



INTERNATIONAL UNION  
OF RAILWAYS

*unity, solidarity, universality*

## UIC EURO ASIAN ACTIVITY 2011~2012

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& Coordination Asia-Oceania

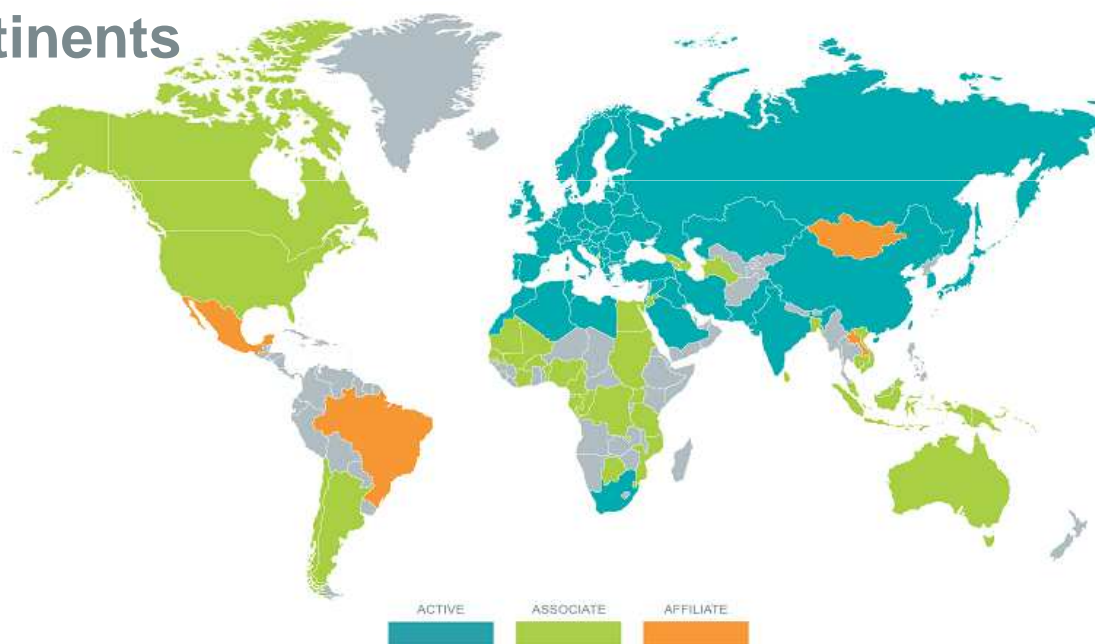
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# UIC: the International Union of Railways

- Created in 1922, NGO Ecosoc
- 200 members on all continents

- Members are:

- Railways
- Rail operators
- Infrastructure managers
- Railway service providers
- Public transport companies

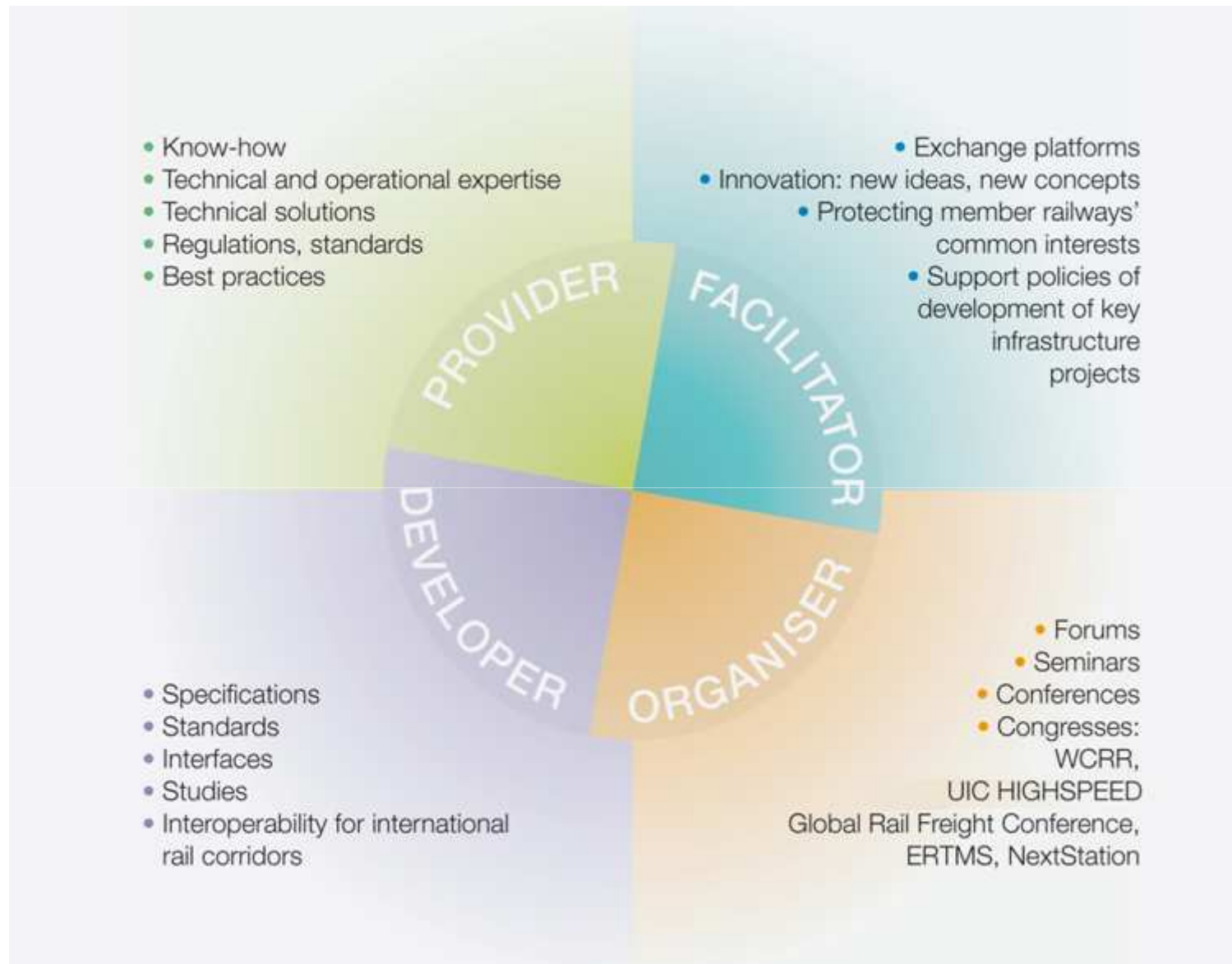


- Public or private railway companies

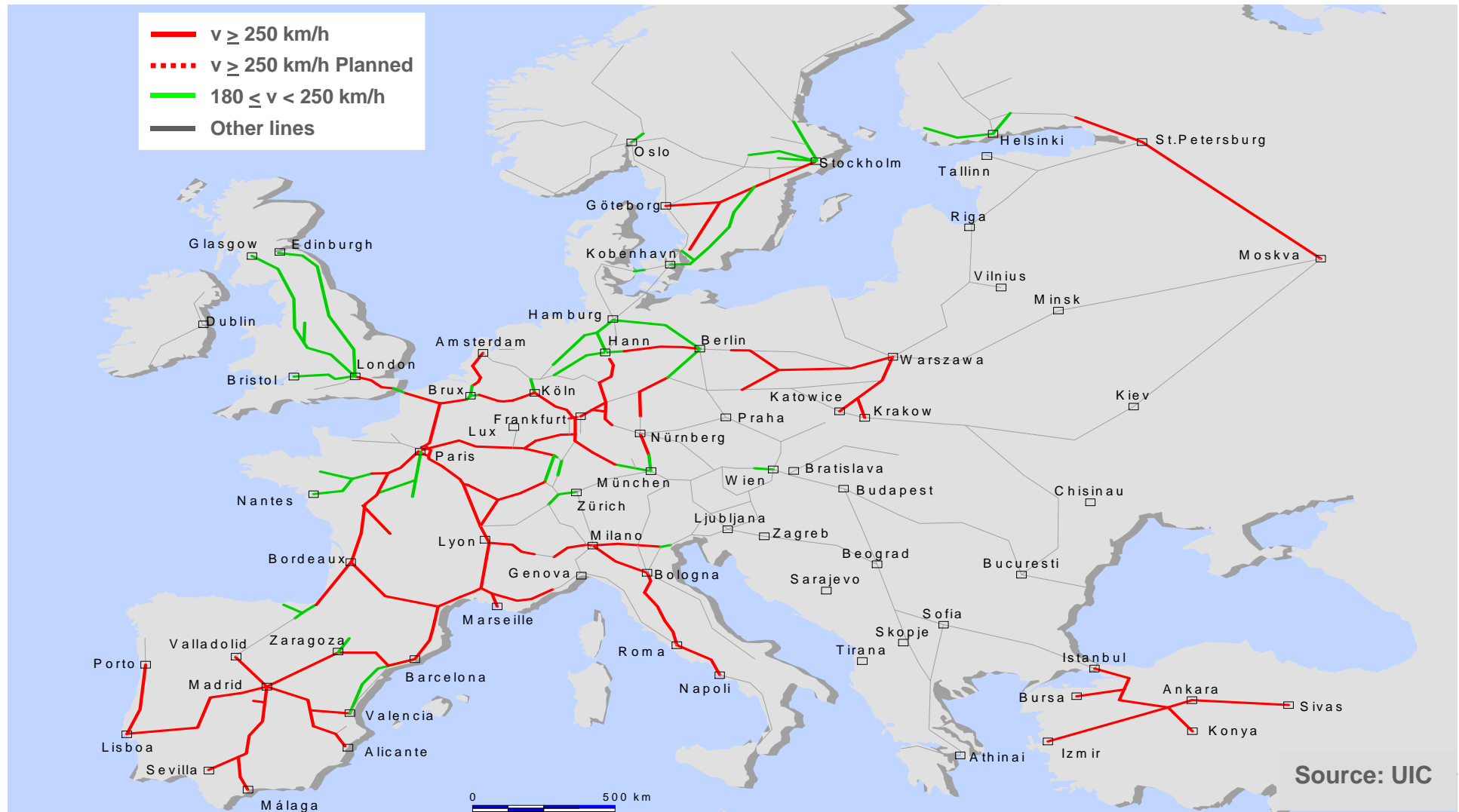
# UIC Mission

**Promoting the development of rail transport  
at world level,  
in order to meet challenges  
of mobility and sustainable development**

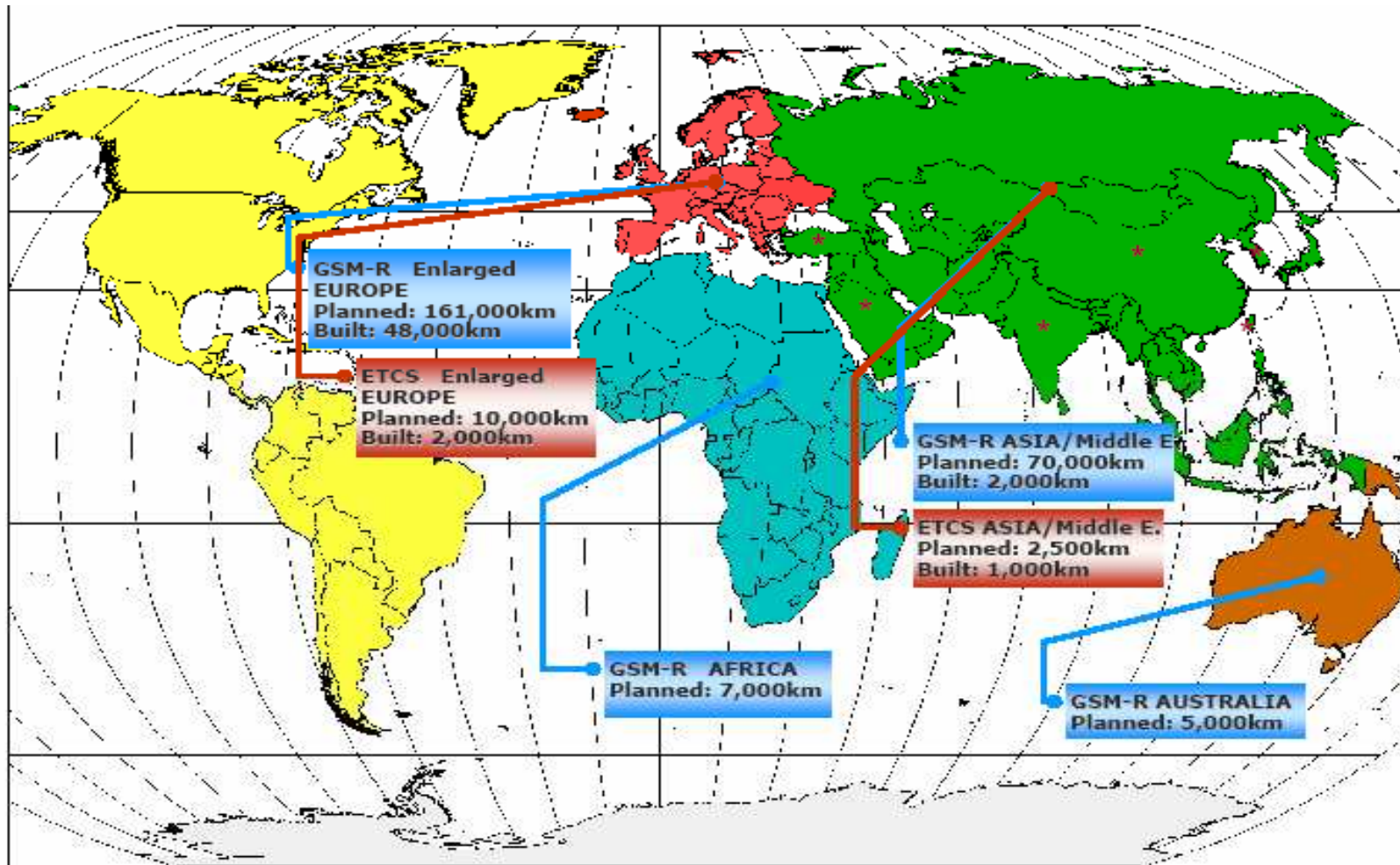
# UIC's role



# Contribution to European Networks and Masterplans - European high speed network 2020



# Worldwide ETCS and GSM-R Implementations / Projects



# Synopsis and International Statistics (public)

- NETWORK
- TRANSPORT STOCK
- STAFF
- OPERATION
- PASSENGER TRAFFIC
- FREIGHT TRAFFIC
- FINANCIAL RESULTS
- ENERGY
- ACCIDENTS
- FERRIES
- HIGH-SPEED
- FIVE YEARLY TABLES



### Passenger-kilometres (billions)

	2006	2007	2008	2009	2010	2011	Δ%
Europe *	642,1	642,6	659,7	624,1	611,9	625,5	0,02
Africa	61,5	61,6	62,0	62,2	62,3	62,6	0,004
America	12,8	13,3	14,0	13,5	12,0	12,2	0,02
Asia and Oceania	1 646,0	1 788,6	1 950,9	2 012,0	2 079,3	2 114,1	0,02
WORLD <i>estimates</i>	2 362,4	2 506,1	2 686,6	2 711,9	2 765,4	2 814,4	0,02

### Tonne-kilometres (billions)

	2006	2007	2008	2009	2010	2011	Δ%
Europe *	2 646,6	2 813,6	3 103,0	2 411,4	2 603,8	2 774,9	0,07
Africa	142,2	139,2	138,4	137,1	139,2	138,4	-0,01
America	3 519,5	3 540,2	3 513,8	2 973,2	3 076,1	3 132,5	0,02
Asia and Oceania	2 872,6	3 095,9	3 452,7	3 466,2	3 462,0	3 599,4	0,04
WORLD <i>estimates</i>	9 180,9	9 588,9	10 207,9	8 987,9	9 281,2	9 645,2	0,04

