

64<sup>th</sup> Session of the UNECE

# New challenges of infrastructure development in UNECE region-Integrated approach towards infrastructure planning

United Nations Palace, Geneva, 29/03/2011

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## Major activities in transport infrastructure planning

### **The concepts of integrated transport infrastructure networks in Europe and Asia:**

#### 1.The UN coverage:

- Multilateral Agreements (AGR, AGN, AGC and AGTC),
- TEM/TER joint project of the UNECE,
- Asian Highway network,
- Trans-Asian Railway network,
- Euro-Asian Transport Links (EATL) of the UNECE, and
- Special Programme for the Economies of Central Asia (SPECA)

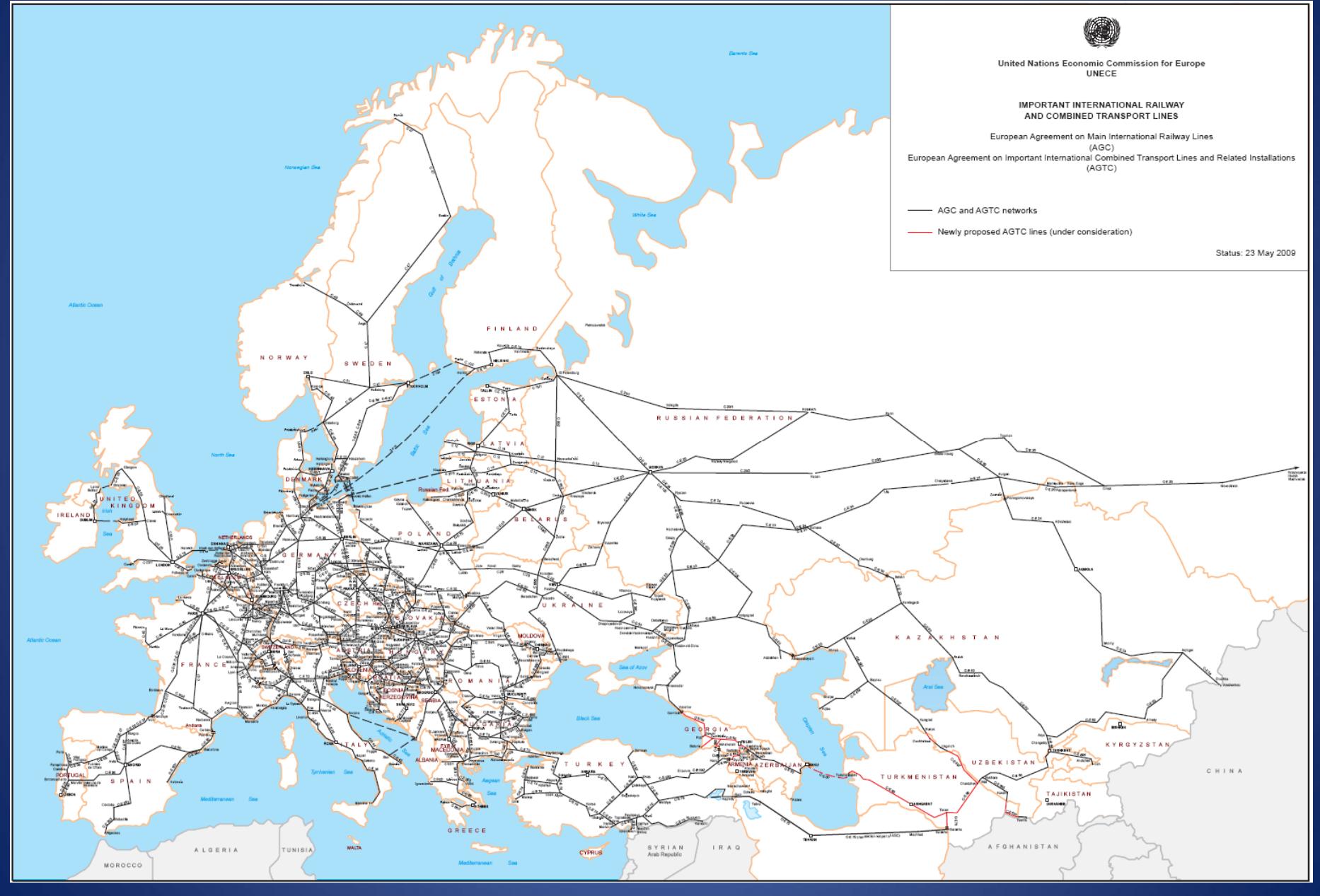
#### 2.The other international bodies:

- Trans-European Transport Network (TEN-T),
- Pan-European Corridors and Areas,
- Transport Infrastructure Needs Assessment (TINA),
- Transport Corridor Europe-Caucasus-Asia (TRACECA), and
- Euro-Asian rail transport corridors of OSJD

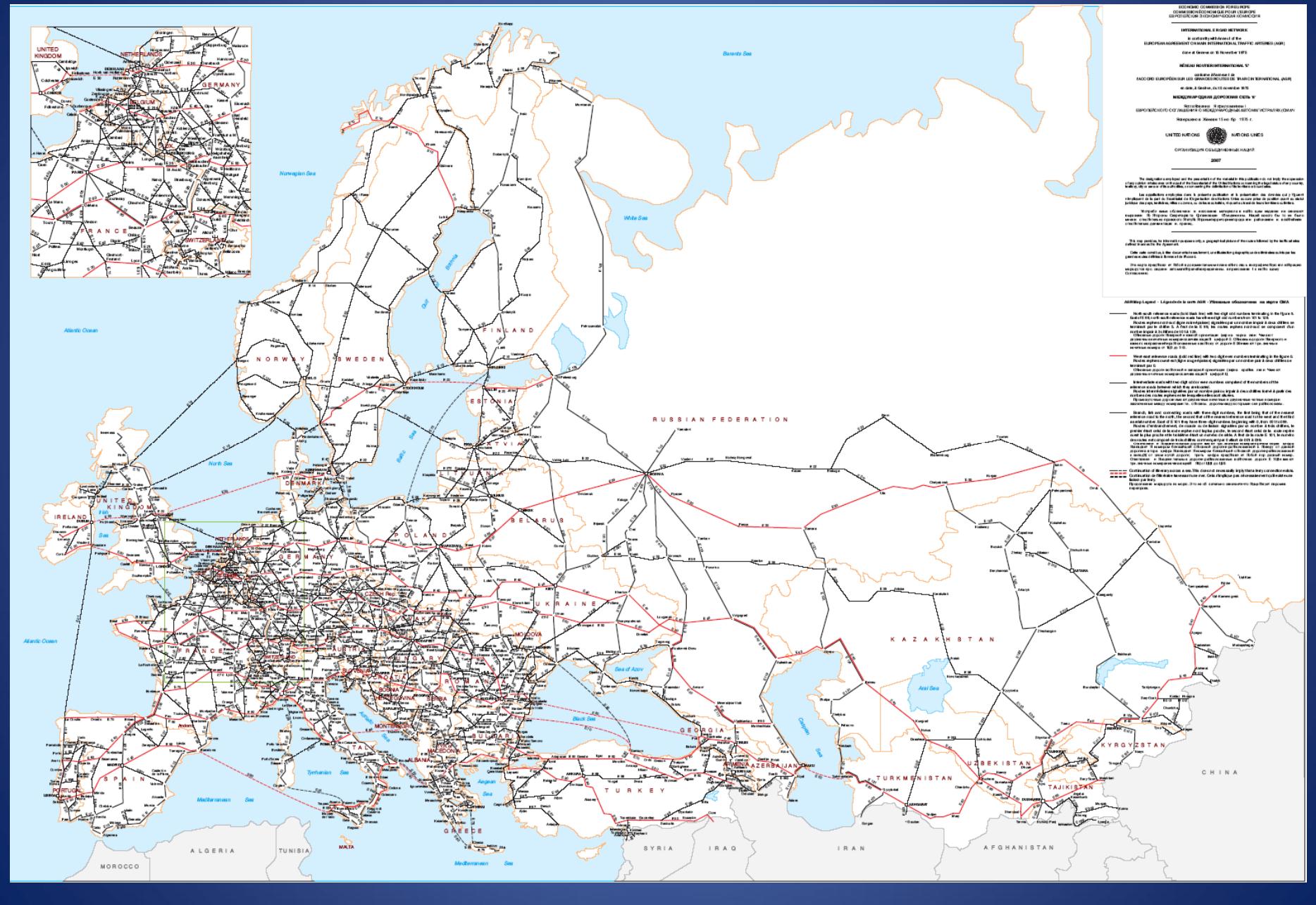
**The common feature:** transport infrastructure planning on the continental scale.

