



## *How can you work with us?*

Help us to understand your business operations and objectives so that we can build a system that matches your requirements. The more our ADVANCE team of expert researchers understands your needs, the better we can incorporate them into a system that does exactly what you want.

If you would like our system to maximize the benefits for your own operations, we would be delighted to work with you. Please get in touch with the leader of our User Requirements Team, Christopher Buckingham, at [Advance-suggestions@advance-logistics.eu](mailto:Advance-suggestions@advance-logistics.eu).

**Testing and evaluating** the ADVANCE system will allow for improvements triggered towards your needs.

**Participating** at user workshops will enable you to make the best use of the features provided by the ADVANCE system.

## *Contact us*

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## **Partner organisations**



<http://www.advance-logistics.eu>



Co-funded by the  
European Union

# ADVANCE



**Advanced  
Predictive-Analysis-Based  
Decision Support Engine  
for Logistics**

*Fast, flexible, and efficient distribution*



## Advanced Predictive-Analysis-Based Decision Support Engine for Logistics

### ADVANCE is working with Palletways

Palletways is the largest pallet freight network in Europe. Palletways' vision is to be the "European Pallet Network" of natural choice for the distribution of palletised freight. Their mission is to deliver a real and positive difference to the business performance of all their logistics members across Europe.

According to Palletways, small savings for each member in journey times and in unloading and loading lorries will create huge savings across the network as a whole. The ADVANCE project will make these improvements and increase growth in the business for Palletways and all 270 or more of its members across Europe.

### What can ADVANCE do for you?

Some possible advantages of ADVANCE are:

- Early visibility of customer orders and potential pallet demand
- Predictions of the number of pallets that need to be distributed, based on customer orders
- Predictions of spare trailer capacity
- Instant decision support about optimal trailer use achieved through real time minute by minute analysis of pallet arrival times based on GPS data and traffic news



- Support for coordinating customer orders with nearby depots to combine local resources to meet the central hub's demands for collections and deliveries
- Support for hubs to keep delivery obligations of depots equitable when customer demands fluctuate

### Why decision support for logistics?

A decision support system is a computer-based information system that helps an organisation to make management, operations and planning decisions that may be rapidly changing and not easily specified in advance.

Logistics networks typically accumulate **over one billion** new items of information each month (customer orders, pallets, trailer images, postcodes, depot data, GPS tracking of vehicles, etc.), **generated every minute** of every day by **thousands of pallets** travelling on **hundreds of trailers** for more than **one million customers** scattered across hundreds of thousands of postcodes, each with **multiple different service requirements**. Every second, thousands of data items come on stream at any point of the network and need analysis to guide short-term decisions about lorry deployment (within minutes) as well as longer term plans for carrying capacity.



### Why predictive analysis?

Predictive analysis will predict future trends and events based on current and historical facts.

The patterns and dependencies that exist in the 50 million or more data elements created daily in logistics networks can only be meaningfully processed by intelligent data mining approaches linked to strategic decision making based on longer term analyses of billions of pieces of information.

### The ADVANCE vision

The ADVANCE decision-support engine will enable strategic planning coupled with instant decision making to provide vision in a blizzard of data.

The ADVANCE software will have the capacity to analyse massive data sets for long term planning as well as rapidly processing huge amounts of new data in real time. It will provide a dual perspective on transport requirements and decision making dependent on the latest snapshot information and the best higher-level intelligence.

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