

Idea for project in IP5 – TD 5.3 and TD 5.4

Innovative concept for high-speed freight rail transportation:



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A strategy for a sustainable freight transportation

To avoid the marginalization of the rail freight transport in Europe

Hyperfreight proposes to improve the performance of freight trains to meet that of the best passenger trains so that both systems can operate **together on the same infrastructure**

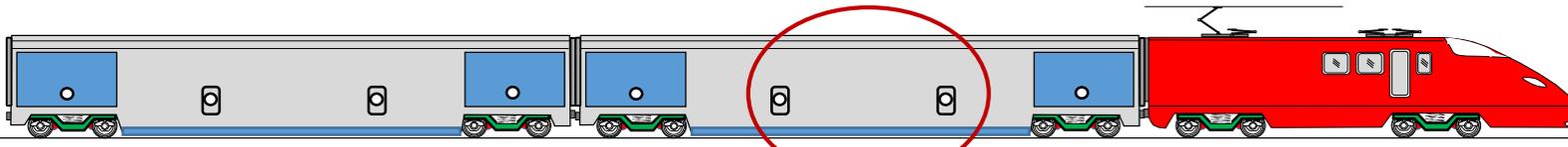
To ensure the compatibility between passenger and freight traffic in the overall European rail network **conventional and high-speed**

Hyperfreight transportation target

To improve the attractiveness of freight rail

Dramatically improve the average commercial speed of freight trains and reduce the waiting time of goods at terminals

Two technological challenges must be overcome



ISO 45' HC sea container inside

$V_{\max} = 250 \text{ km/h}$

1

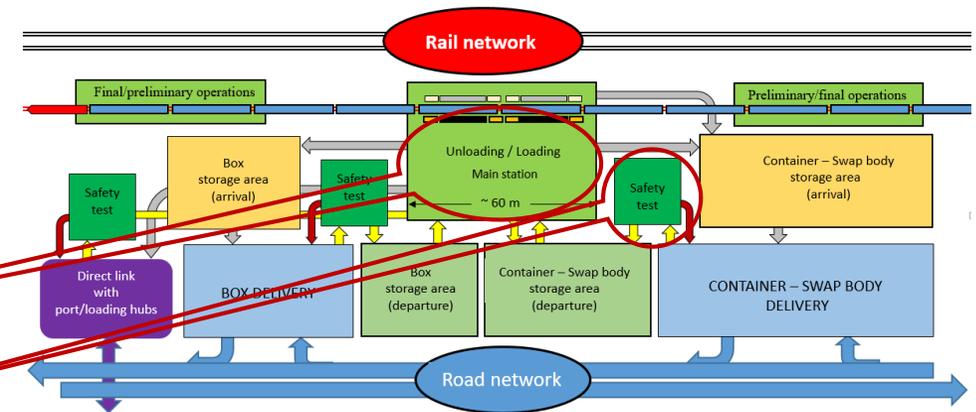
To develop a totally new High Performance freight train

2

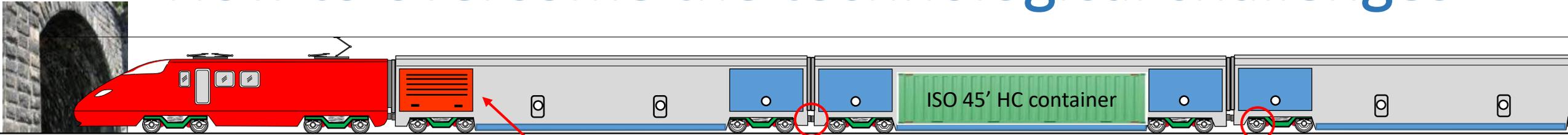
To realize a new High Performance freight terminal capable of drastically reducing the train stop time needed for unloading/loading operations

Fast Unloading / Loading system

Advanced safety test



How to overcome the technological challenges

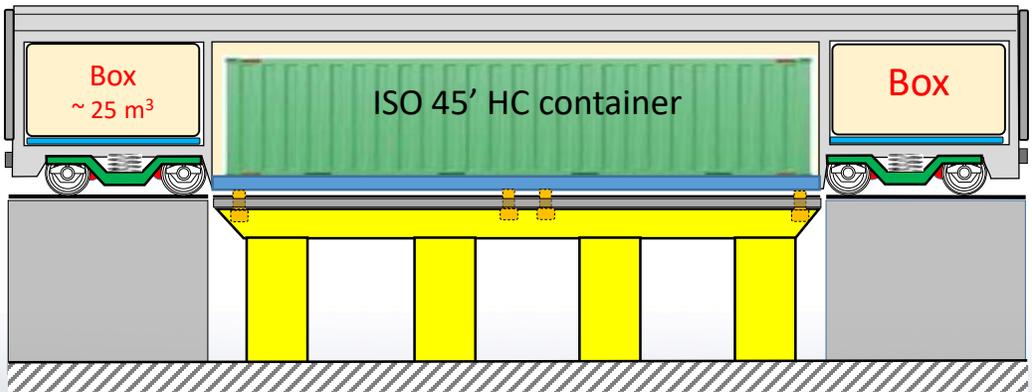


Energy storage (option)

