

Global Challenges for Cooperation in Transport & Mobility

Urban Transport and Mobility

Asia-Pacific Weeks

Berlin 12./13.09.2007

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FAV Vision

- Reliable partner for science, industry, SME, user and politics
- Centers networking of research institutes, companies, users and customers
- Initiates innovative projects, integrates partner and promotes system level cooperative programmes
- **Acquisition of almost 205 mio. Euro additional project money (2001 – 2004)**
- **8 % growth in employment (2001 – 2005)**

Challenges for the Transport System in and between Metropolitan Areas

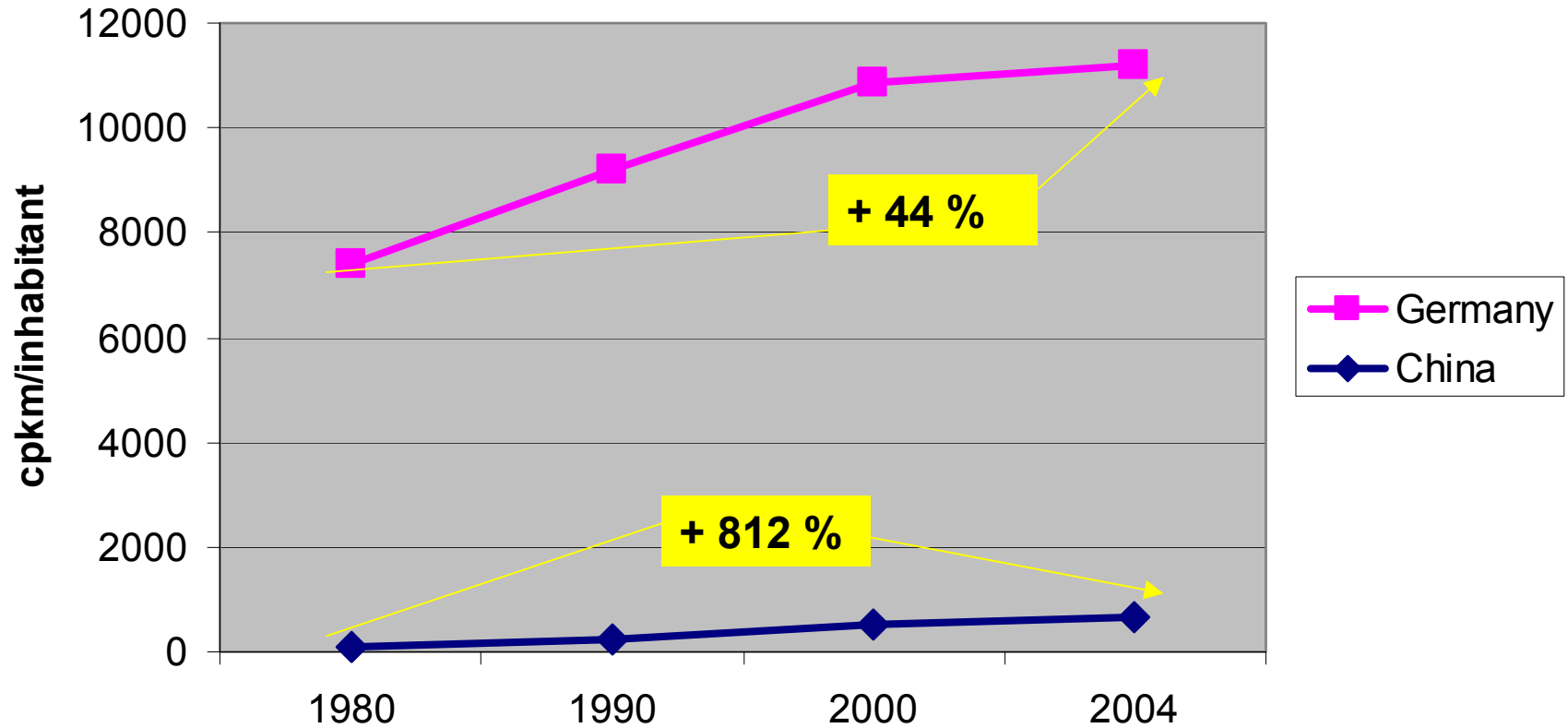


- Growing transport demands
- Climate Change => CO₂ issue
- Local emissions => pollutants, noise
- Safety and Security
- Trends in population: growing population vs. aging society



