service and cost aspects of the modes within them. Transport operators, supply chain actors and all local and other authorities related to this field in MED area must respond and compete in the global marketplace and therefore the e-platform that the project proposes, will lead to successful execution & high efficiency of intermodal freight transportation both domestically & internationally.

The web tool was tested in a series of real-life scenarios in order to evaluate its performance. Below are presented some data about this two tests and the benefits obtained in them.

- Test A: Trip planning and execution with/without platform use.
  - Administrative cost reduces 76%.
  - Time decreases 63%.
- Test B: Combined transport vs. current method of transport.
  - Administrative cost reduces 20%.
  - Time decreases 25%.

Road freight transport in EU countries will increase the following decades. Apparently, gas emissions from transport evolution will increase accordingly. It is thus crucial to use efficiently all modes of transport by promoting co-modality.

A large number of actors in the transport chain characterizes intermodal transport. Those characteristics made intermodal cargo movement a complex task, as several players have to cooperate in order to plan and execute freight transports. In addition, the existence of poor infrastructure in conjunction with the lack of integrated information systems increased the problems faced by transport players.

ICT and especially web-based services and cloud computing will play a pivotal role for effective utilization of combined transport. TRANSit project includes the development of an e-platform, which facilitates and upgrades the exchange of information among the relevant transport operators in the basis of a strong intermodal transport network.

The web tool functionalities focus on planning activities and were based on the results of a survey conducted among freight operators concerning preferred web services. Specifically, web tool identifies possible options by using the hub-and-spoke model and a k-shortest path algorithm. In the shortest path computations, the “generalized cost” and “generalized time” are used. In that way, the options provided are sorted according to the user’s preferences.
The transportation network used in the web tool (e-platform) is defined by a series of intermodal hubs for each EU country and follows the hub and spoke model.

The intermodal network information is described in the web tool by an appropriate matrix. There are four matrices, each for different type of transport. The columns and rows of each matrix are the corresponding intermodal hubs. For each cell of the matrix, the following information is available: Distance by the equivalent mode, typical trip duration, typical cost and risk factor.

Each transportation leg (path) in the system is associated with a set of values that determine its overall performance. These factors are namely: trip cost, trip time, CO2 and risk.

The web tool identifies options by using a k-shortest path algorithm, which considers generalized cost and time. This system includes:
- Front-end functions used mainly by shippers and forwarders.
- Back-end functions are used by forwarders, carriers and the platform administrator.

The tool works following the next steps:
- User inserts information about trip.
- Web tool identifies possible options.
- System sends an email to carriers requesting a quote.
- Shipper/forwarder receives a Booking ID number.
- Carriers respond the email to it by inserting some data.
- Web tool provides the user with Tracking ID number.

Relevant transport modes or supply chain elements:
- Road/truck
- Heavy rail
- Deep sea vessels
- Transport
- Transhipment

Main actors involved:
- Port Authorities
- LSP
- Carriers

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More Best Practice cases and information about BESTFACT can be found at:
http://www.bestfact.net

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