### Length of lines (kilometres)

	2006	2007	2008	2009	2010	2011	Δ%
Europe *	349 457,9	348 788,4	348 999,8	353 746,9	370 700,3	355 459,8	-0,04
Africa	52 159,0	52 400,0	52 482,0	52 299,0	50 274,5	52 245,1	0,04
America	385 272,2	389 862,8	386 772,8	383 079,2	375 773,6	353 619,0	-0,1
Asia and Oceania	221 788,0	222 644,5	221 827,0	224 151,0	224 204,9	229 847,4	0,03
WORLD <i>estimates</i>	1 008 677,1	1 013 276,1	1 010 081,6	1 013 276,1	1 020 953,2	991 171,4	-0,03

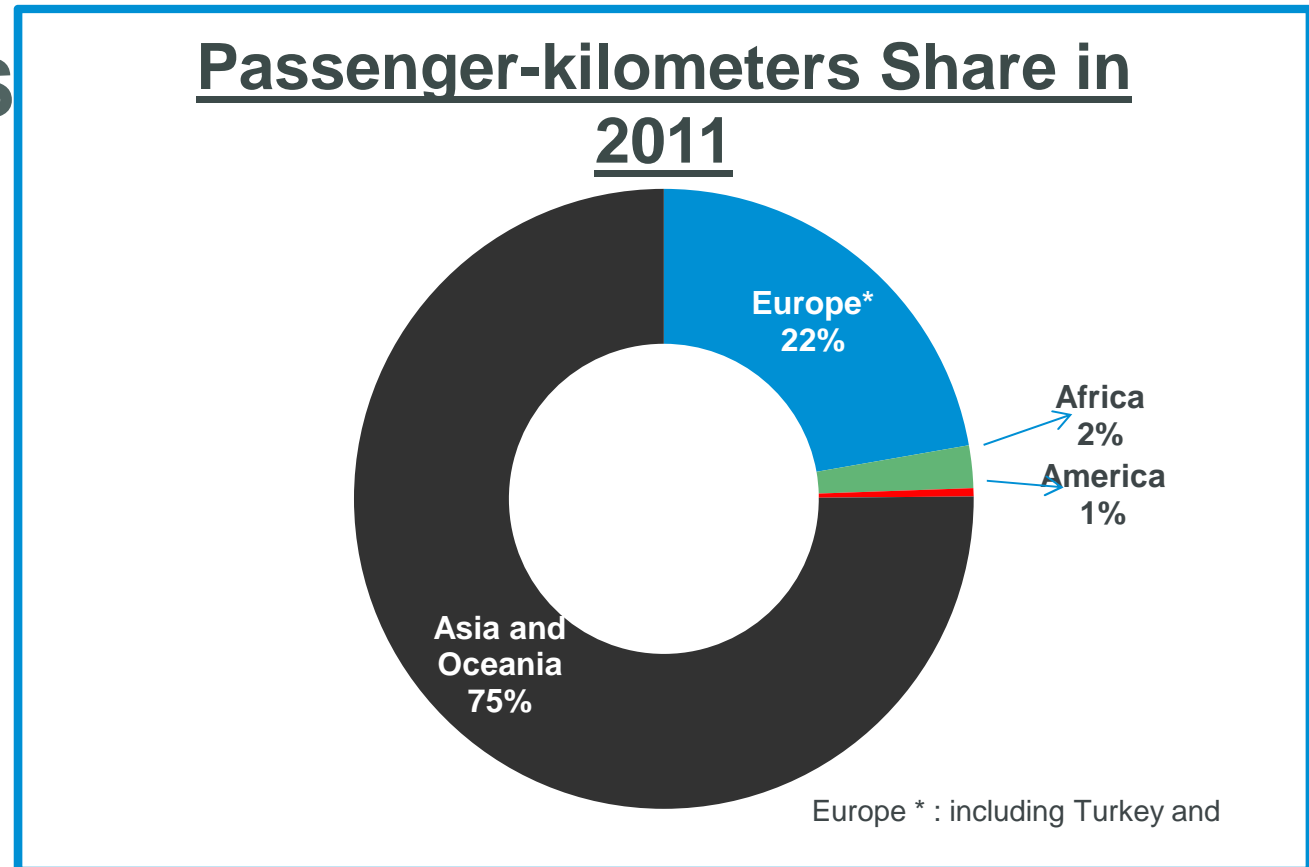
\* including Turkey and the Russian Federation

**First trends 2011: . SLOWING DOWN RECOVERY IN PASSENGERS**  
(half increase compared to 2010 jump to 3.5%)  
**. CONTINUING FREIGHT RECOVERY AS 2010**  
(continuing 2010 recovery trend, but still under 2008)

