DIOMIS Seminar 2 - UIC

Combined Transport
The needs and the required measures

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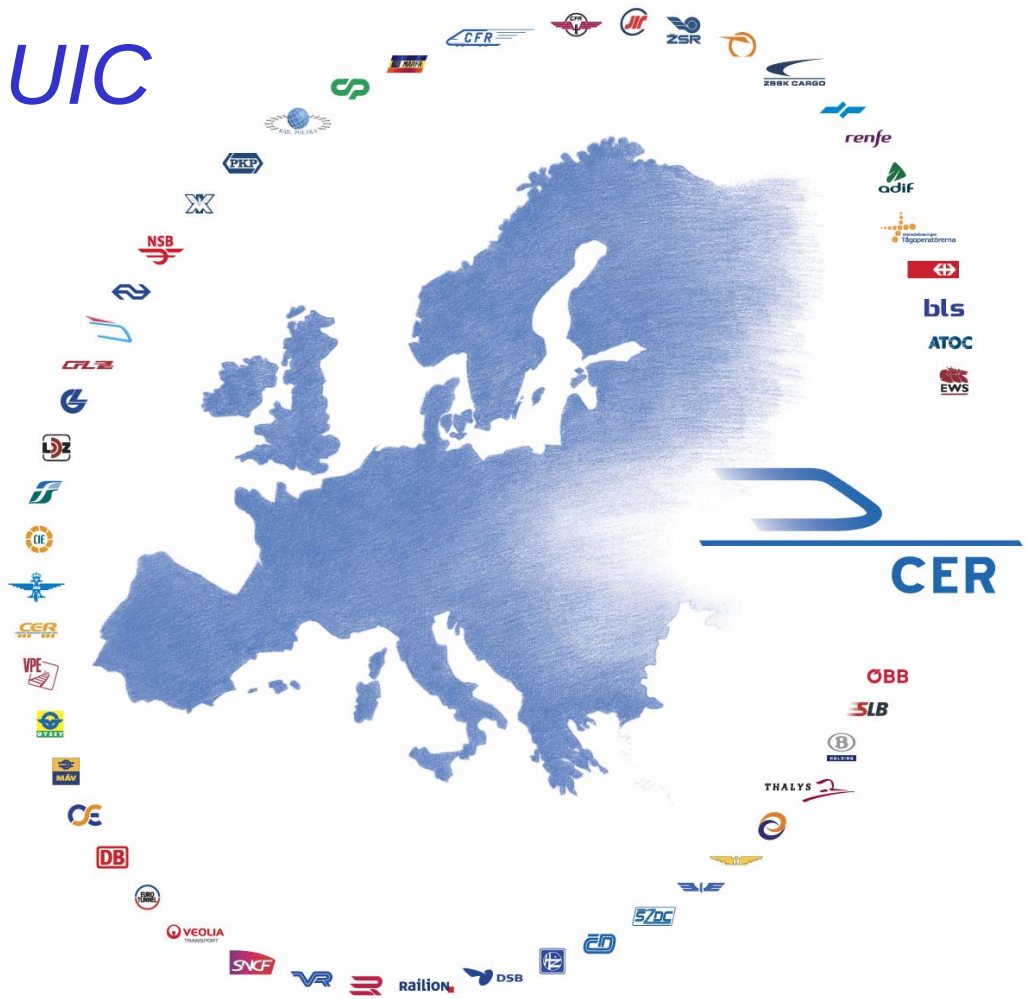
1 February 2007 - UIC - Paris



A Primary European Rail Freight Network (PERFN)

What is the case for such a network?

A Primary Freight Network: Why?

Because of the "Growing Demand" for rail freight.

Expected Growth…

- **Combined Transport**: **+113%** betw. 2002 and 2015 *(according to "Diomis")*
- **Total Freight**: **+67%** betw. 2005 and 2020 *(according to "UIC – ERIM")*
- **Total Freight**: from **+72%** to **+104%** betw. 2000 and 2020 *(according to "TEN-STAC")*

At nearly constant market share of rail (15% in EU15; 35% in EU 10)!

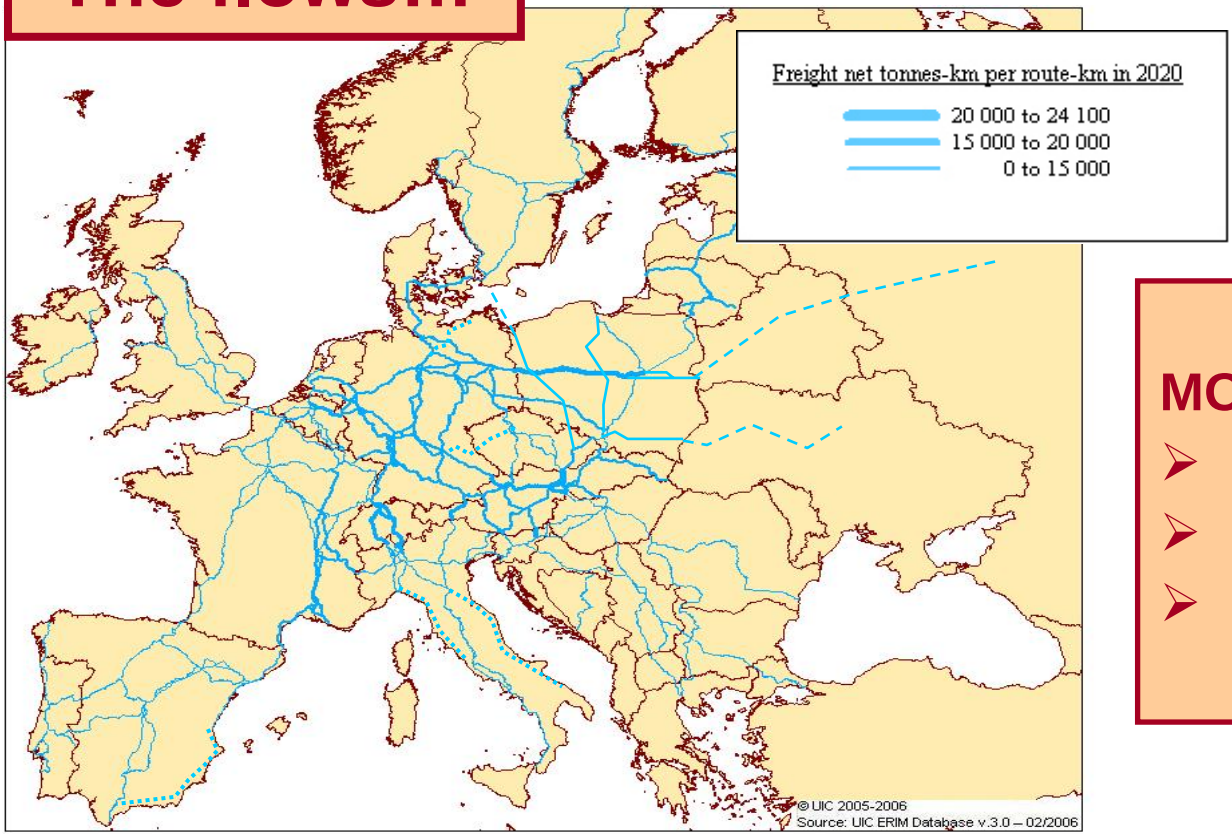
3 QUESTIONS:

- Is **optimisation** of the use of the existing infrastructure **enough** ?
- What about freight demand **growth after 2020** ?
- And what if we wanted to **increase the share of rail** from 15% to 40% ?

What will the demand be like?

Source: UIC ERIM + CER FFG/IWG

The flows…



The goods…

MOSTLY:

- **Light goods**
- **Intermodal**
- **Single-wagon-load**

What is needed to face the growing demand?

A Primary European Rail Freight Network

(PERFN)

Which Primary European Rail Freight Network?

A network **which boosts productivity**

- i.e. an infrastructure accepting **longer trains** (750m; 835m; 1,500m)
- Maybe an infrastructure accepting also **heavier trains**; faster trains; double-stack…

A network **free of bottlenecks**

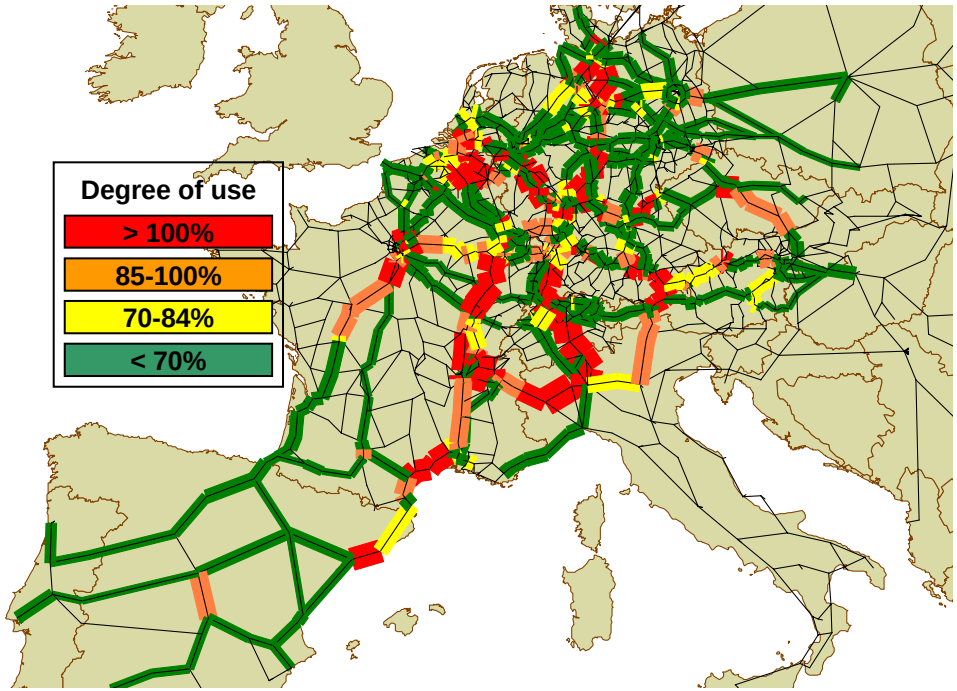
- An infrastructure which **relieves congestion** of rail sections and rail nodes.
- An **interoperable** infrastructure.

Proposal: The characteristics of the Primary Freight Network must be defined **corridor by corridor** (or on a geographical area basis) depending on **individual market situations**.

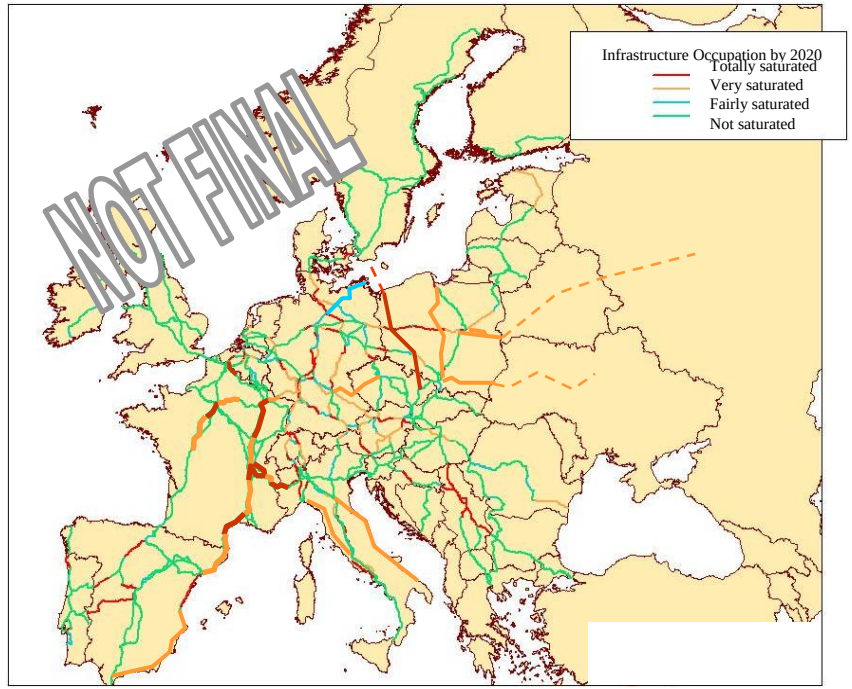
A network free of bottlenecks:

We very well know where the bottlenecks are and will be.

Planned infrastructure congestion by 2015 *(Source: Diomis)*



Planned infrastructure congestion by 2020 *(Source: UIC ERIM)*



Source: UIC CTG, UIC ERIM

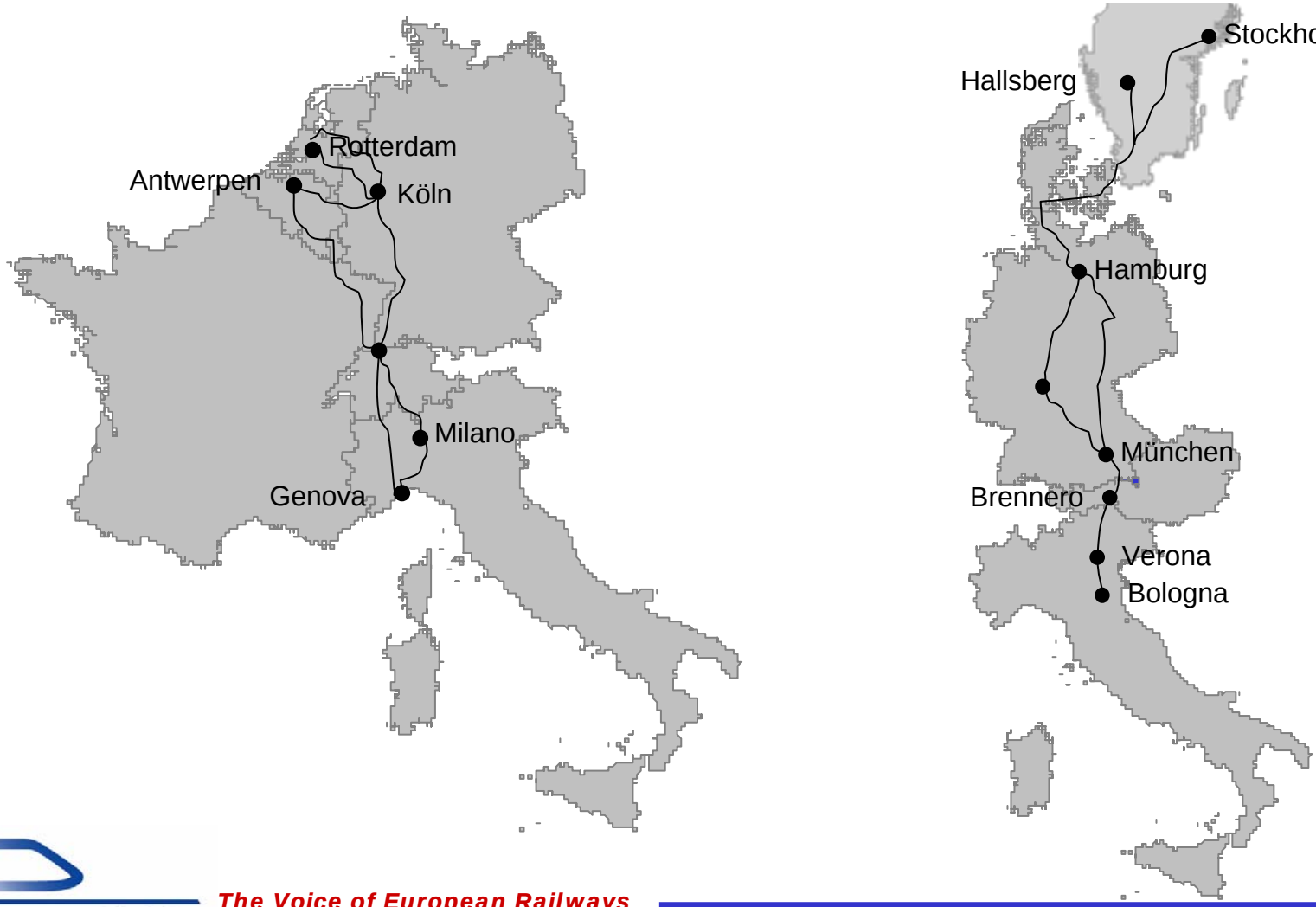
The CER study

A corridor-by-corridor approach:

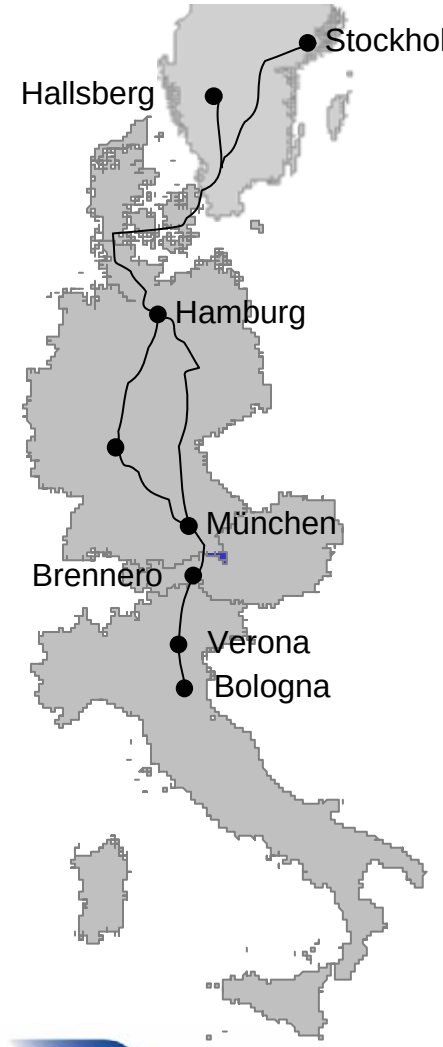
1. Corridor « Sweden Italy »

2. Corridor « Benelux Italy »

The CER studies: Boost **productivity** and **decongest** the corridors "**Benelux – Italy**" AND "**Sweden – Italy**"



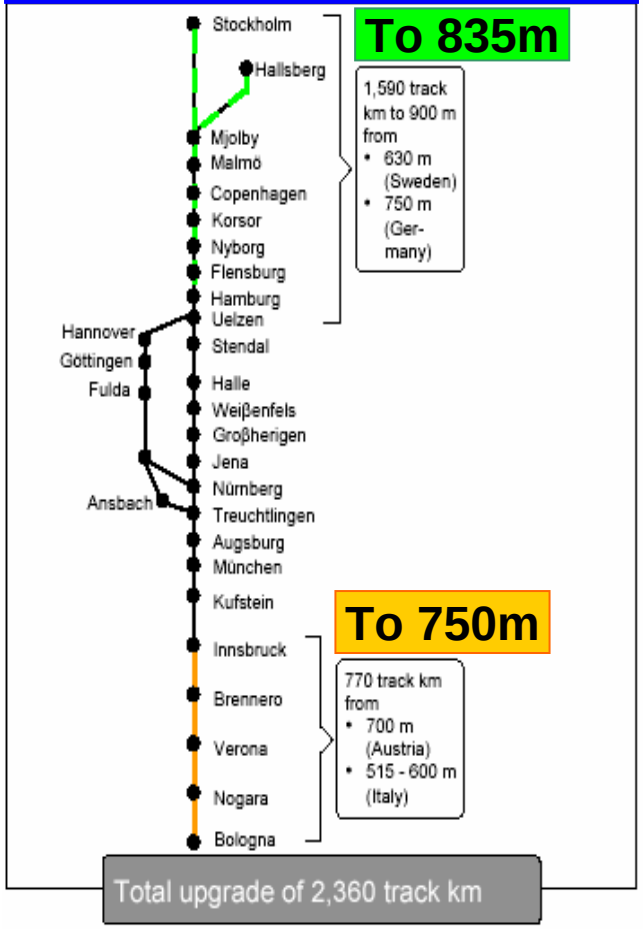
CER study: Gain **productivity** and **decongest** the "Stockholm – Bologna Corridor" in **medium term** (2015)



GAIN PRODUCTIVITY

750 m upgrade
900 m upgrade

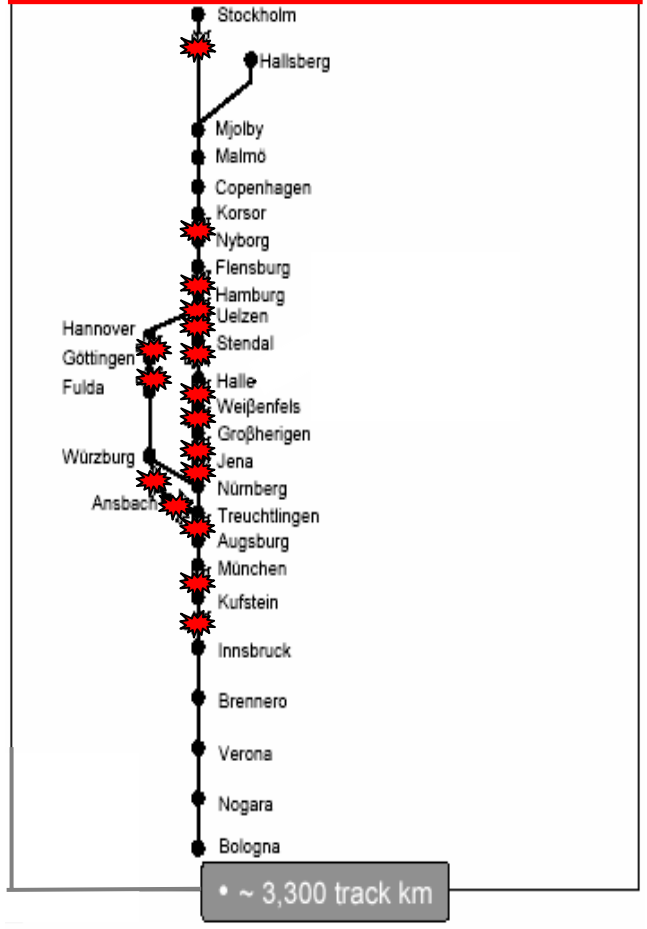
… with LONGER trains



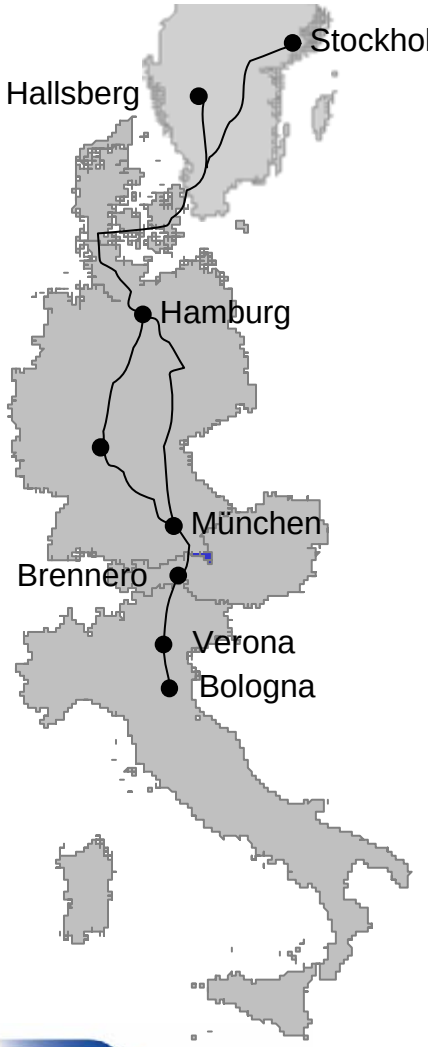
DECONGEST...

Identified bottlenecks

... relieve BOTTLENECKS



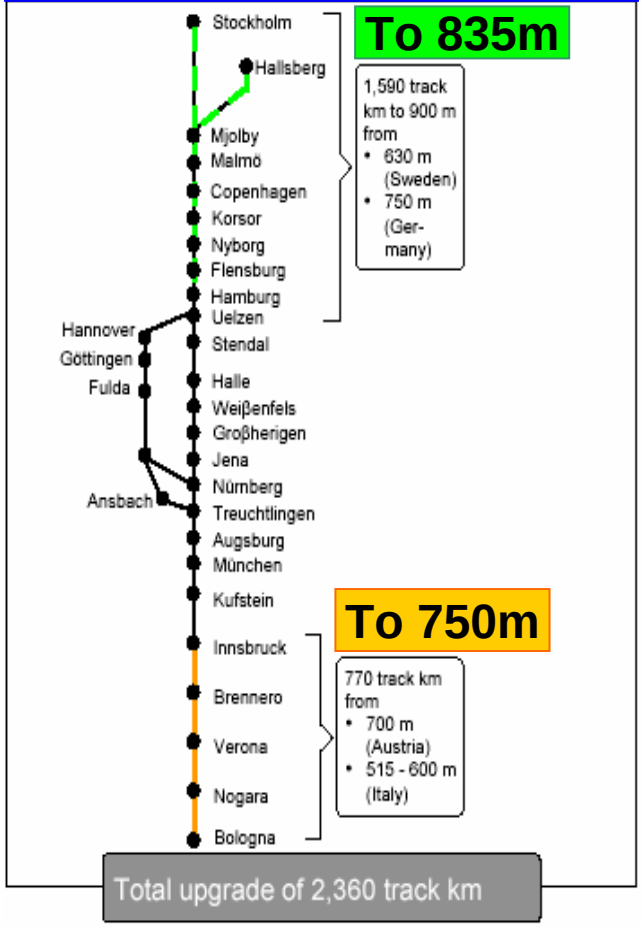
CER study: Gain **more productivity** on the "Stockholm – Bologna Corridor" in **long term** after 2015.



Gain PRODUCTIVITY

750 m upgrade
900 m upgrade

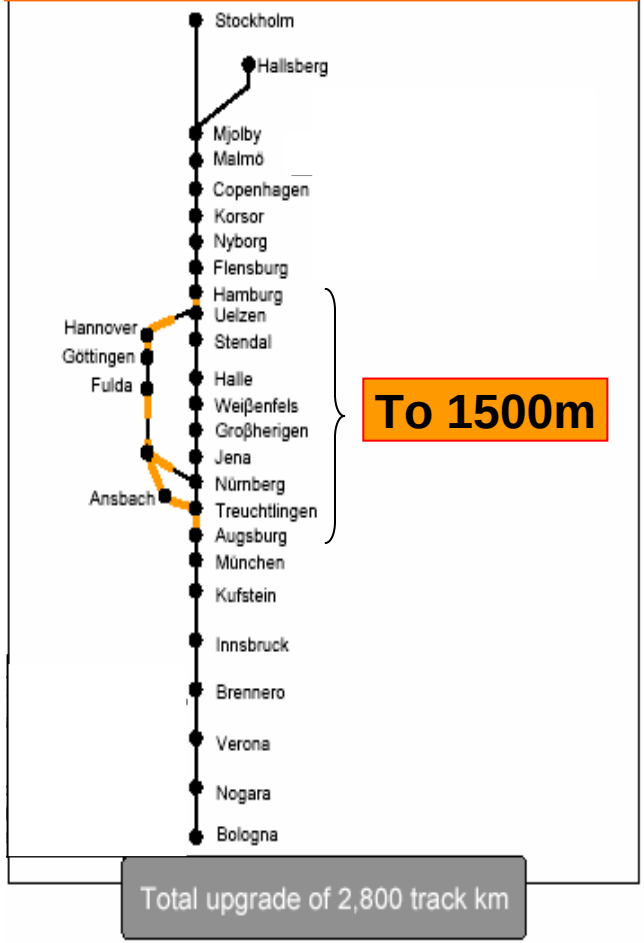
with LONGER trains (2015)



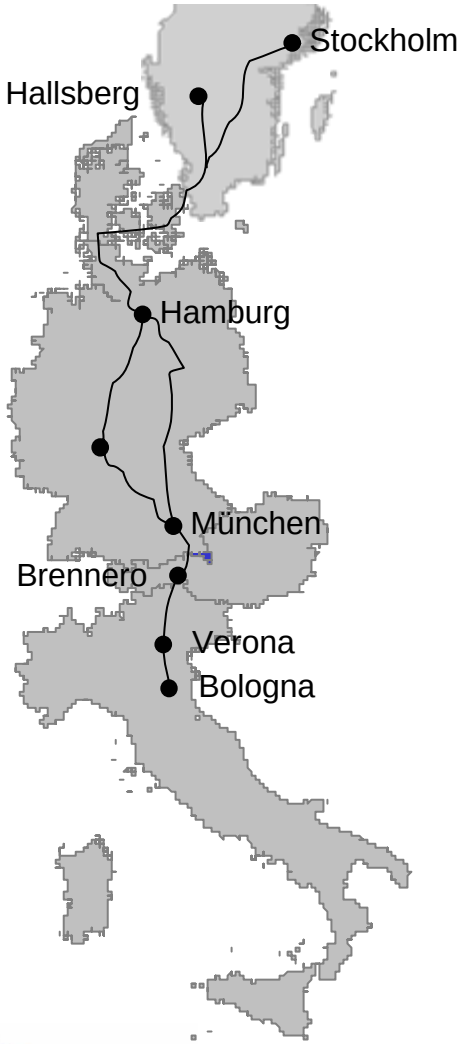
More PRODUCTIVITY

1,500 m upgrade

With "1500m" trains (2030)

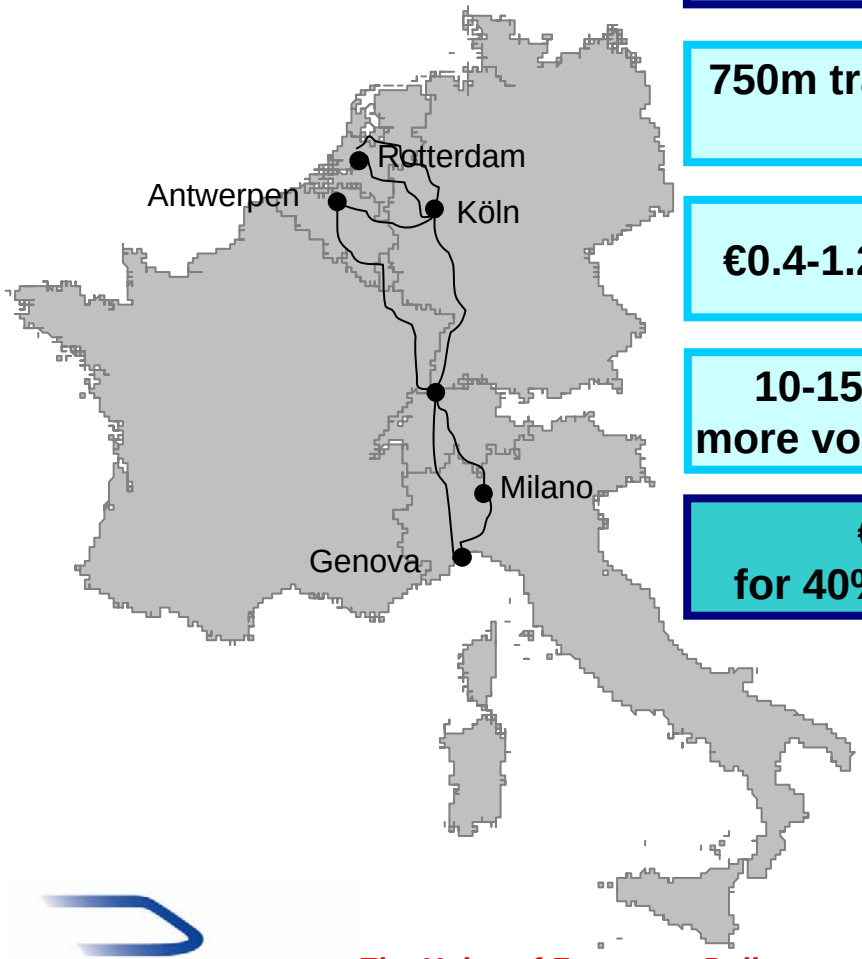


CER study: Which **investment** for what benefit on the Corridor "**Sweden - Italy**"? (Estimate)



MEDIUM TERM (until 2015)		LONG TERM (beyond 2015)	
750m trains (835m trains)	Bottleneck relief	1500m trains	Bottleneck relief
€0.3-0.6 bn	+€0.5-0.6bn	+€0.4-0.8 bn	+€4.5-6.1bn
10-15% more volume	+30-40% volume	+10-15% volume	+50-65% volume
€0.8 - 1.2bn for 40% - 55% more vol.		TOTAL: €5.7 – 8.1bn for 100% to 135% more vol.	

CER study: Which **investment** for what benefit on the corridor "**Benelux - Italy**"? (Estimate)



MEDIUM TERM (until 2015)		LONG TERM (beyond 2015)	
750m trains	Bottleneck relief	1500m trains	Bottleneck relief
€0.4-1.2bn	+€1.7-2.5bn	+€0.5-1.0bn	+€4.7-6.2bn
10-15% more volume	+30-40% volume	+10-15% volume	+50-65% volume
€2.1 - 3.7bn for 40% - 55% more vol.		TOTAL: €7.3 – 10.9bn for 100% to 135% more vol.	

Which investment for what benefit? (Estimate)

For both corridors: “Benelux - Italy” and “Sweden - Italy”

MEDIUM TERM (until 2015)		LONG TERM (beyond 2015)	
750m trains (835m trains)	Bottleneck relief	1500m trains	Bottleneck relief
€0.7-1.8 bn	+€2.2-3.1bn	+€0.9-1.8 bn	+€9.2-12.3bn
10-15% more volume	+30-40% volume	+10-15% volume	+50-65% volume
€2.9 - 4.9 bn for 40% - 55% more vol.		TOTAL: €13.0 – 19.0 bn for 100% to 135% more vol.	

What to do next?

1. Produced two « timed plans »
2. Study at least 4 new corridors

Next steps

Do 2 corridor-coordinated plans (ERIM)

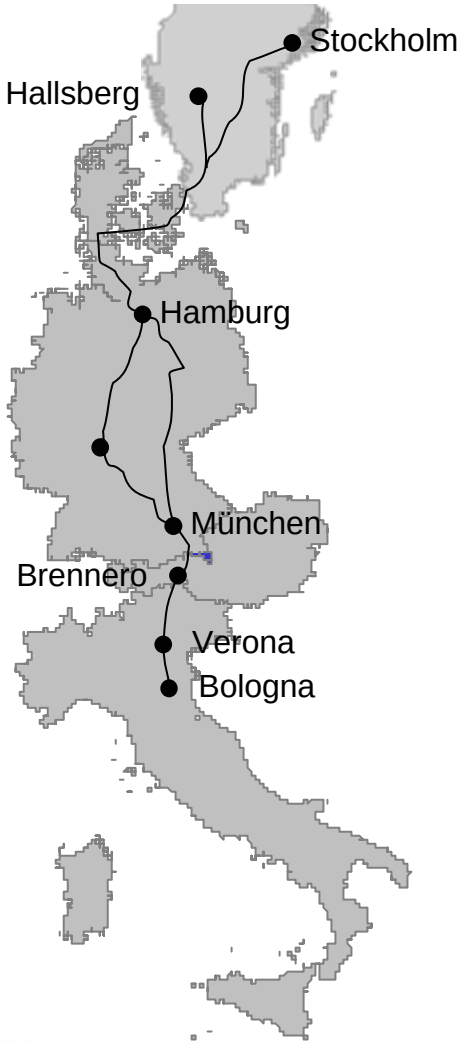
- Check and refine the **investment figures** on the 2 corridors
- Define the **order of corridor investments** (to optimise the cost/benefit ratio)

Study new corridors (network)

- Study at least **four new corridors** before April 2007
- Provide appropriate **financing**.