**The common scope:** integrated approach in the planning.

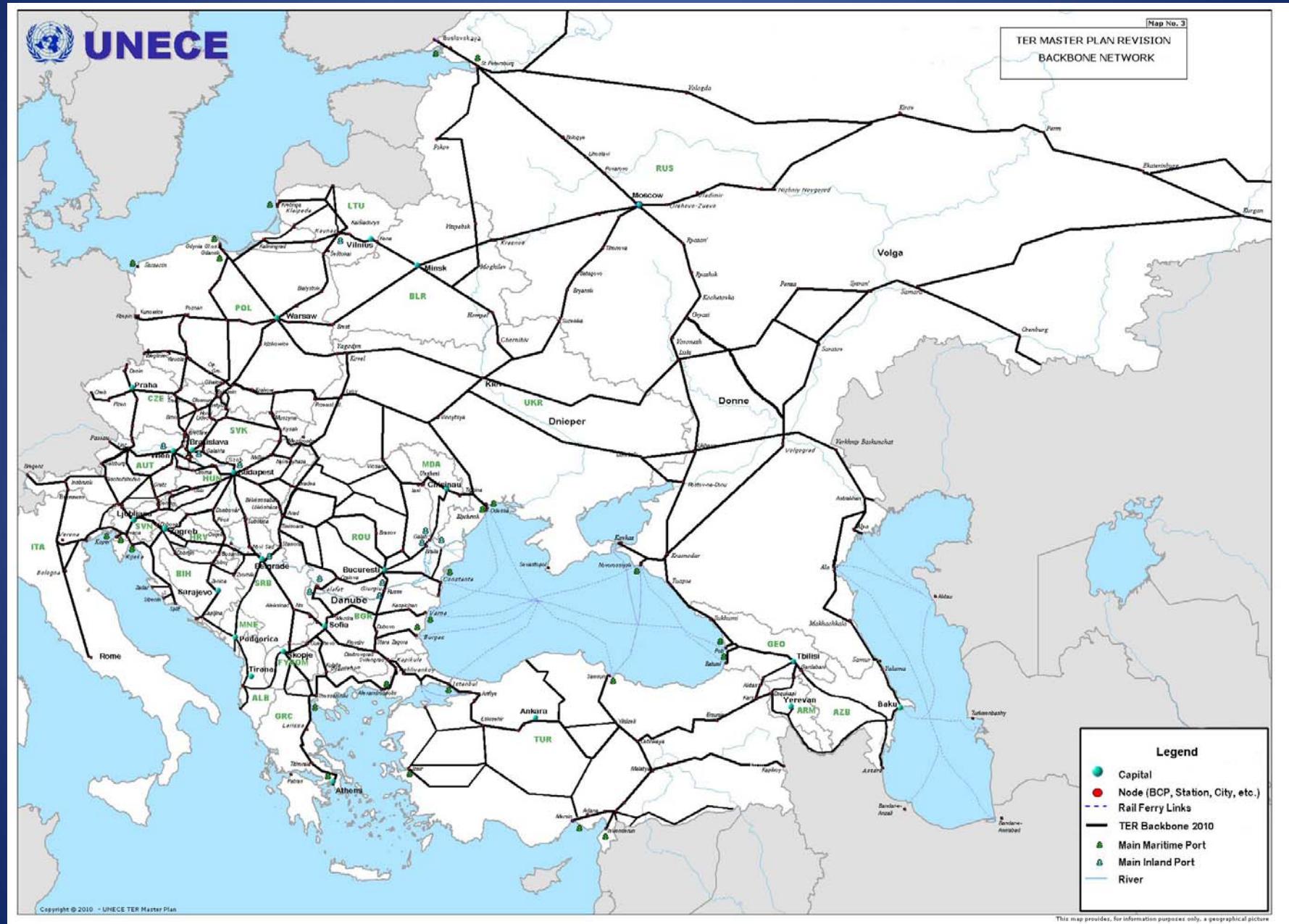
# AGC/AGTC Agreement



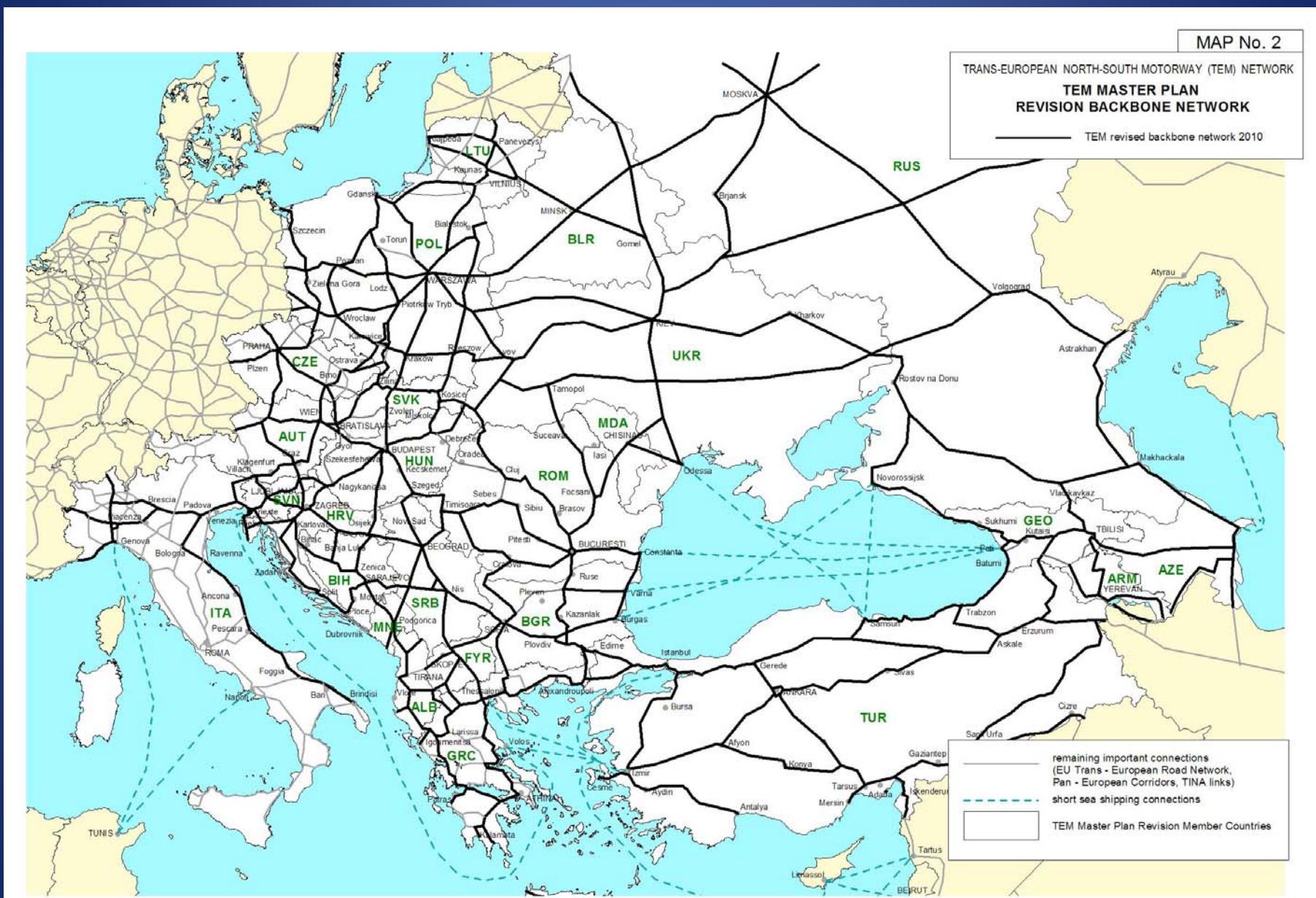
## AGR Agreement



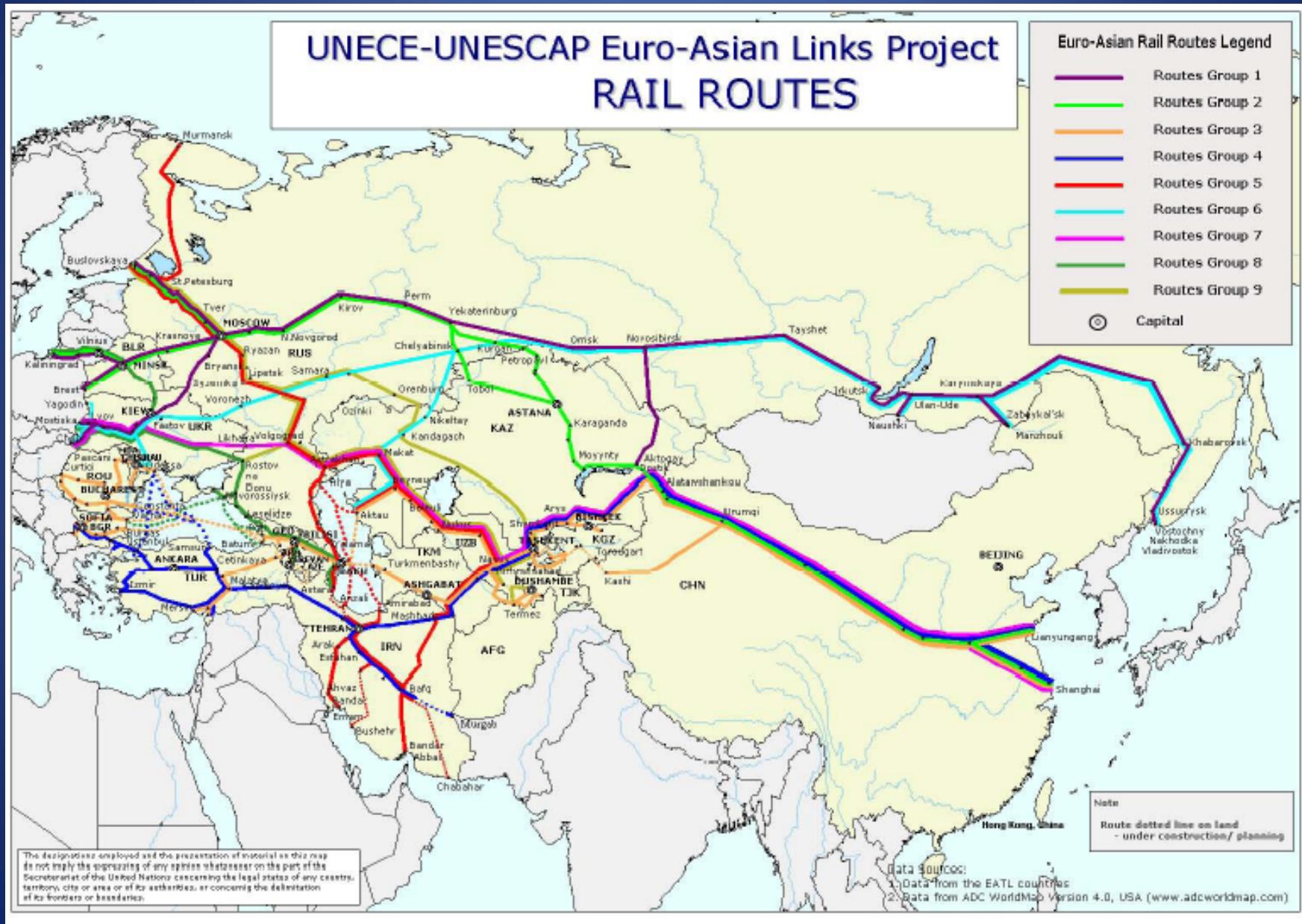
# UNECE-TER



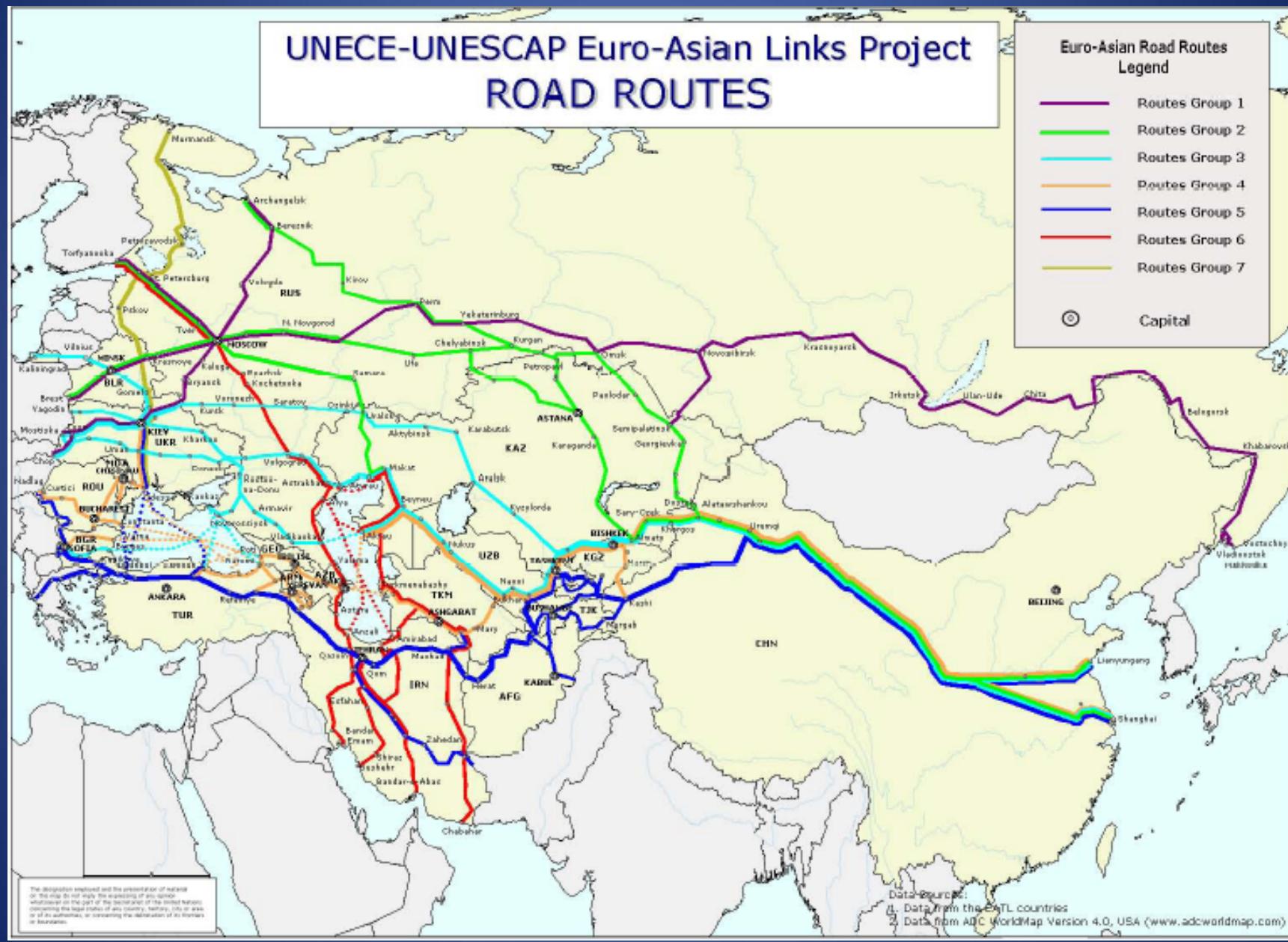
# UNECE-TEM



# EATL-Rail