**THE ECONOMY IS STILL RECOVERING BUT NOT AT ITS BEST**

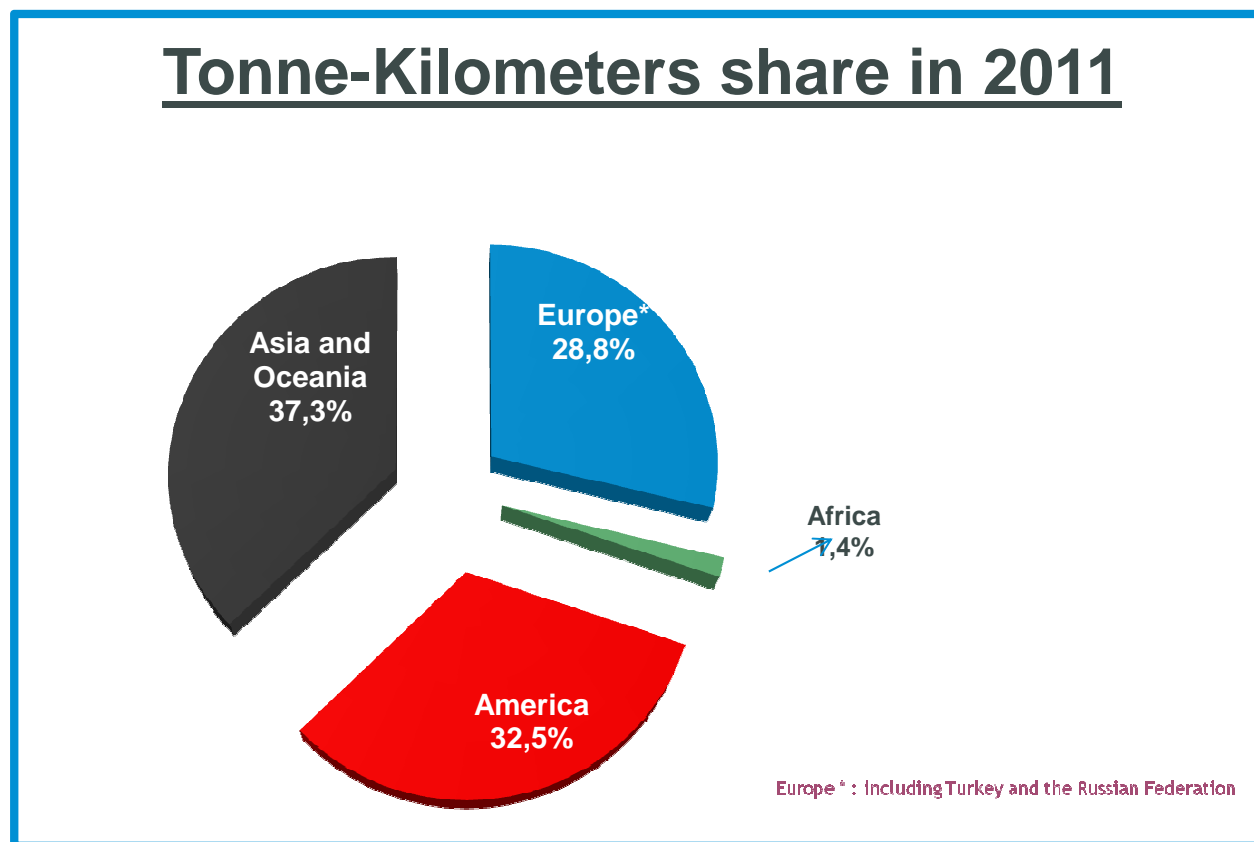


# PASSENGERS



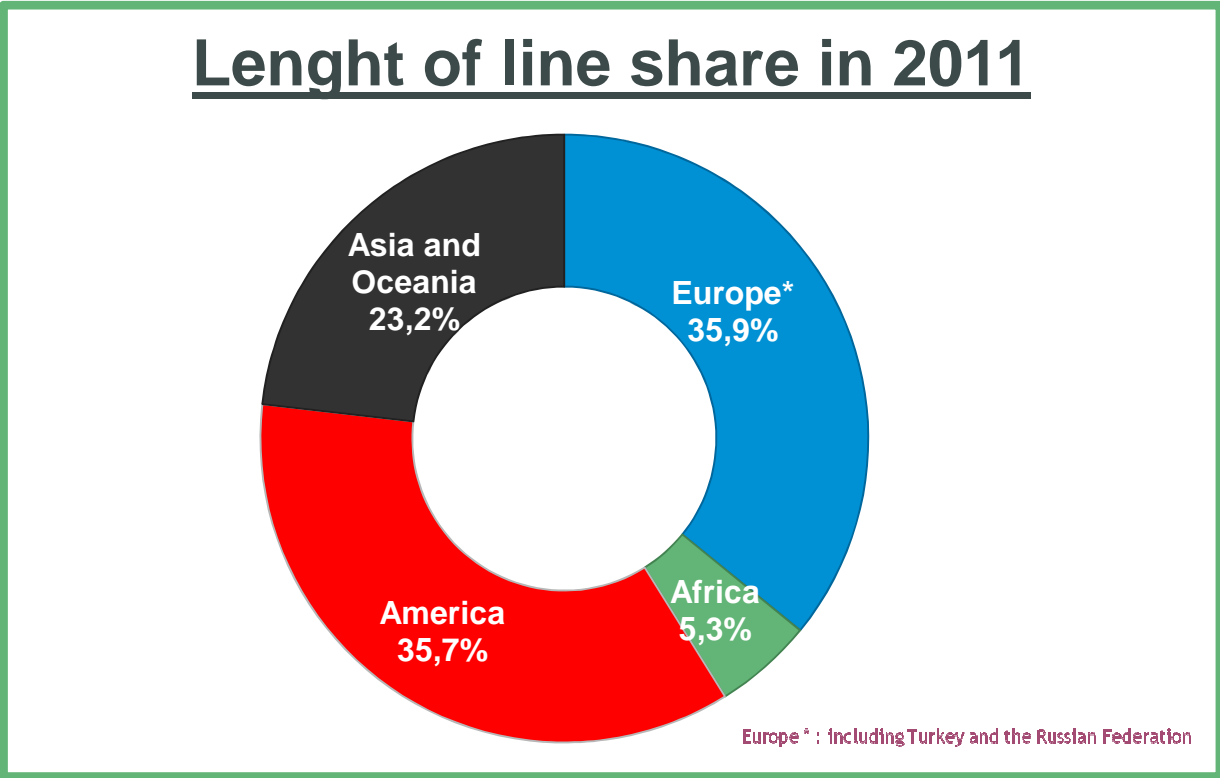
- . Passengers activity has never drawn back but slowed down from +7% until 2008 to **hardly up to 3 % until today**
- . **Far and Central Asia** are the main actors (India and China)
- . **But Europe and Russia are also participating** to this trend, at a slower pace

# FREIGHT TRENDS



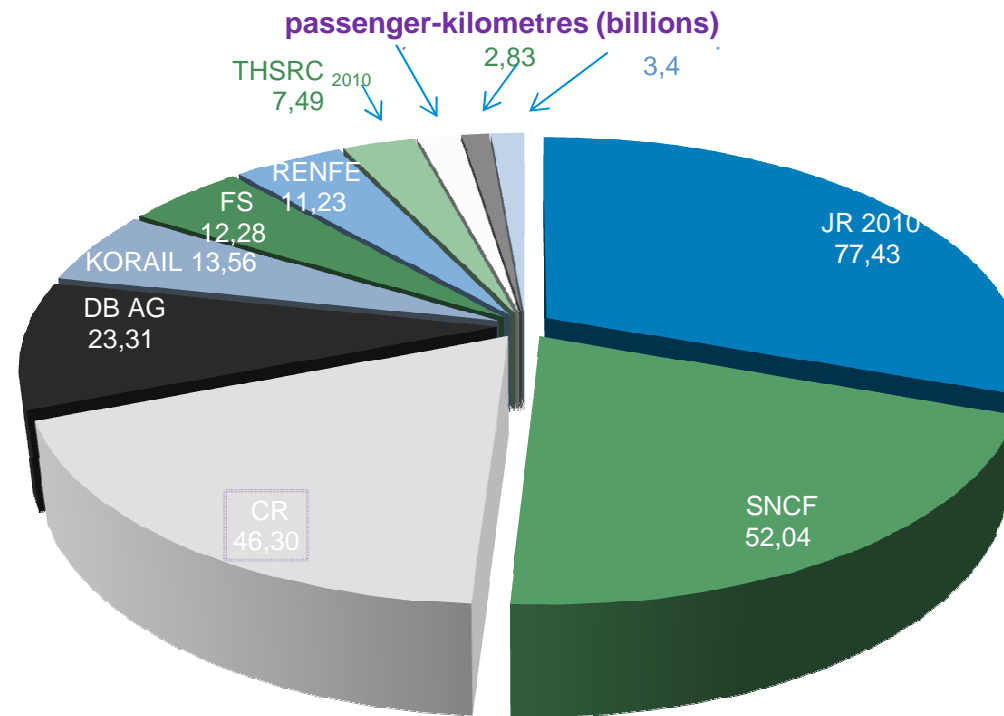
- . **Europe is gaining Freight traffic** (and market share), esp. Ukraine (>+10%)
- . Leader is **RUSSIA**: 1/4 of whole World Freight traffic, +8% in 2010, **+5,7% in 2011**
- . Confirmed positive trend for **Central Asia** (includ. **Kazakhstan + 4.5%**, **Mongolia + 11%**), then **other European**, like in 2010
- . **REST OF ASIA** also increasing, including **70 % from China + 4.5%** (after sagging in 2010)
- . But **SAG in TURKEY** after high increase 2010.

# Infrastructure



- . Length of lines remain stable **but**
- . Asia is increasing due to China new HS among others
- . Europe is closing down some lines

## High Speed Traffic 2011



Other Europe : CD, CP, NS, SNCB, SZ, TCDD, VR.

### **FOR THE FIRST TIME in 2011**

- . CHINA is 3rd rank in HS traffic
- . More HS Passengers traffic in Asia than in Europe

# ANSWERING TO RAIL CHALLENGES & STRATEGY TOWARDS 2050

**Advantages** for a huge modal **shift to rail** thanks to:

- . safety, green, high speed and urban rail systems, longer-distance trips,

**Becoming a very different railway:**

- . Reliable, affordable and attractive services , seamless and safe mobility network.
- . High quality services will stimulate the popular support that can help underpin public investment.
- . An increasing inter-modal environment, integrated transport system, with rail as its backbone,
- . Cost transparency in more competitive economies.

# HOW TO

Achieving substantial market share by

. **Attractiveness** : Value for Money, Capacity, Consistency, Connectivity

- **Sustainable development** – Environment & Energy, Optimised Life Cycle Assessment, Silence, 0 CO<sup>2</sup>-Nox-PM10
- **Safety and security** – Performance, People, Certified Process
- **Resilience** – High reliability (R&D), degraded mode mangmt
- **Leadership** – within the sector, of the sector as a mode and by Europe as a region in the global context (barriers, education)
- **Funding** – Securing Investment, ...

The goals for rail of the EU Commission's 2011 Transport White Paper:

*By 2050 rail should substantially expand its modal share over medium and long distances for both passenger and freight, based on a dense network connected to all core airports and sea-ports, a major expansion of the high-speed network, and the deployment of ERTMS and of a European multimodal information, management and payment system.*

. Current **EUROPE: 6% share of the passenger market , only around 16%** of the inland freight market (road transport 70% ) , 8,000 km HS lines for 100 million HS pass/y

An economic contributor: 1 M staff, 10 000's companies-€ 80 Billion industry

. Growth in transport demand by 2050:

=> **freight > + 80% and passenger > + 50%, € 1.5 trillion in infrastructure (-> 2030)**

=> Major urban centers **free of CO<sup>2</sup> emission and -70% GHG**

=> + 50% up to annual **€ 200 billion/y congestion**

=> Increase in freight moved by rail **x8 and in passenger travel x 12**, HS Rail becoming credible up to 4 hours travel time, 1000 km travel distance.

# EUROPE & ASIA

- > The Asian railway system faces various **internal challenges**
- > The Euro-Asian routes are hampered by :
  - political challenges (liberalization, opening of the markets),**
  - logistical,**
  - management and infrastructure challenges :**
    - . Track standards,
    - . Missing links,
    - . Inland terminal structures and lack of well-functioning intermodal systems
- > **Perception of security** and **security standards** are a fundamental issue until 2025.



# TECHNICAL COOPERATIONS IN EURO-ASIA RAIL TRANSPORT LINK

## I. Cooperation in the field of **transport policy**.

- Scientific technical and economic **information** on the basis of modern information technologies, shared know-how and intelligence;
- **Statistics on container shipping** by rail in the foreign traffic using the Trans-Siberian main line, benchmarking other modes;
- Mutual participation as guests at corresponding **meetings** of the higher directing bodies of partner organizations.

## II. Cooperation in the field of **international transport corridor (ITC)**

### 1. **Based on the ITC development group of expert**

- Freight transportation as part of **solid container and contrailer trains** in Eurasian traffic collaboratively
- Alleviating **crossing of borders**
- Making up **competitive through rates**
- Cooperation regarding UIC project implementation in the sphere of development of Eurasian transport **connections**

### 2. **Based on UIC security platform**

- Increasing Security on international freight corridor

### **III. International cooperation in the sphere of innovations.**

Ex: Electronic documents & “Electronic train” project realization.

### **IV. Cooperation in the sphere of international education.**

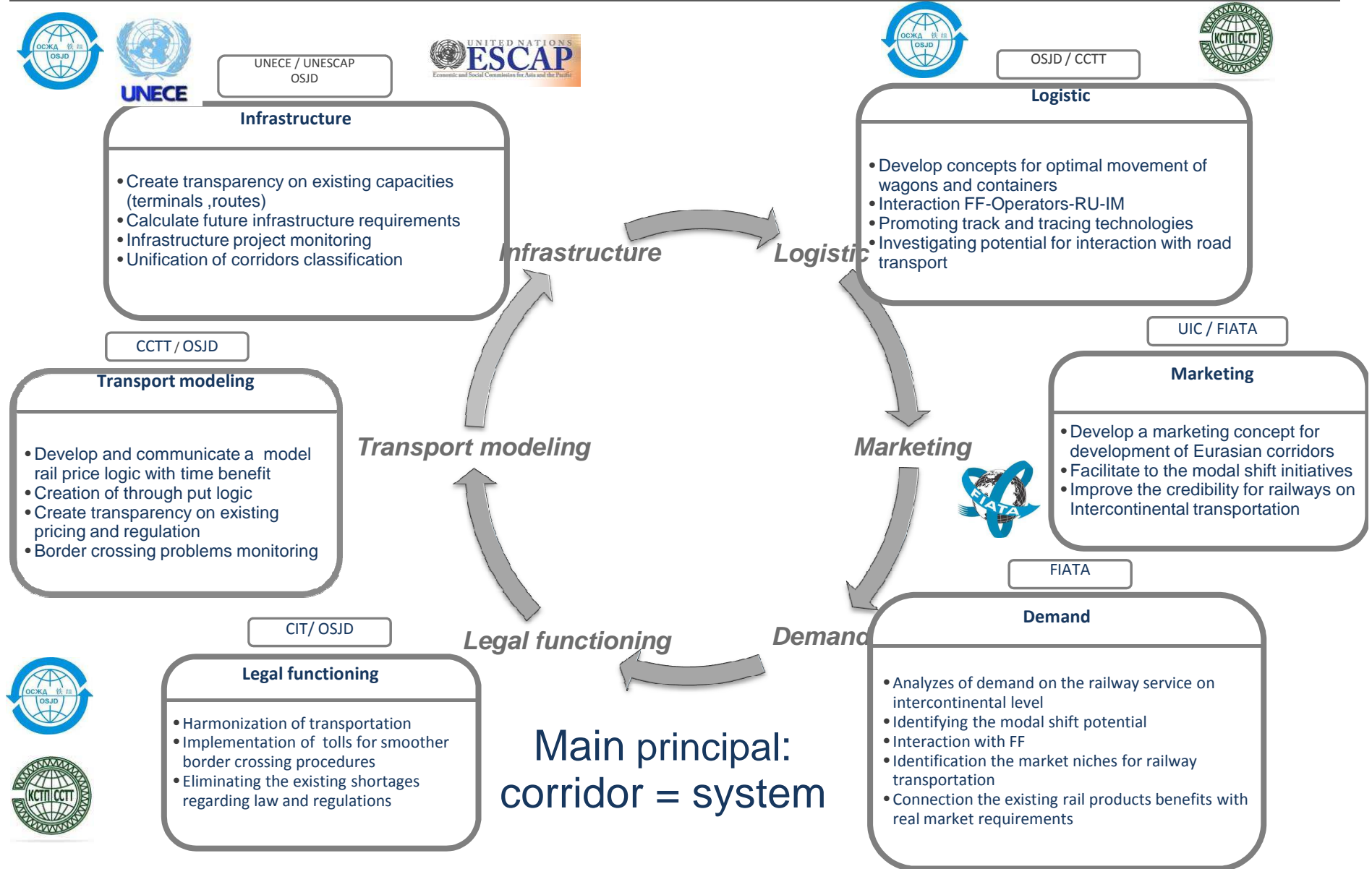
Development of educational programs and training of specialists

