LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

INTERNATIONAL CONFERENCE

Cloud computing

Innovation and enterprises in the logistic sector

October 30th 2012

Marino Cavallo, Luigia Sampietro, Partner of Logical Project

From 9.30 am to 5.00 pm // Provincia di Bologna - *Sala del Consiglio* // Via Zamboni, 13 // Bologna (ITALY)

CENTRAL EUROPE COOPERATING FOR SUCCESS.
EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND

Study on Sustainable Logistic

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

The Province of Bologna did a study to explore, through a survey, the logistic needs of SMEs.

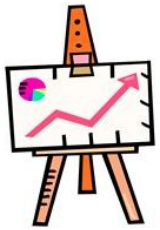
In particular the research was carried out on a universe of **392 companies located in two industrial areas** with a number of 150 contacts **(40%)**.

The analysis was carried out on a of a fifth **(1/5) of the contacts made.**

Results of the Study:

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

The Study highlights some SMEs weaknesses:



- 82% of companies **doesn't have a Logistics Manager**.
- 55% of companies make **use of the courier service (39%) or the transport is charged to customers (16%).**
- The remaining part employs **its own means of trasport**.
- **Only 30%** of interviewees saturates **its own means more than 70%.**
- 65% of surveyed companies **doesn't know the impact of freight costs** on the final product cost.
- 80% of enterprise **doesn't employ software systems to plan and manage the logistic activities.**

The 'Logistic Broker Service'

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

Considering the Study results, the Province of Bologna has decided to provide to SMEs a **innovative logistic service.** The aim of the Service is optimize routes and loads for the firms located in a same area thanks to the use of a software.

This software has been developed within the European Project **KASSETTS,** coordinated by ITL (Institute for Transport and Logistics), to identify innovative ICT techniques to optimize logistics and transport.

The 'Logistic Broker Service'

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

'Logistic Broker' takes over the entire transport planning acting **as a mediator between customers and carriers** thanks to the software support**.** The Broker activity reduces also their effort of finding the best and cheapest transport solutions.

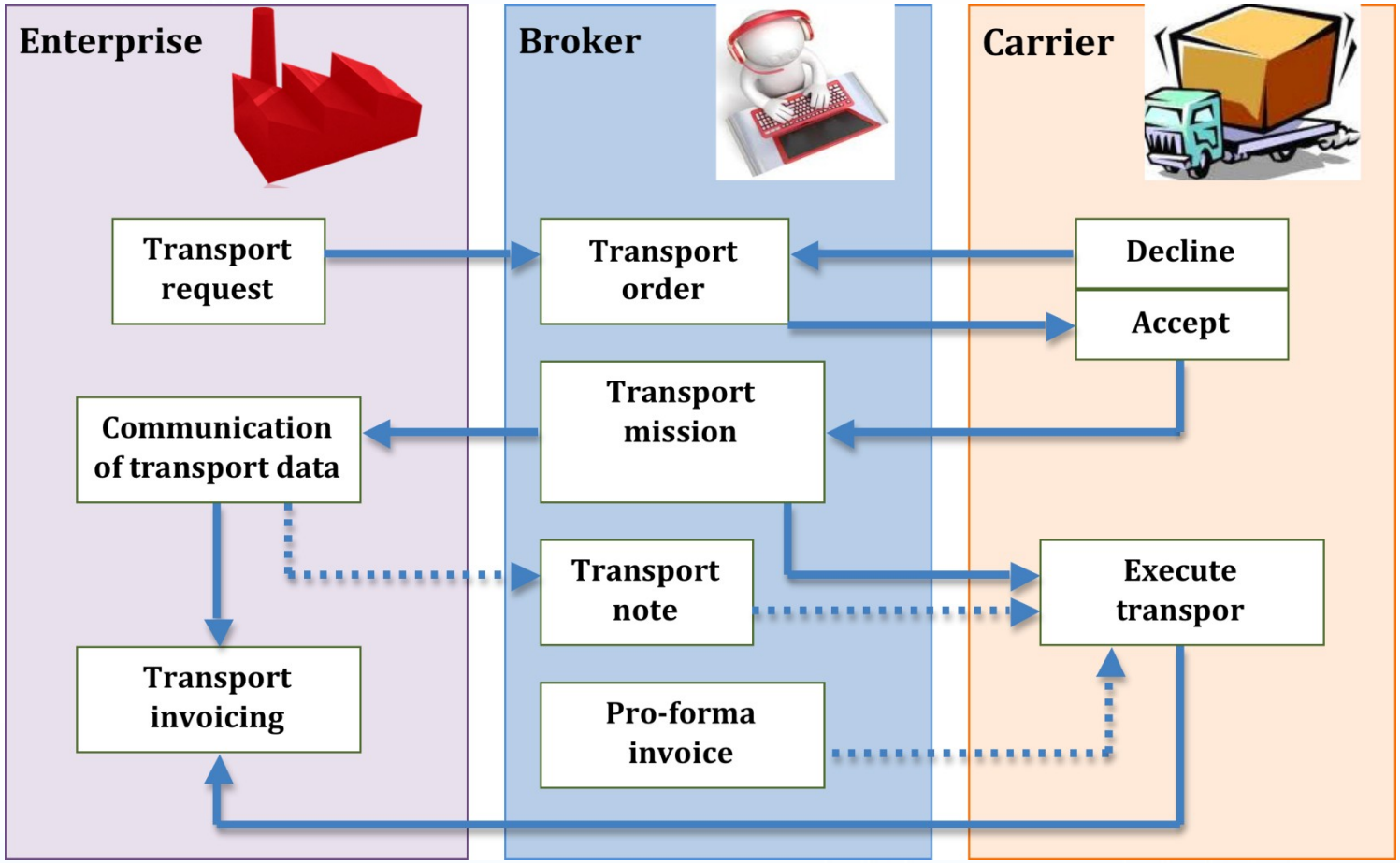
The role of the broker, already used within other European Projects, introduces important changes in the proceeding of the transport planning.

