

# Port of Hamburg Rail

The Port of Hamburg in Germany handles over 5 million container boxes annually. Of these 3.3 million are export or import containers and have to be moved to or from an inland location. The remaining 1.7m boxes are transshipment containers.

Located in the heart of the city and with limited inland waterway connections the Hamburg Port Authority has invested heavily in developing good railway links and today manages a network of over 300km of rail track within the port area.

The modal split for the inland movement of containerised cargo is 55% by road, 42% by rail and 3% by inland waterway. This means on an average working day about 6,000 containers arrive or depart by road and each week 27,000 containers (equivalent to 47,000 TEU) are handled by rail.

With over 1,000 container trains arriving or departing each week the Port of Hamburg considers itself to have the largest rail throughput of any port in Europe. Trains run not only within Germany to places such as Bremen and Berlin but also beyond to European cities in Switzerland, Hungary and Italy. There are also services to 27 locations in China as part of the Belt & Road Initiative, although volumes are currently small it will be interesting to see how this develops in the future.

This time lapse shows the Eurokombi intermodal facility located next to the Eurogate Terminal. This facility has an annual handling capacity of 700,000 containers or swapbody units. The marshalling area shown in the foreground is used as a buffer for wagons waiting to be shunted to the tracks serviced by the 8 cRMGs, or for wagons waiting to be formed into train sets before being shunted to other marshalling yards in the port or transported inland.



## Key Terms

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- Block train
- Cantilever rail mounted gantry crane (cRMG)
- Classification (marshalling) yard
- Connectivity
- Hinterland
- Inland Waterway (IWW)
- Port throughput (throughput)
- Transport mode
- Transshipment
- Twenty foot equivalent unit (TEU)

## Glossary

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### **Block train**

Train made up of many wagons which carry a single cargo type such as containers, coal or cars from the same point of origin to the same destination

### **Cantilever rail mounted gantry crane (cRMG)**

Type of rail mounted gantry crane (RMG) that has a cantilever arm on one or both sides that services vehicles outside its legs

### **Classification (marshalling) yard**

A railway yard where railway wagons are sorted and organised into train sets

### **Connectivity**

A measure of transport network density and the directness of links between locations – a well connected location has many direct or short links to numerous other locations

### **cRMG (cantilever rail mounted gantry crane)**

Type of rail mounted gantry crane (RMG) that has a cantilever arm on one or both sides that services vehicles outside its legs

### **Hinterland**

The landward region of a port where cargo originates from or is distributed to

**Inland waterway (IWW)**

A system of inland bodies of water including rivers, canals, lakes and bays / inlets navigable by ships and barges

**IWW (inland waterway)**

A system of inland bodies of water including rivers, canals, lakes and bays / inlets navigable by ships and barges

**Marshalling (classification) yard**

A railway yard where railway wagons are sorted and organised into train sets

**Port throughput (throughput)**

Amount of cargo loaded or unloaded by a port over a period of time – for example the number of tonnes, TEUs or passengers per year

**TEU (twenty foot equivalent unit)**

Measurement unit for containers based on a standard 20ft nominal length known as a TEU e.g. a 20ft container = 1 TEU and a 40ft container = 2 TEU

**Throughput (port throughput)**

Amount of cargo loaded or unloaded by a port over a period of time – for example the number of tonnes, TEUs or passengers per year

**Transshipment**

The transfer of a container/cargo from one ship to another ship

**Transport mode**

Refers to the transport type or method used to transport cargo - in container shipping the transport modes are ship, truck, train and inland barge

**Twenty foot equivalent unit (TEU)**

Measurement unit for containers based on a standard 20ft nominal length known as a TEU e.g. a 20ft container = 1 TEU and a 40ft container = 2 TEU