# 2010-2012 INTERNATIONAL COOPERATION FOR EURO-ASIAN CORRIDORS

- . An intense program of cooperation initiated and re-activated by UIC with the main railways pro, financial or inter-governmental bodies related to EATL



# Starting an Institutional approach to the coherent development of corridors



## Current technical work to develop EATL 2011~2012 (1) with institutions AND members

- Standardised **Automatic Gauges Changeover systems 1435/1520** and further certification of freight wagons on 1435/ 1520
- International Corridor mapping on infrastructure and rolling-stock requirements (ERIM on European side) in order to improve **interoperability** and **safety**
- **Boarder crossing issues**
- Harmonization of GNG (OSJD) and NHM (UIC)
- Cooperation on DIUM (uniform distance table)
- Harmonization of the exchange of wagons (legal aspects)
- Implementation of CIM/SMGS Unified Consignment Note

## Current technical work to develop EATL 2011~2012 (2) with institutions AND members

- Updating of joint **OSJD/UIC leaflets**
- **Coding** and Information
- **Financing** and inter-accounting
  
- **Terminology**: development of Rail Glossaries in many languages for common understanding (Russian as a new language since 2011)
  
- **Security** on corridors: cooperating with NATO TG-IST and involving CCTT into Steering Committee of UIC Security Platform, representing the interests of the concerned railways, in addition to the representatives of the UIC regions.

# Focusing the status of AGCS Working Group

- Collection and analysis of relevant data and experience about cross boarder railways traffic in a view of application of AGCS
- Finding and recommendations on the availability of application of AGCS
- Share of best practices on application of AGCS
- Analysis of legal aspects and admission procedure for rolling stock with AGCS including certification
- Reporting on the results of research and analyses for examination by executive bodies of UIC and OSJD

Tender documents will be prepared by UIC and OSJD members. Consultant will be jointly selected after the call for the tender

**MORE CONCERNED MEMBERS ARE INVITED TO JOIN as the aim is to set an international standard.**



# Status of activity on Euro-Asian Landbridge Mapping (RNE+ERTMS+PAN+OSJD corridors)

## What is in common

- Type of mapping activity,
- GIS technology and (general) geographical scale
- Permanent line segmentation,
- Linear line referencing, dynamic line segmentation

## What is different

- database structures
- data contents
- **OSJD-UIC cooperation could focus on:**
  - . International data exchange and dissemination.
  - . Harmonized description of lines
  - . Terminal mapping /descriptions

## What can be improved

**INVOLVING PARTIES and FUNDS, especially from Asian part**

# UIC Sustainability Unit - Introduction

- > **Cooperation with international organizations to advance sustainable transport and railways**

UIC was very active in the Rio+20, is represented at the UNFCCC COPs, participates in UNECE Adaptation Expert Group and works with UNEP

- > **Publications and research on various sustainability and environment topics**

Research topics include Noise, Energy Efficiency, Emissions, Climate Change Adaptation, Carbon Footprint of High Speed Rail and many more

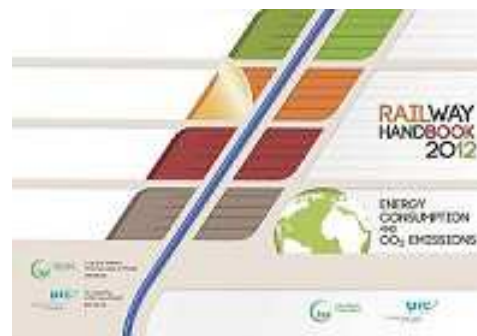
- > **Conferences, events and meetings**

To share best practice and find solutions to common problems

- > **Information, reports, meetings – [www.uic.org/environment](http://www.uic.org/environment)**

# Highlights

- UIC Sustainability Conference: Venice, 25-27 October 2012
- UIC at Rio+20
- Data Handbook Report with International Energy Agency
- Global Sustainability Report



■ ■ ■ Thank you for your kind attention

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