The broker acts as a shared logistics office for SMEs located in an industrial area:

- Collects transport orders of enterprises daily;
- Organizes transport requests choosing the best vehicle routing and optimizing the load.
- Interfaces the optimized request with logistics operators.

The 'Logistic Broker Service'

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models



CENTRAL EUROPE
COOPERATING FOR SUCCESS.

EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Service implementation phases

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

STEP 1

Involvement of enterprises. The Province of Bologna organized several **meetings and workshops** to introduce the service first to Trade Unions and then to enterprises of the Industrial Area of Budrio

STEP 2

10 enterprises joined the Service pilot project.

Of course it was checked the compatibility of the goods and it was tested non-competition between companies to get a ***neighbor collaboration***

Service implementation phases

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

STEP 3

- Involvement of **logistic operators** who currently offer a transport service to companies

- Information collection on **costs, pricing and services offered** by logistic operators

CENTRAL EUROPE
COOPERATING FOR SUCCESS.
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Service implementation phases

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

STEP 4

Check up of logistic state of art of each enterprises involved with a **LOGISTIC AUDIT**

The Province of Bologna is offering to companies of Budrio industrial area a logistic **audit:** a technical and economic analysis of internal logistics system and distribution and the potential areas for optimization.

Information on logistic has been collected through a survey organized into **the following sections**:

- General information about the company;
- Transport details refer to a period of 2 weeks;
- Information on warehouse management.

CENTRAL EUROPE COOPERATING FOR SUCCESS.
EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND

Service implementation phases - step 5 (1/3)

STEP 5

A team of experts is analyzing the logistic and transport habits of each enterprises and provides them a **report** on the state of the art and on the potential area of optimization.

The report provides a **forecast of the saving,** that the company could obtain in case of aggregation of transport demand, highlighting the **potential reduction in km covered and cost per km**

Service implementation phases - step 5 (2/3)

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

Presentation of data and results of 'logistic analysis' related to individual company with particular reference to:

- **Kilometers per year**
- **Cost per year**
- **n°of routes per year**
- **Time spent per year**

CENTRAL EUROPE
COOPERATING FOR SUCCESS.
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Service implementation phases - step 5 (3/3)

Presentation of an analysis of aggregated demand of all the companies involved in the audit (simulation of logistics flows with the use of sw)

*It makes use of **clustering techniques** to aggregate tansport requests in groups of customers served by the same mission of the carrier*

	Single company	Aggregated demand	Saving	%
Cost per year	€ 7.548.171	€ 5.748.788	€ 1.799.383	23,8
Kilometers per year	8.071.272	5.533.795	2.537.477	31,4
Time spent per year	131.985h 24	99.636h 54	32.348h 18	24,5
N. of routes per year	19.316	11.990	7.326	37,9

Example - Analysis conducted on 13 enterprises in the Province of Modena

Logistic Broker

LOGICAL
transnational logistics improvement through cloud computing and innovative cooperative business models

'Logistic Broker' goes live

i) opening a office for companies in the industrial areas where the service was testes and

ii) supply of logistics services with the use of a computing platform where the entreprises, in «cloud» mode, could share information related to transport, storage, handling requests and supply capacity to create a profitable cooperation

CENTRAL EUROPE
COOPERATING FOR SUCCESS.
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

For more information and details

www.project-logical.eu

Staff Provincia di Bologna
Marino Cavallo
Marino.cavallo@provincia.bologna.it

Luigia Sampietro
ricerca.innovazione@provincia.bologna.it

CENTRAL EUROPE COOPERATING FOR SUCCESS.
EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND