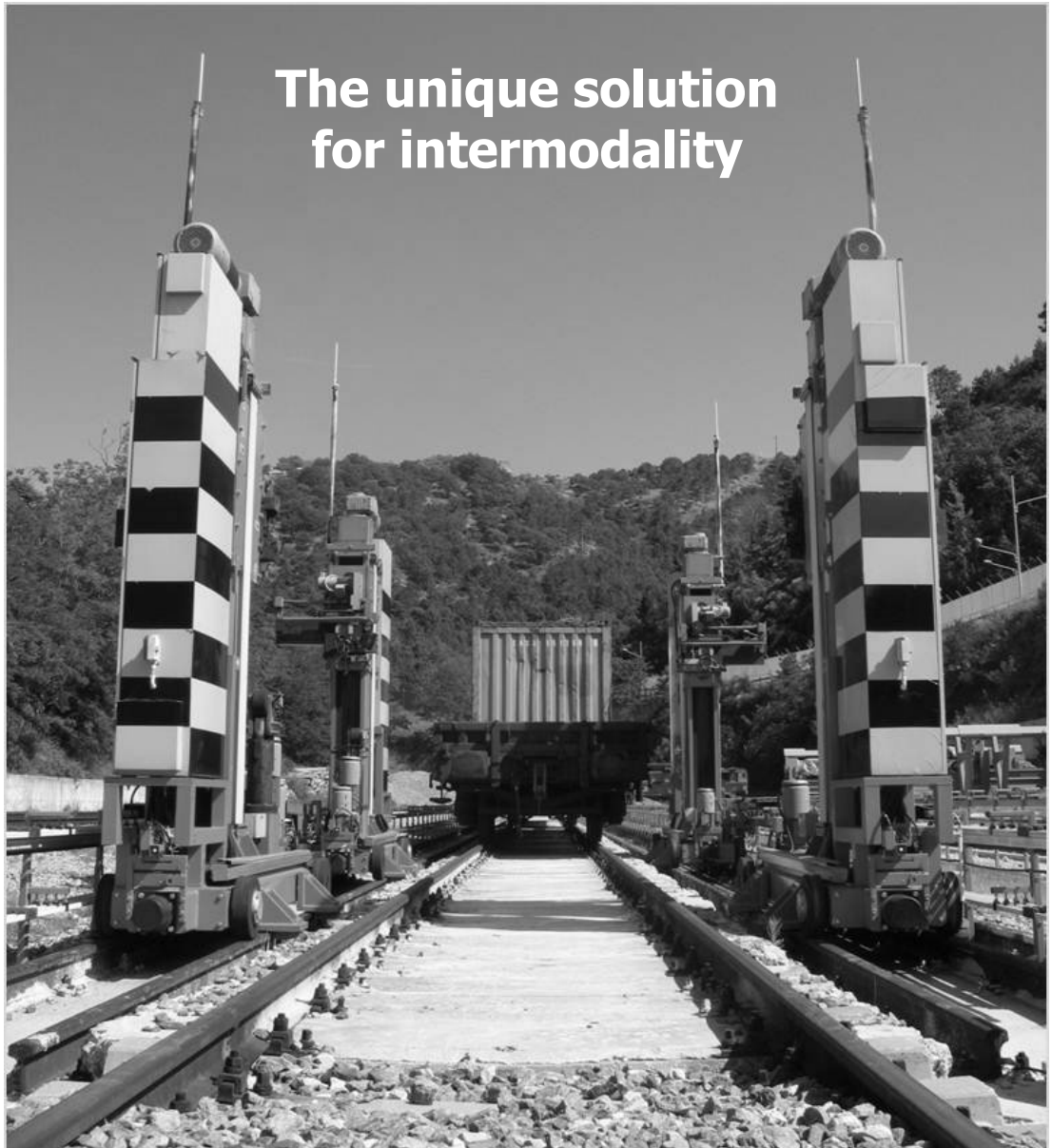


metrocargo

The unique solution
for intermodality



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INIZIATIVE LOGISTICHE S.R.L.

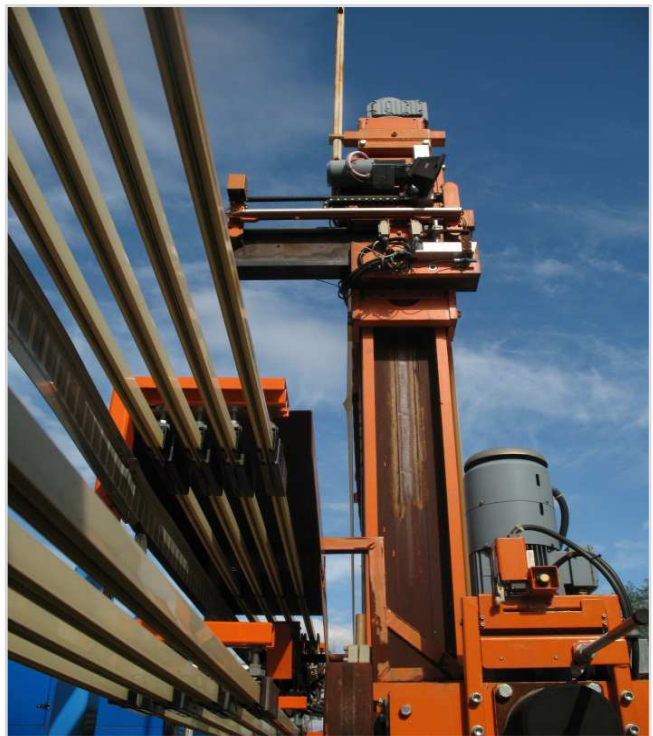
metrocargo
automazioni s.r.l.

