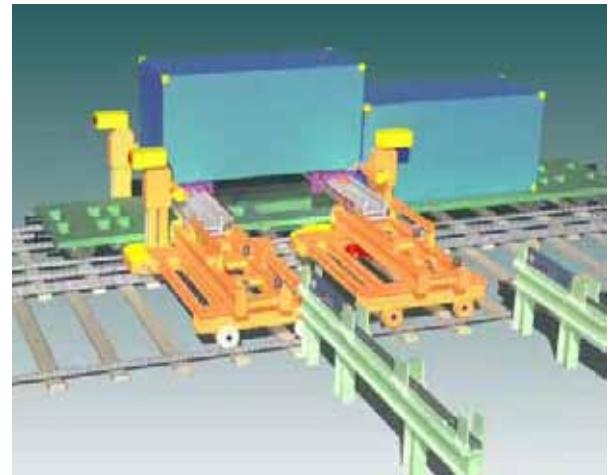


Intermodality?

After years of research and development, today intermodality is possible! It's flexible, cost saving, with a low environmental impact and compatible with many logistical flows.



Metrocargo. A fully automatic high performing system for the horizontal transfer of containers and swap bodies!



The **technological solution** available to **logistics operators**, harbours and dry ports.

It avoids load breakage, enables the diffused traffic flow and facilitates the containers handling into harbours and the link to inner harbours too.

Metrocargo is the technology that makes intermodality convenient and easy!

What's **Metrocargo**?

First of all, Metrocargo is a working method that allows to innovate the current operation of intermodal transport, without any changes to the railway wagons and the cargo units.

Metrocargo is a quick, cost saving and safe technical solution to load/unload trains. Depending on the configuration chosen, using the Metrocargo system a train can be loaded and unloaded completely in less than 60 minutes.

Why **Metrocargo**?

Today the transport by rail still has a remarkable space only with high volume of goods filling the train completely and only with some types of goods.

Intermodal transport is losing market share in favour of transport by truck, while it's growing in transborder relations.

With the traditional terminals, the unloading and loading operations, together with costs and times, do bind and limit the use of trains: only in case of points with a wide flow of goods, trains can be fully loaded.

With the traditional terminals, intermodality is not convenient in terms of cost, time and performance needed: a train cannot stop in many terminals just to load and unload a few cargo units. For these reasons, today, several flows of goods remain on trucks.

The Metrocargo technology adopts for cargo the same concept used for passengers. A network of shuttle trains is set up, running according to a defined time schedule, loading the cargo units progressively on different trains till they reach the terminal which is the closest to their destinations, and using trucks for the final door transport.

Like a passenger may change train into a station, so a loading unit can automatically change train in a terminal.

Metrocargo allows the creation of a logistics system able to set up a network of the existing

Why investing in a traditional system rather than in the automatic **Metrocargo** technology?

Metrocargo cuts the handling costs and grants a remarkably higher performance level versus the traditional systems (cranes, reach stackers) thanks to the following characteristics:

- Modularity
- Easy assembly
- Flexibility
- High reliability
- Easy transferability of equipment
- Only one operative line/track
- Horizontal transshipment under power line
- No railway manoeuvring
- Gradual investments based on the actual increase of flows, thanks to high modularity of the plant.

Where is **Metrocargo** useful?

- in inland ports
- in harbours
- in dry ports



intermodal infrastructures so as to exploit at best the existing latent synergies.

Metrocargo terminals can be easily combined with the traditional terminals to allow a convenient exploitation of intermodality.

The **Metrocargo** technology and the Intermodal Network

Metrocargo technology is a tool for the logistics operators to support the intermodal transport.

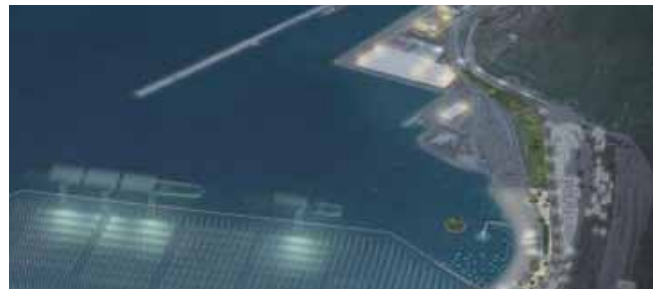
A terminal, equipped with the Metrocargo system, becomes a node of a wide network where a train can stop and quickly load or unload cargo units, with high levels of service and with competitive costs compared to road transport.

Metrocargo: benefits

- Cost saving and operating costs reduction
- Low operation time
- Integration with the existing traditional infrastructures
- Low environmental impact
- No changes needed to the containers and rail wagons
- Network services available even for single load units
- Wider use of the railroad
- Connection of harbour to dry port

Fields of application

- Networking intermodal widespread traffic
- Connection of Harbours to Dry Port
- Different gauge
- City logistics



Metrocargo: the new technology to handle containers that makes **intermodality flexible, cost saving and convenient.**

Vado Ligure - a case history

Metrocargo solution for Multipurpose Platform in Vado Ligure

The railway area is about 45 meters wide. In this area the harbour authorities request that 40% of TEU be moved. The new platform is connecting the railway area with a multitrailer system. Metrocargo system will optimises the use of the area, thus allowing four operations at the same time:

- unloading from trucks
- loading on wagons
- unloading from wagons
- loading on trucks





Metrocargo Automazioni Srl has carried out the Metrocargo Project.

Metrocargo: an innovative initiative promoted by the union and strong cooperation of highly skilled companies.

Metrocargo in key-words

- intermodality
- flexibility
- modularity
- environmental respect

FAQ

Q: How much space do you need to install a Metrocargo plant?

A: Since the solution is modular, the space required can be from 10 meters wide, limited in length to the stretch of the train to work up.

Q: Are auxiliary supports needed to move the container on the plant?

A: No additional tools are required. Containers and swap bodies are solely handled by the twist locks.

Q: What's the minimum distance that makes a transport by the Metrocargo intermodal terminal more convenient than the road transport?

A: Using the connection harbour - dry port, the benefits can be experienced even after a few kms while, using inland terminals, benefits are experienced after about 200 kms.

Q: Are any changes required to the railway wagons or container/swap bodies?

A: Definitely not.

Q: How does Metrocargo support freight distribution in the city areas?

A: The system allows the loading of standard and small boxes on trains and surface metro that get to the city from an outside hub; the loading units are then transferred on trucks (traditional or electric), that directly distribute from the city centre, thus limiting sensibly the traffic of vans from/to the city.

Q: Do loading and unloading procedures require operators?

A: No, they don't. The terminals are controlled and run from a control room. All operations including checks, are carried out automatically. Operators are needed to monitor the system. Their direct action is required only in case of anomalies or blocks.

Q: In which sense is Metrocargo useful in harbours?

A: In harbours, Metrocargo allows to speed up unloading and loading operations. For example, unloaded UTI can quickly reach the dry port by shuttle trains.

Metrocargo Strategic Partners:

