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# RAIL INFRASTRUCTURES AND SERVICES:

## CONNECTING EUROPE FOR CITIES AND PEOPLE

### *Passenger Rail Concept for Central Germany*

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*Bologna, October 15<sup>th</sup>, 2014*

# Passenger Rail Concept for Central Germany

## Agenda

- (1) Background & Bottlenecks
- (2) Passenger Rail Concept
- (3) Perspectives



# Passenger Rail Concept for Central Germany

## Background & Main Bottlenecks Identified

Rail Infrastructure  
+  
Rolling Stock

- Gradual, but slow and uncoordinated upgrading of rail and hub infrastructure
- Integration into national/transnational HS railway network by 2015/17
- Lack of comfort in rolling stock for medium and long distance trips

Rail Services  
+  
Timetables

- Areas of high demand potential without access to appropriate rail services
- Limited synchronisation of regional and long-distance train timetables

Fares  
+  
Tariff System

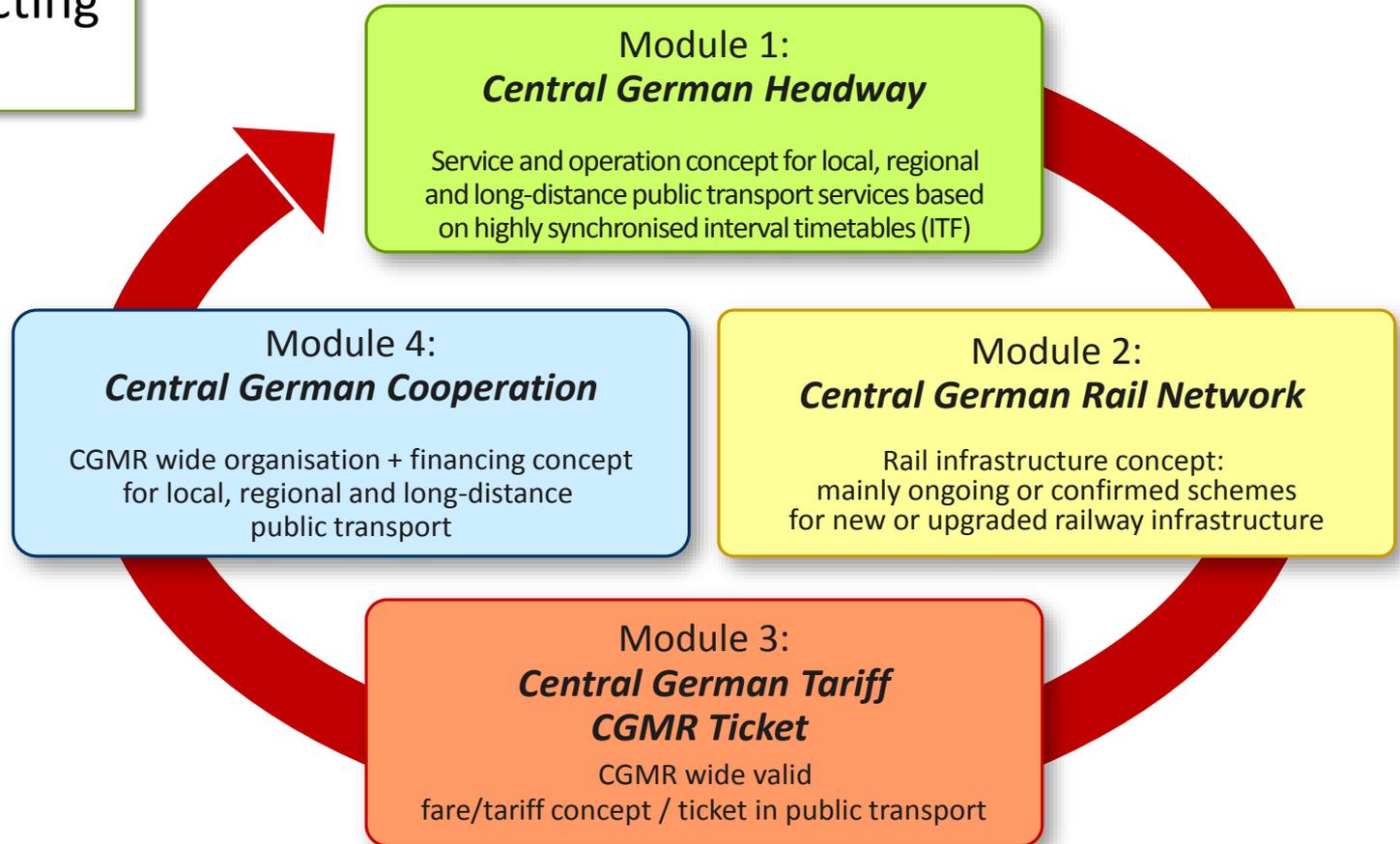
- Lack of through-fares and integrated tariff system comprising local, regional and long-distance public transport

Organisation  
+  
Financing

- Spatial fragmentation of governance structures for rail services

# Passenger Rail Concept for Central Germany

Four Interacting Modules



# Passenger Rail Concept for Central Germany

## Module 1: *Central German Headway*

### Strategic Concept

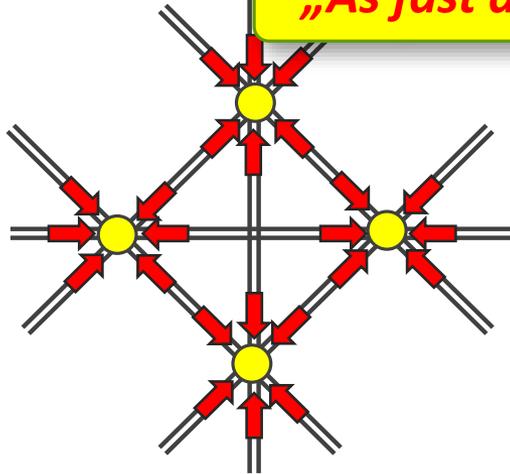
- High-class passenger rail services
  - to interconnect all big cities in Central Germany
  - to provide access to HS rail hubs
- Full integration of long-distance (HS) train services and new regional express rail services (= „MDX Lines“)
- Option: Extension of MDX lines beyond the borders of Central Germany
- Following the principles of Highly Harmonised Regular Interval Timetables to connect all rail services in multiple hubs („ITF Philosophy“):

# Passenger Rail Concept for Central Germany

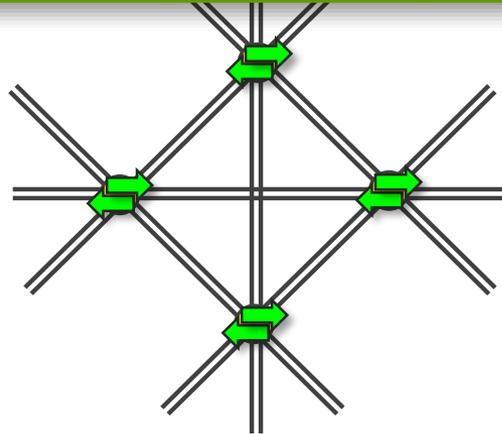
## Principle Functioning of Harmonised Regular Interval Timetables (ITF)



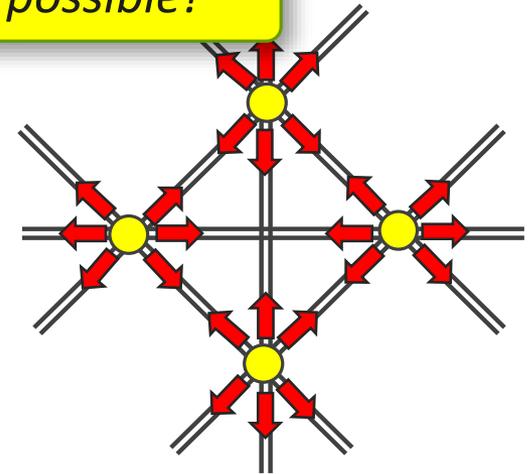
**„As fast as necessary!“ and not „As fast as possible!“**



*Trains are approaching stations around the same time.*

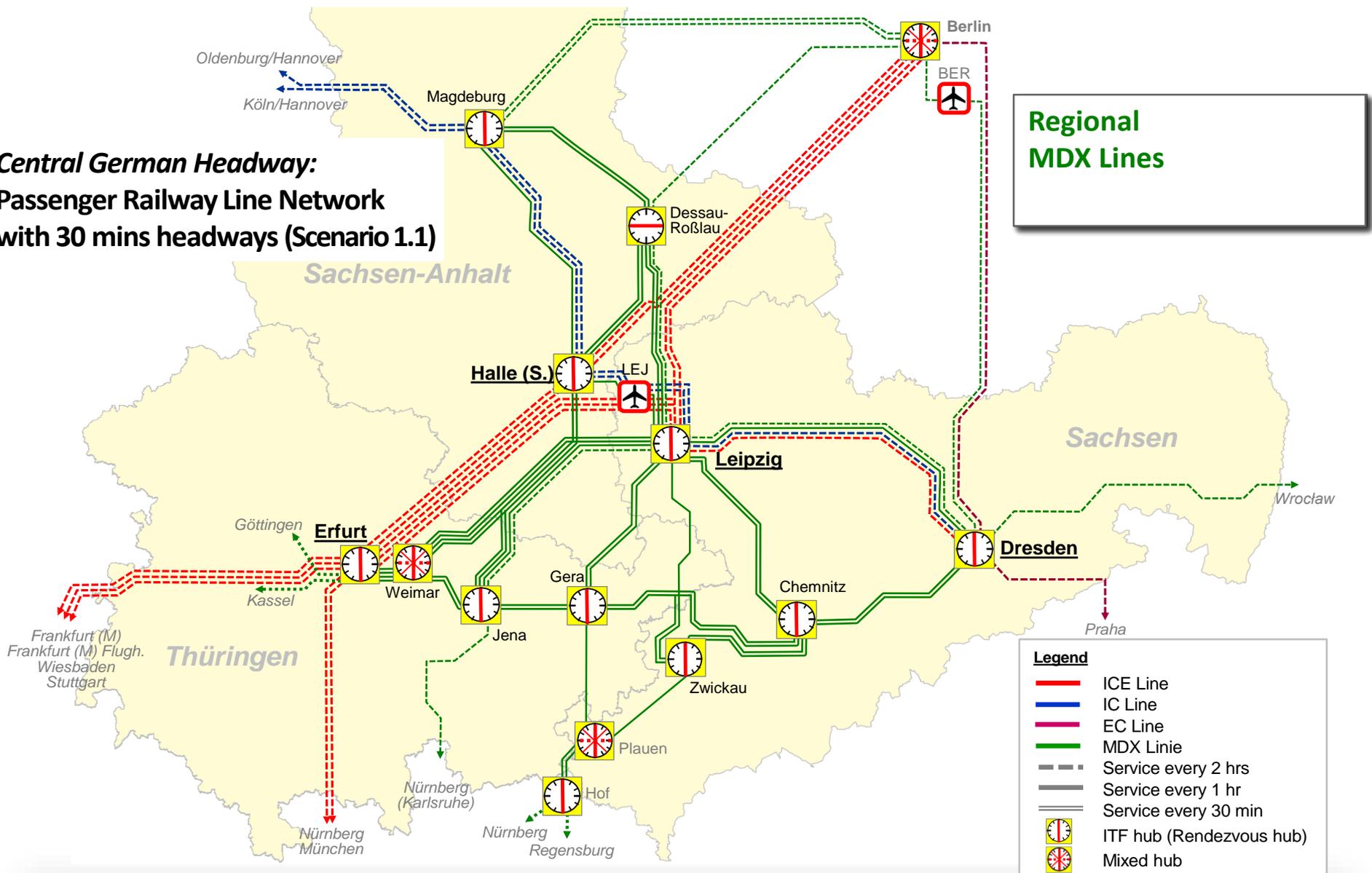


*All Trains are stopping at stations  
→ **Rendez-Vous Hub**  
Transferring between all lines.*



*Trains are leaving stations around the same time.*

**Central German Headway:  
Passenger Railway Line Network  
with 30 mins headways (Scenario 1.1)**



**Regional MDX Lines**

**Legend**

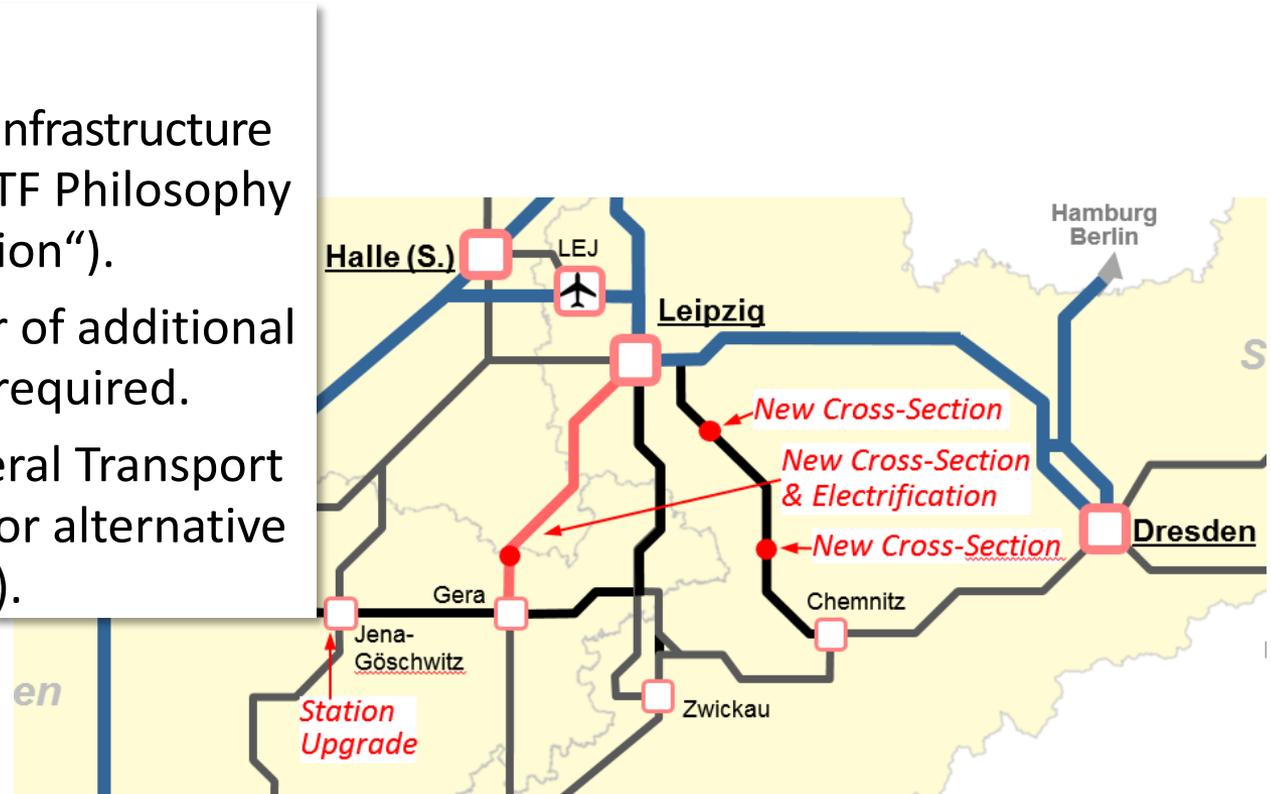
- ICE Line
- IC Line
- EC Line
- MDX Linie
- Service every 2 hrs
- Service every 1 hr
- Service every 30 min
- ITF hub (Rendezvous hub)
- Mixed hub

# Passenger Rail Concept for Central Germany

## Module 2: *Central German Rail Network*

### Strategic Concept

- Upgrading of railway infrastructure in accordance with ITF Philosophy („form follows function“).
- Only limited number of additional upgrading schemes required.
- Notification for Federal Transport Infrastructure Plan (or alternative funding if necessary).

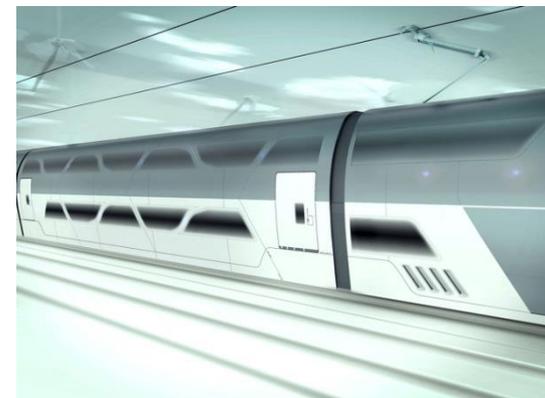


# Passenger Rail Concept for Central Germany

## Module 2: *Central German Rail Network*

Definition of Requirements and Standards on Rolling Stock for MDX trains:

- Maximum speed of 160 km/h up to 200 km/h (prerequisite for the use on HS rail links)
- High accelerating and braking performance
- Technically standardised vehicle fleet for electric traction
- High-class interior design comparable to standards for long-distance trains
- *Option: Public Transport Authority owned vehicle pool to lower barriers in procurement processes*



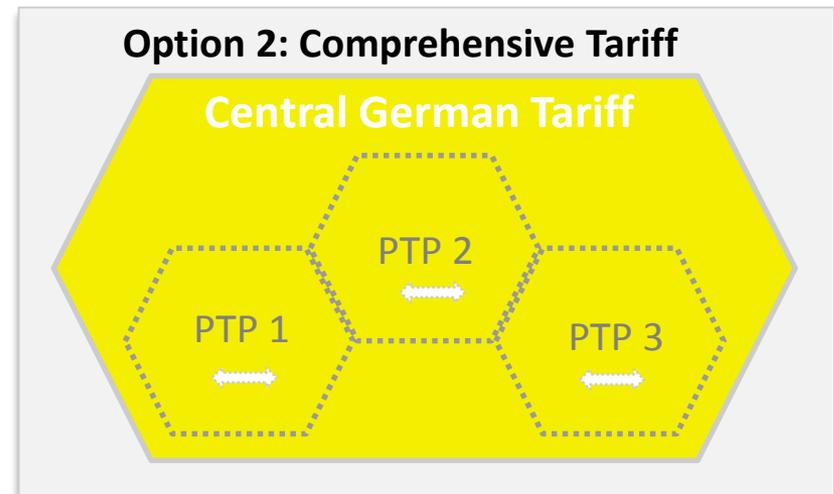
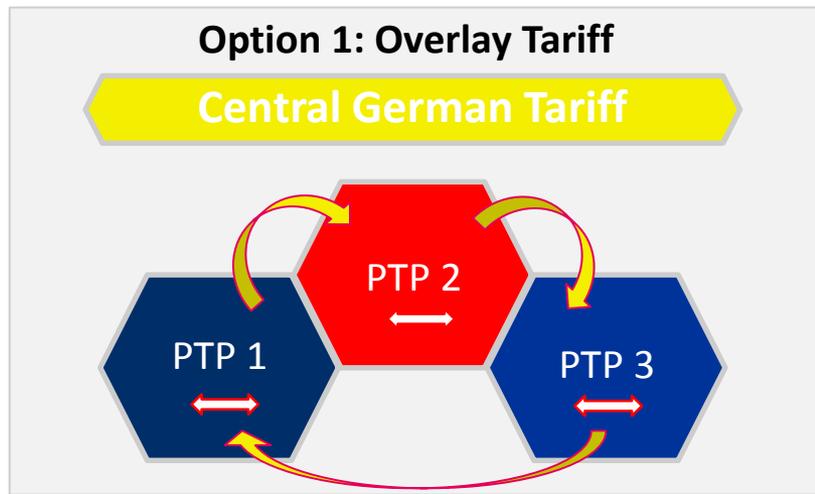
Source: [www.ausbt.com.au](http://www.ausbt.com.au) / [www.ellipsis.se](http://www.ellipsis.se)

# Passenger Rail Concept for Central Germany

## Module 3: *Central German Tariff / CGMR Ticket*

### Strategic Concept

- Integration of all modes of public transport (local, regional, long-distance)
- Central Germany wide tariff concept in public transport and/or “CGMR Ticket”



- “CGMR Ticket” → starting solution as nucleus of future “Central German Tariff”

# Passenger Rail Concept for Central Germany

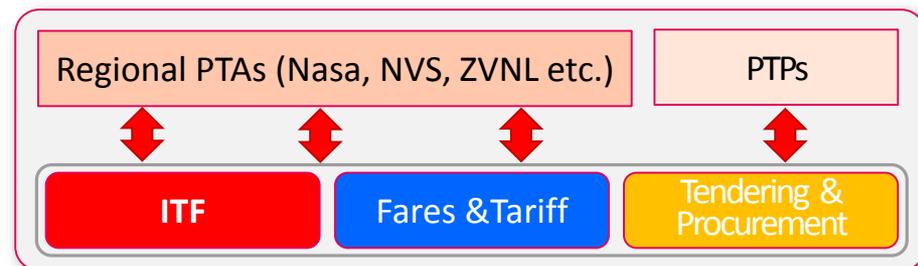
## Module 4: *Central German Cooperation*

### Strategic Concept

- CGMR wide organisation concept for coordinated planning, commissioning and financing of local, regional and long-distance rail (and road) based public transport  
→ more efficient spending of public funding

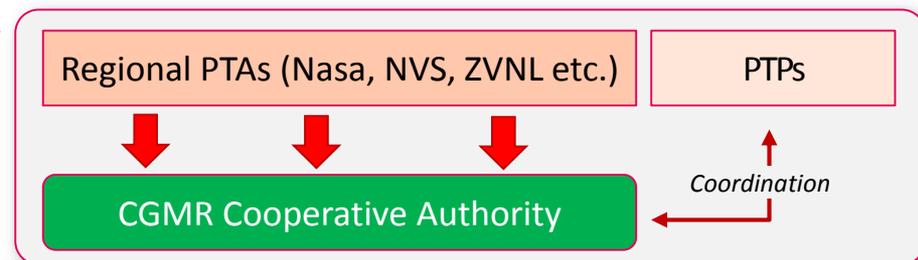
#### Option 1: „Special Task Competence Centres“

cooperation agreement of responsible bodies on the fulfillment of all operative tasks  
→ cross-regional Competence Centres



#### Option 2: „Cooperative Public Transport Authority“

more institutionalised cooperation replacing all existing bodies with a focus on *Central German Headway* and *Central German Tariff*



# Passenger Rail Concept for Central Germany

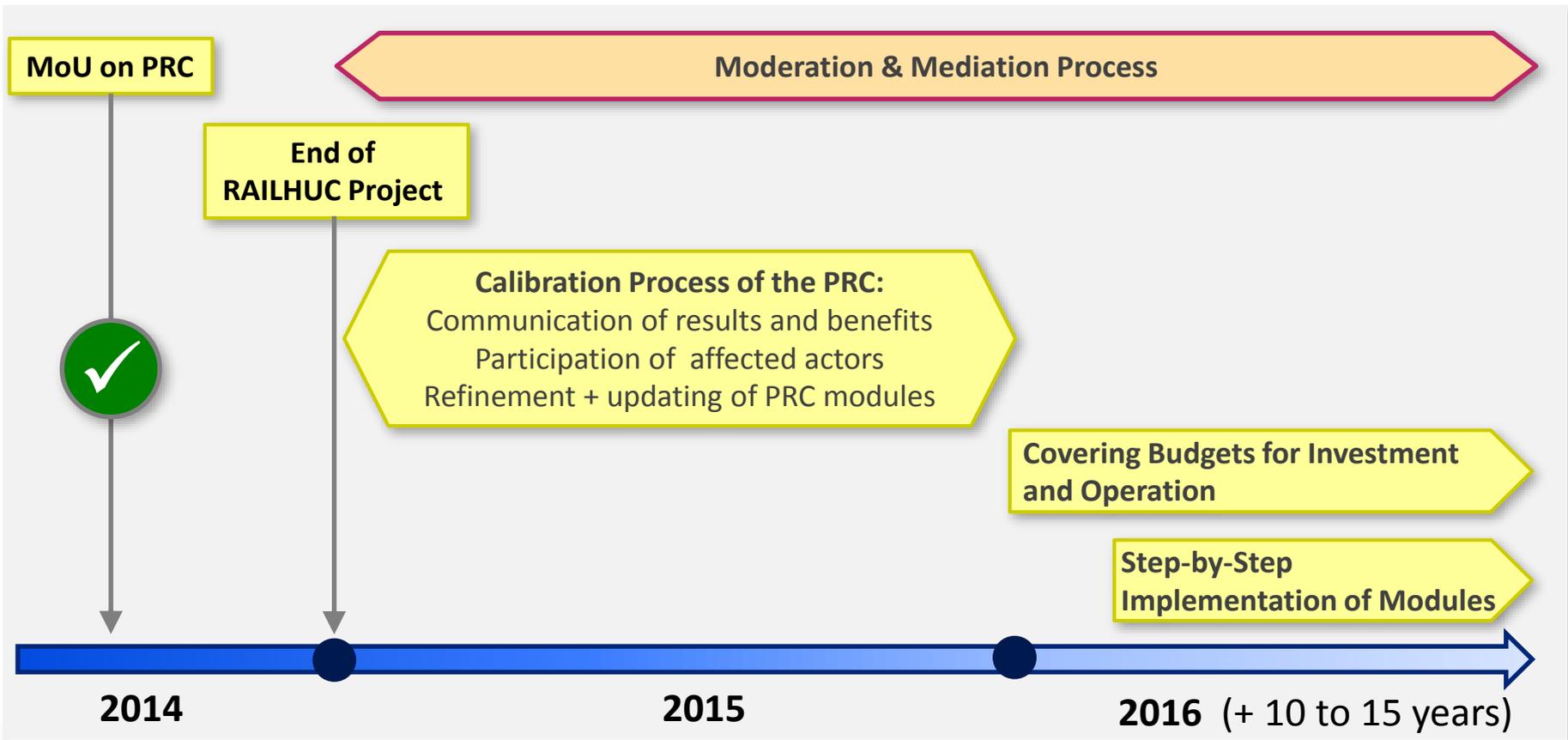
Main benefit for the CGMR resulting from the RAILHUC Project :

## Advanced, Strategic and Integrated Passenger Rail Concept

- Providing the basis for a **Sustainable Public Transport System**.
- Allowing a CGMR wide **Valuation of Benefits** resulting from the prospectively improved access to the national and transnational (HS) rail network.
- Enabling the CGMR to adopt a **Model Role** (4 modules) for other areas in Germany and Europe and to function as an **Impetus for an ITF-based „German National Headway“ Concept**.

# Passenger Rail Concept for Central Germany

Ongoing and future activities beyond the RAILHUC Project termination:





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***THANK YOU FOR YOUR KIND  
ATTENTION !***

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***Bologna, October 15<sup>th</sup>, 2014***