What is Metrocargo?

- ❑ Metrocargo is an innovative concept for **intermodal door to door transport**. It has been conceived by I.LOG, a company operating in innovative logistics, with the engineering support of Metrocargo Automazioni, specialized firm in design and manufacture of equipments and automated handling systems.
- ❑ Metrocargo solves the problem of handling goods by road and rail with an **economic and faster transfer in horizontal mode** that can be built along the Rail Tracks immediately **under the catenary**, i.e. **without the need for any shunting activities**.
- ❑ **Complete automation, quickness, adaptability to any kind of train and container size, low environmental impact, high security** are the most valuable assets of Metrocargo technology, a unique solution for ports, interports and logistics operators.

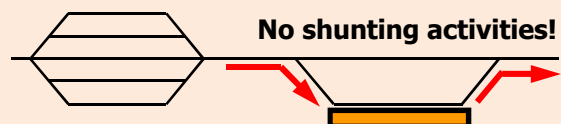
Why Metrocargo?

- ❑ Rail freight is losing market share to road and sea transport. This is due to cost and time of (un)loading of trains, that restrict use of railway. **Only fully loaded trains** and transport of certain kind of goods **can compete in the market**. Moreover, stopping a train to (un)load a few units of cargo is not economically viable using Traditional Terminals.
- ❑ Metrocargo allows the creation of a **logistics system capable of networking all infrastructure** where existing equipped Intermodal Terminals and Traditional Terminals can be easily combined.
- ❑ Handling time with Metrocargo is approx. **3 minutes for each unit load**, while the (un)loading of a **freight train takes less than 40 minutes**.
- ❑ Metrocargo system requires **no technical changes to railway wagons and unit loads**.



Terminal operational aspects

Trains remain **under the catenary**: Metrocargo automatic handling allows movements of containers in **total safety**.



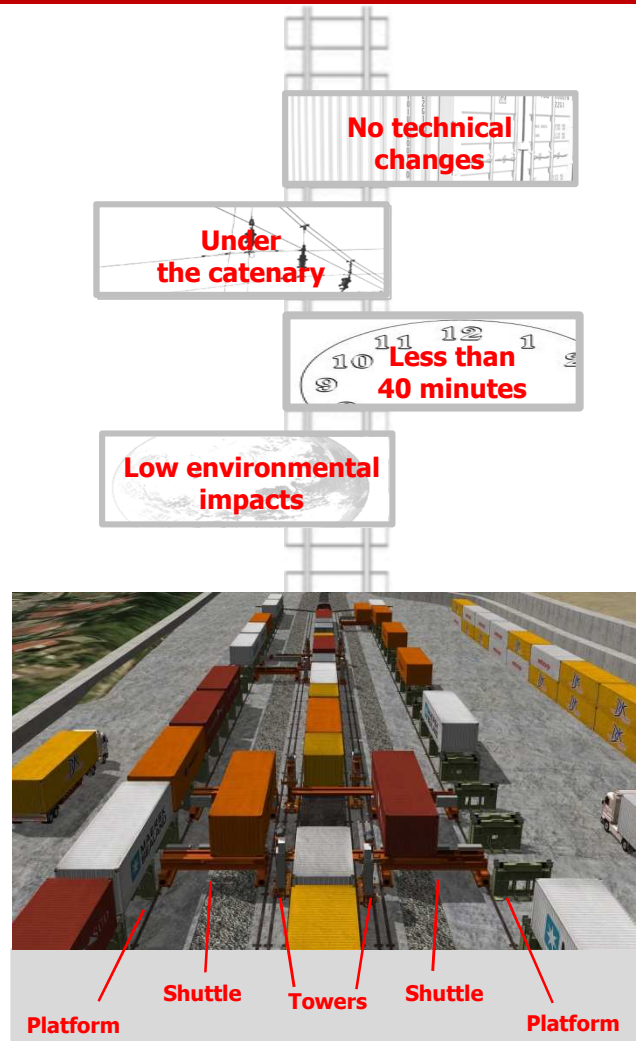
Handling is:

- **Fast and Parallel** to the principal railway
- **Highly Automated**
- Adaptable to **any kind of train and containers size**

The technology

- ❑ Metrocargo has been designed to be built along the Rail Tracks which allows the **loading process of a whole train in one operation** and **without** the need for **shunting activities**.
- ❑ Transport units arrive by truck at the Metrocargo Terminal and the complete Automated equipment transfers them in the best position for their next destination. When train is stationary, transport units are loaded on wagons moving **horizontally under the catenary**.
- ❑ At Terminal of destination the train units are unloaded and stored on the staking platforms until being transferred to the following train or truck that will deliver them to final destination.
- ❑ Metrocargo system is **modular** with each module consisting of:
 - **Four lifting towers**
 - **One shuttle**
 - **One platform**

Each element of the module has a **carrying capacity of 40 tons**.