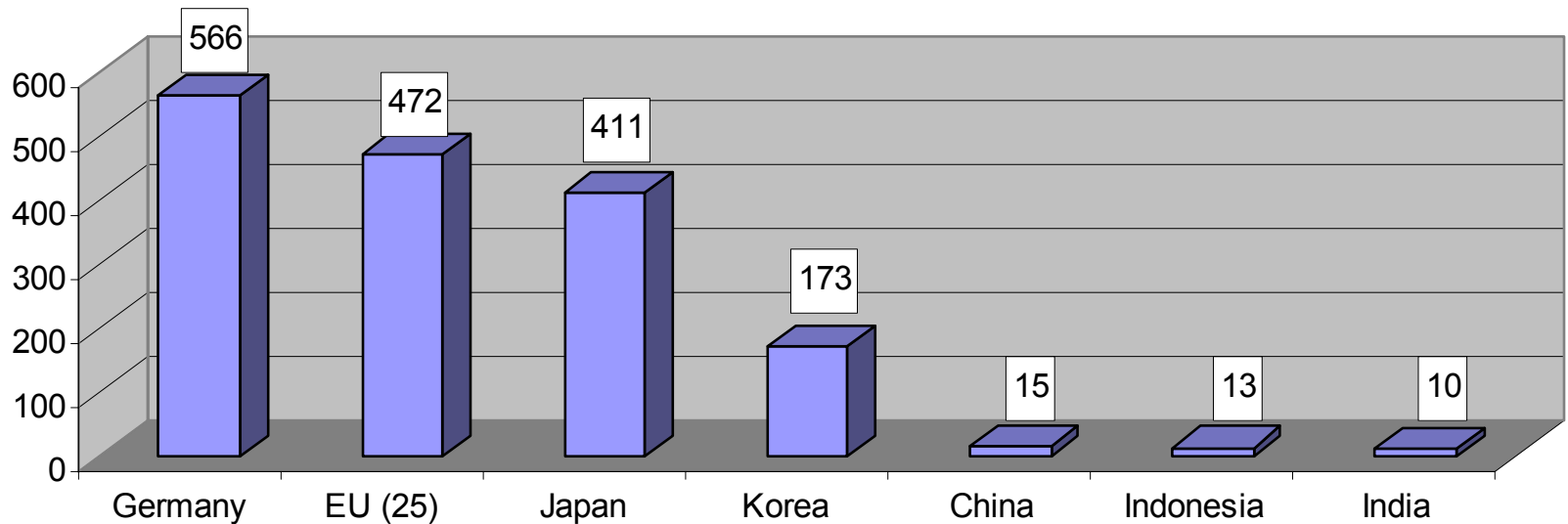
Challenge: Growing Transport Demands

car passenger kilometers (cpkm) per inhabitant



Challenge: Growing Transport Demands

Passenger cars/1000 inhabitants (2006)