Tractive and repulsion efforts transmitted by the coupling bars closely controlled in order to ensure that these are always largely contained within safety values

Traction and braking efforts are regulated, axle by axle, depending on the axle load

All axels powered



An original, very fast unloading/loading system *

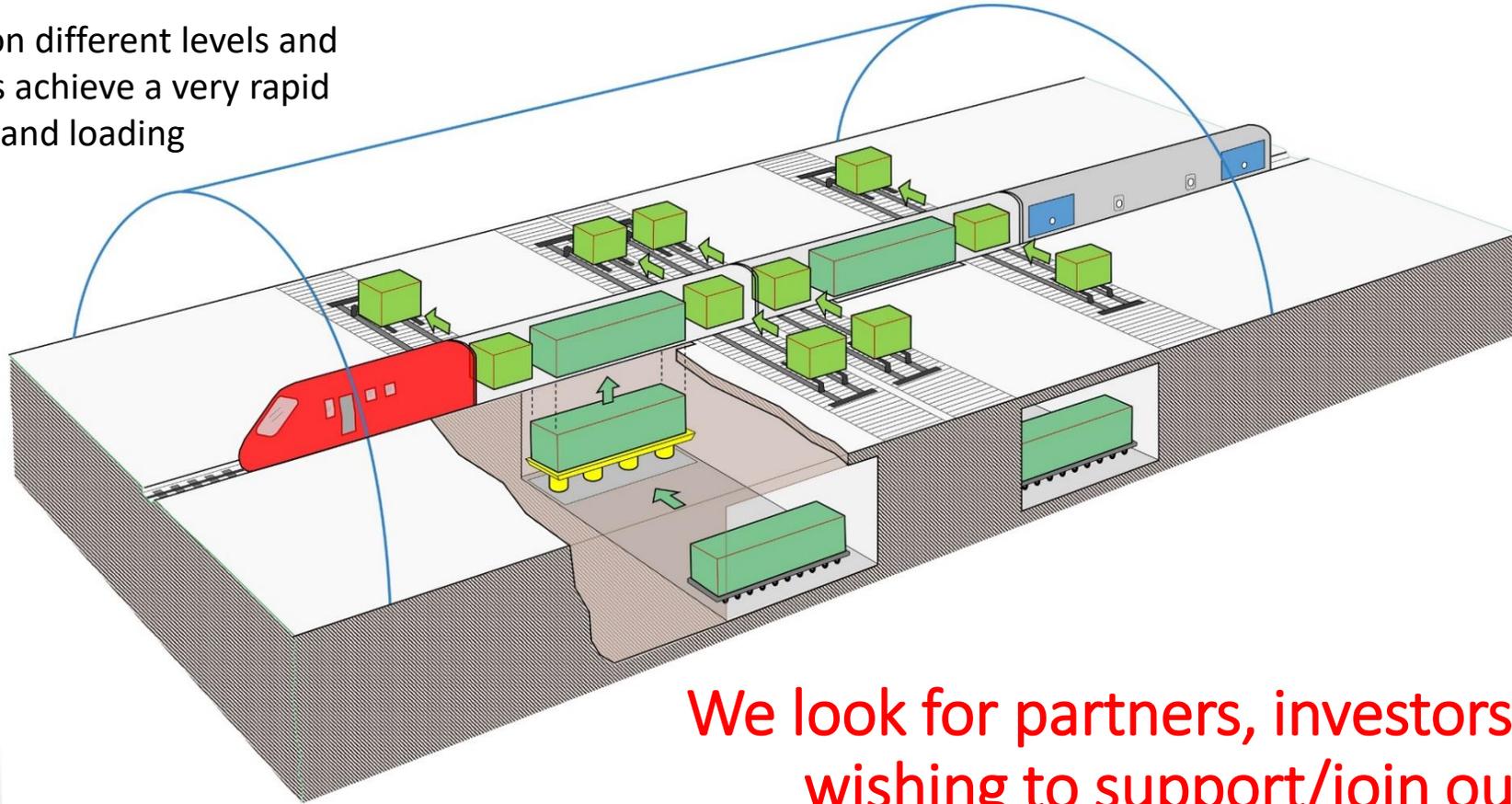
* Patent pending

- The system achieves important objectives, e.g.:
- ✓ Compatibility between ISO 45' HC containers and universal European loading gauge
 - ✓ Multimodal interface for door-to-door fast delivery of parcels (e-Commerce)
 - ✓ High level of automation in freight handling
 - ✓ Improved safety and reliability



An integrated system view

Parallel operations on different levels and on multiple vehicles achieve a very rapid unloading and loading



We look for partners, investors, organisations wishing to support/join our initiative
Contact us: info@hyperfreight.org