Metrocargo performance

The two following charts show the excellent performances that can be obtained with Metrocargo in terms of **saved time for handling** and of **capacity**, with also a comparizon to traditional intermodal systems.

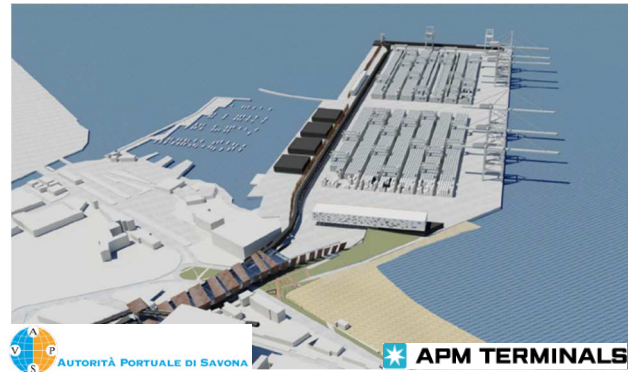
Metrocargo modules	Performance
2 modules	30 handling/hour
3 modules	45 handling/hour
4 modules	60-80* handling/hour
5 modules	75-100* handling/hour

*The highest performance are related to terminal operating on both sides of the railway line.

Metrocargo vs Intermodal	Intermodal system	Metrocargo system
Time for handling operations for the entire train (hours)	4-8	½-1
Number of loaded/unloaded trains per day	2	12
Time for stop of the train (hours)	12	2
Terminal's loading capacity per day (TEU)	400	2400

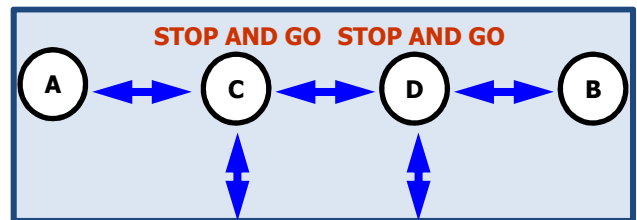
Application/1: Port Terminal

Metrocargo is the logistic solution selected for the new multimodal Maersk-Terminal in the harbour of Vado Ligure/Savona, whose construction work started during 2011. The Terminal will be able to host container ships of Post-Panamax generation (up to 14.000 TEU). Metrocargo will carry out the **connection to the railway** net and will **move 40% of all containers** arriving at the Maersk-Terminal. The project is developed in cooperation with the Savona Port Authority.



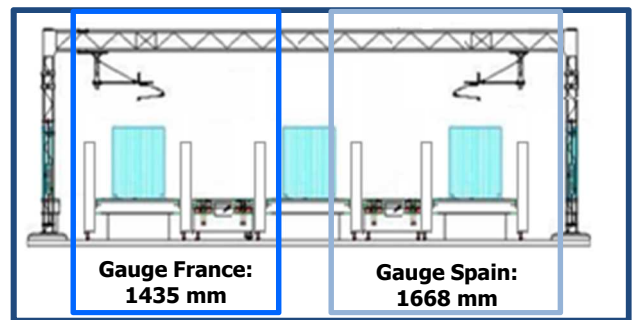
Application/2: Network creation

Nowadays a loaded block train leaves and goes to its destination to be unloaded. With Metrocargo it is possible to move **from a "point to point" to a "stop and go" approach**, creating a network for the first time.



Application/3: Break of gauge

Metrocargo is capable of being installed on **railway lines with different gauges**. That flexibility allows a **fast and economical transshipment of goods**. Shunting activities are not required, space occupied by transshipment is reduced and the time for intermediate storage is limited.



Metrocargo Automazioni

Metrocargo Automazioni s.r.l. is a company specialized in **design and manufacture of equipments and automated handling systems**. Headquartered in Genoa, the company is **committed to the commercialization of Metrocargo** system.

Doriano Mistrangelo – General Manager

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I.LOG Iniziative Logistiche

I.LOG Iniziative Logistiche s.r.l. is an engineering company specialized in the **development and the promotion of innovative activities in the logistics field**. Founded in 2004, the company avails itself of the **collaboration of many international firms as partners** and leads the European project **MIT – Metrocargo Intermodal Transport**.

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Shareholders of Metrocargo