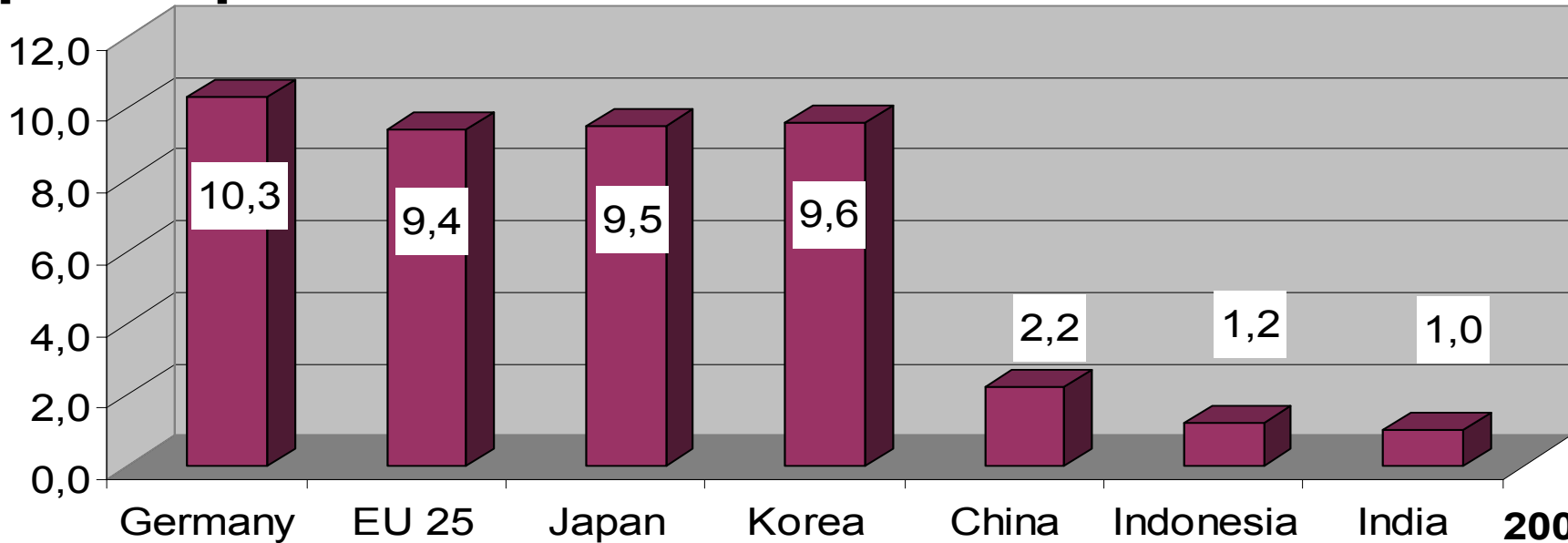
=> The expected growth is the challenge

- for the infrastructure
- for the environment

Challenge: Climate Change

CO₂ emission/inhabitant

CO₂ [t/inhabitant]

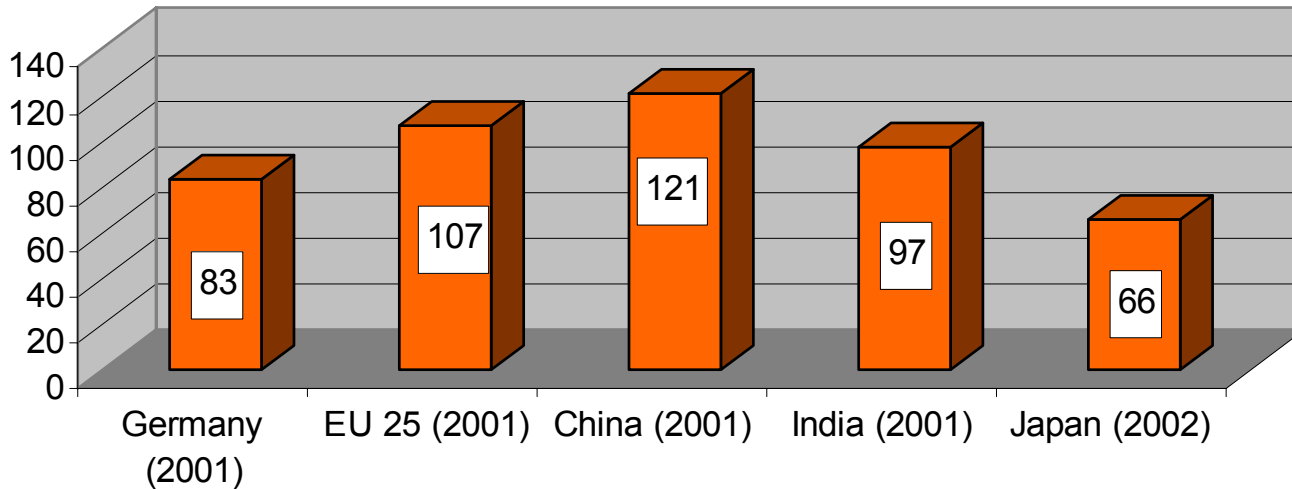


- EU target: - 20 % CO₂ 1990 – 2020
- APEC target: - 30 % CO₂ 1990 -2025
- IPCC demand: 60 – 80 % CO₂ till 2050; already 30 % until 2030 to limit global warming by 2°C up to 2050

=> How can we achieve a fair balance?

Safety

Fatalities/1 Million Inhabitants



Security

Vulnerability of public transport infrastructure



how to design open systems secure against terrorism attacks?