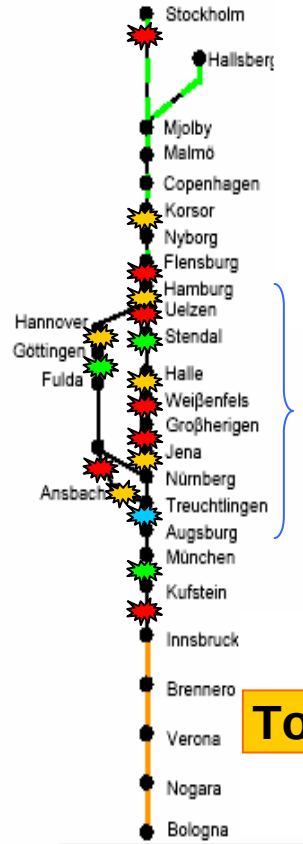
Short term actions:
- CER-McKinsey and ERTMS corridor teams refine figures.
- Do further studies on the remaining ERTMS corridors.

CER-ERTMS teams work: Check investment figures & produce a “Corridor-Coordinated Plan”



750 m upgrade
900 m upgrade

Stepped investments...



To 835m

To 1500m

To 750m

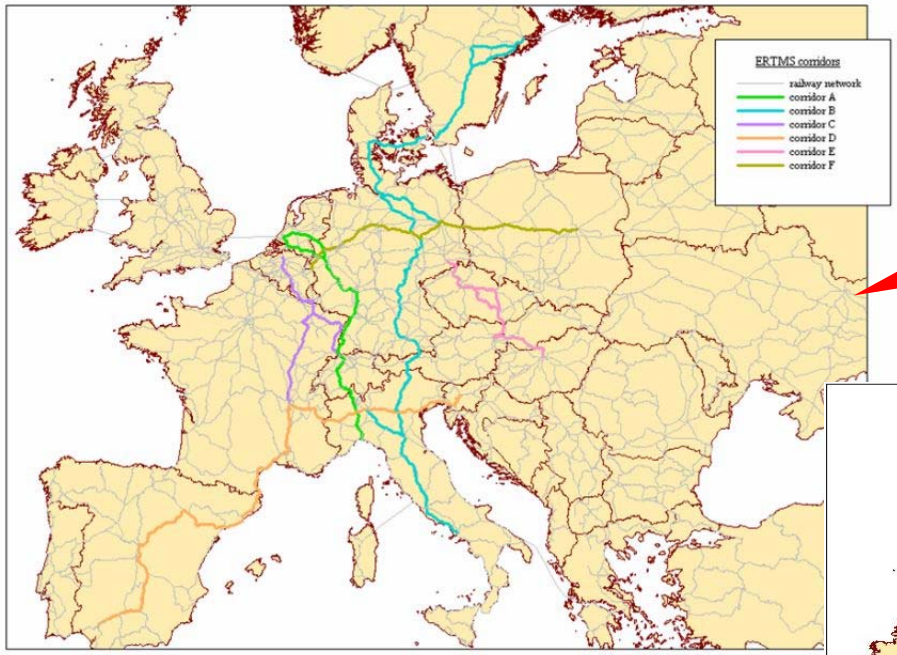
Total upgrade of 2,360 track km

SPECIMEN
Still to be researched

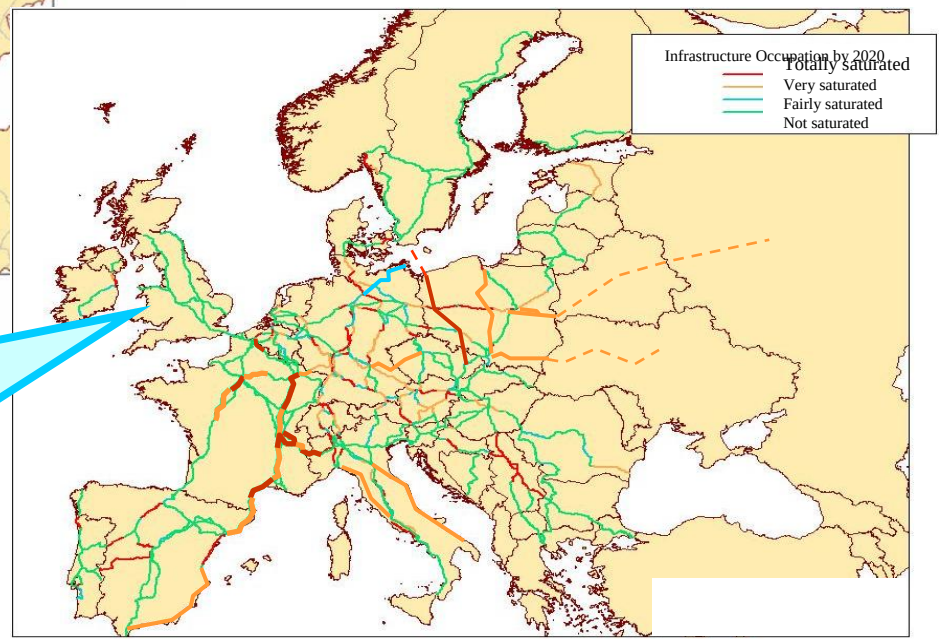
Investment priority

- 2007-2010
- 2010-2013
- 2013-2015
- 2015-2020

Proposed task for CER members: choose new corridors to make up a **FULL European Investment Plan**…



Advice Nr 1:
Focus on ERTMS corridors



Advice Nr 2:
Possibly expand from the ERTMS basis.