- preventive actions
- counter measures



- Promote the dialogue between the regions – scientists, company representatives and politicians
- Exchange best practise examples
- Learn lessons mutually from each other
- Identify the scope for cooperation, the common fields of interest
- Initiate common projects with added value for both sides



These are the goals for the conference

„Urban Transport and Mobility“

CoE - Centers of Excellence Strategy for the German Capital Region

19.300 WP in
 industry (incl. SME)
 and science

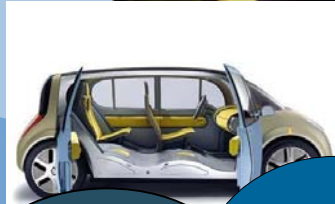
48.000 WP with
 important operators

150.000 WP in logistics/
 transport related services

WP: work places

Ind.: industry

Inst.: research institutes



19.100 WP
 Ind. 135
 Inst. 25

**CoE
 Automotive
 Engineering**

19.600 WP
 Ind. 115
 Inst. 33

**CoE
 Rail
 technology**

- mobility 2010
- sustainable mobility in high density areas
- intermodal transport telematics
- cross-border railway transport, particularly freight transport
- economical, ecological, safe air transport (BBI)

2.900 WP
 Ind. 45
 Inst. 15

**CoE
 Aeronautics &
 Aerospace**

5.060 WP
 Ind. 86
 Inst. 21

**CoE
 Transport
 Telematics,
 Intermodal
 Systems**

**Transport
 Logistics**

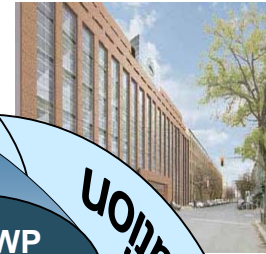
3.130 WP
 Ind. 40
 Inst. 11



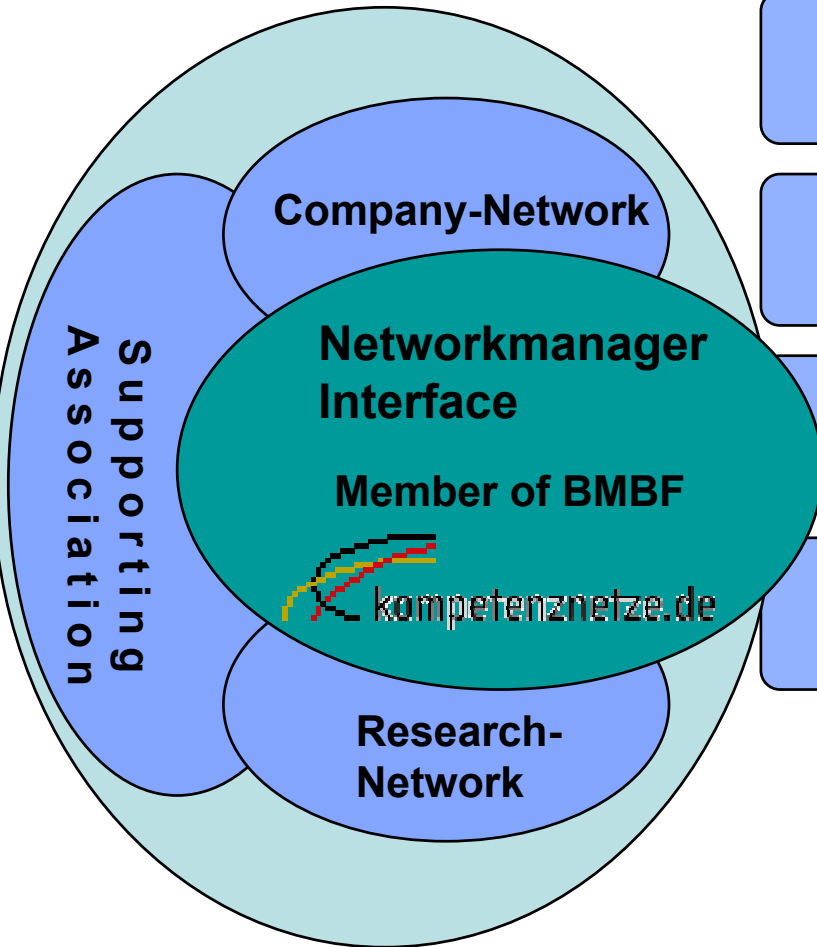
Research Network

Promotion Association

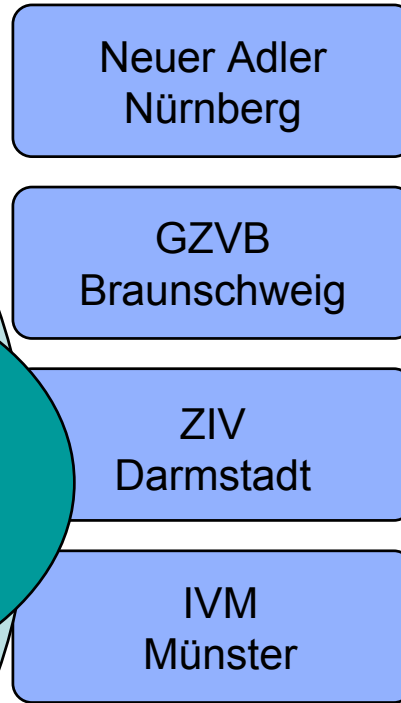
Company Network



regional



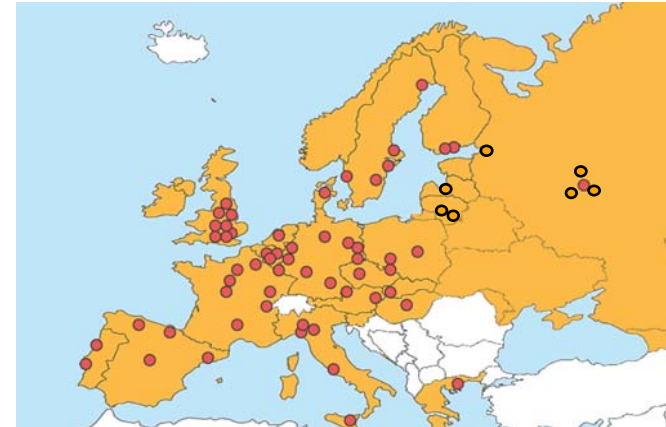
national



international

Leeds (ITS); **Madrid** (UPM; DATSI); **Lissabon** (IST; INETI); **Rotterdam** (OBR); **Université de Valenciennes** (UVHC); **Hong Kong** University (HKUST); **Zürich** (ETH); **Beijing** (BIT); **Washington DC** (Eno); **Cambridge, MA** US (MIT-ITS); **Narwick** (NIT); **Athen** (NTUA); **Shanghai** (Tongji Universität); **Prag** (CTU); **Ulanbator** (Mongolian Government Implementing Agency); **Wien** (BIT); **Zilina** (CETRA), **Tokyo** (ITPS)
Projektpartner: OGM **Brüssel**; CEMR/ELANET **Brüssel**; CULMINATUM **Helsinki**; CERTU **Lyon**; ISIS **Rom**; Erasmus University **Rotterdam**; NEA **Rijswijk**; TNO **Delft**; TU **Wien**; City Hall **Gdynia**; Regia Autonoma de Transport **Bucuresti**; INECO **Madrid**, SOCINTEC **Madrid**; **Barcelona** (FPC-UPC); **Moskau** (MIIT); **EURNEX** (60 Institute)

more than 100 research institutes
 more than 400 enterprises
 ca. 48.000 jobs in
 producing enterprises



Berlin as a Testbed for New Propulsion Systems and Clean Energy Fuels

- Examples -

natural gas:

TUT (taxis and driving school cars)

TELLUS (vehicles for inner-city
freight distribution)

network of CNG filling stations



Hydrogen:

- CEP (GH₂ and LH₂ powered cars and public transport buses; filling station)
- Hydrogen Competence Center Berlin
=> predecessor of *HyFleet: CUTE plus* (busses for public transport and filling station)]

Cost Efficient and User-friendly Rail Systems - Example MODTRAIN Project

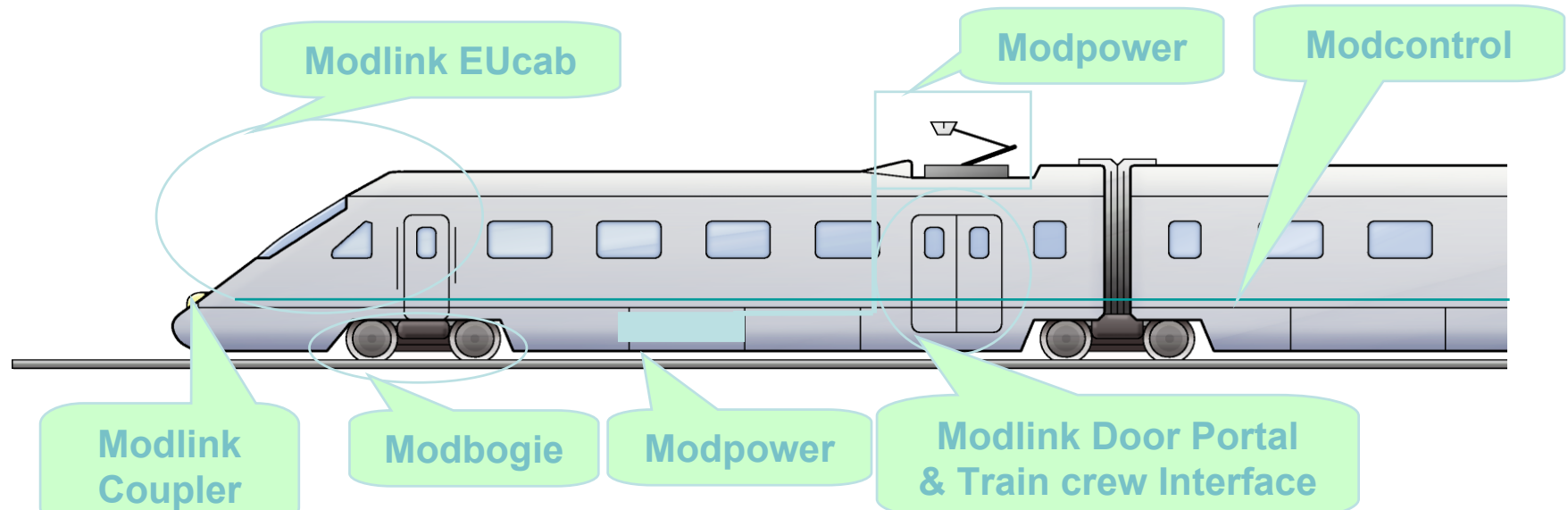
MODTRAIN stands for “Innovative Modular Vehicle Concepts for an Integrated European Railway System”

European Integrated Project to develop, specify and test the modules and interfaces for the next generation of intercity trains and universal locomotives in Europe

Started on 1 February 2004 with a total project duration of 4 years, budget: 31 Mio. Euro



The biggest sub project MODLINK deals with the modular man-machine-interfaces, lead by TSB/FAV and Bombardier



European Rail Research Network of Excellence - Strategic Objectives

- ✓ to integrate the fragmented European Rail research landscape to provide European leadership
- ✓ to promote the railway contribution to sustainable transport policy
- ✓ to improve the competitiveness and economic stability of the Railway sector and industry

600 Researchers / 72 Institutes

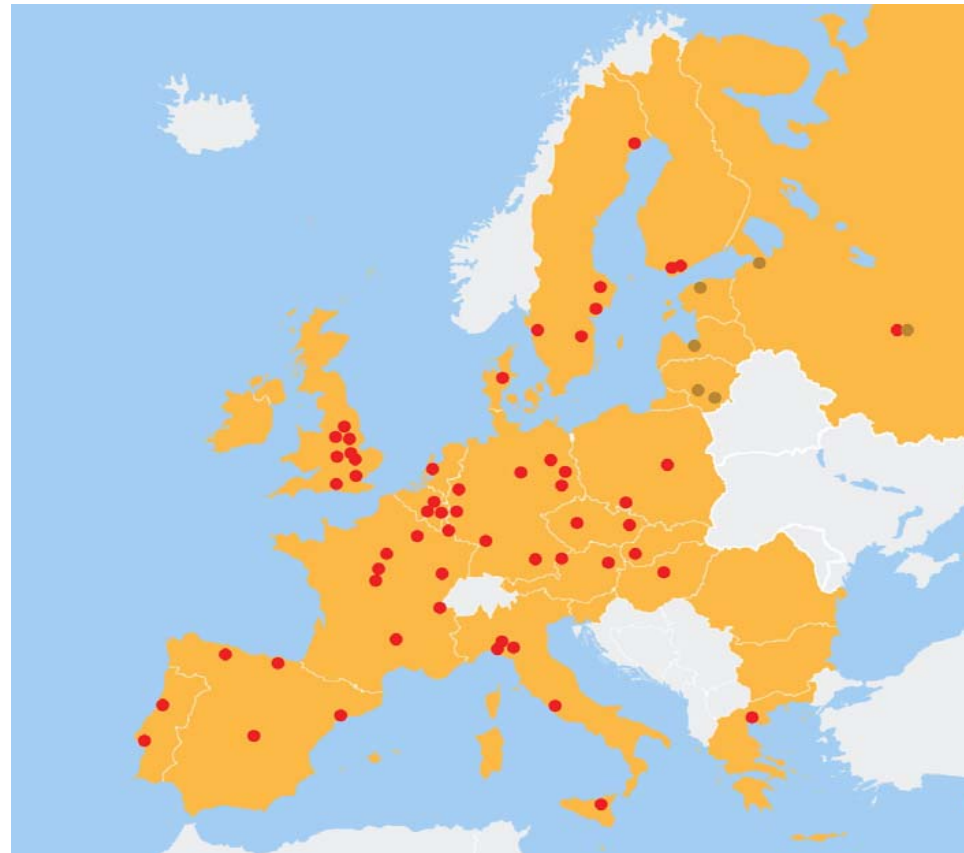
6 Mio. € grant for integration

Durable business case

Coordinator TSB-FAV Berlin

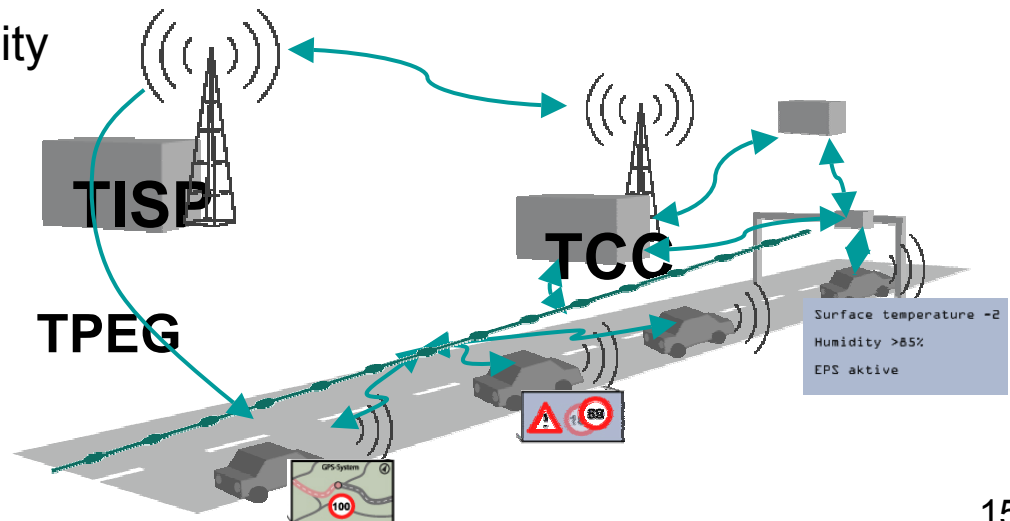
Duration:

01.01.2004 – 31.12.2007



- Clean and silent traffic
- Improved traffic safety
- Enhanced efficiency and flexibility of public transport
- Promotion of railways for long distance inter-urban transport
- Better use of infrastructure capacities by transport telematics management
- Transport & energy – clean fuels

- Integrated approach Berlin Intermodal to achieve the most progressive traffic management in Europe with the components
 - VMZ/VKRZ: Traffic management center and traffic control center
 - COOPERS: Improved road safety through new “car-to-infrastructure” communication link
 - IQ Mobility: Integrated quality management to improve the traffic flow



Urban Transport & Mobility

12. September 2007

9:00 – 12:30 hrs.
Key note speeches

13:30 – 18:00 hrs.
Workshop Sustainability
Transport & Mobility
(TSB-FAV)

13:30 – 18:00 hrs.
Workshop Accessibility
for all: easy going
(TU Berlin)

13. September 2007

9:30 – 16:15 hrs.
Workshop Potentials in
Telematics Cooperation
between Asia and
Europe
(Telematics Pro)

13:30 – 17:45 hrs.
Workshop Future
development in
aeronautics
(BBAA)