Network

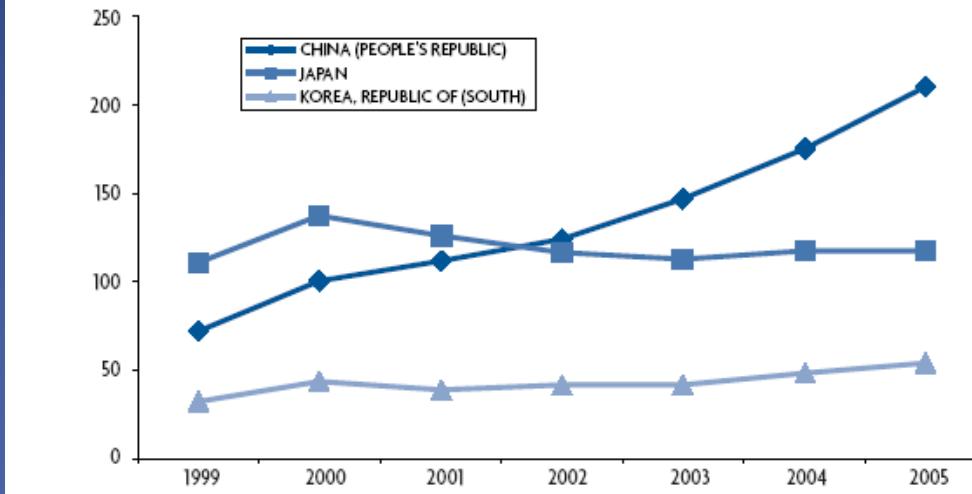


# EATL-Road Network



## Trade Pattern of Euro-Asia

FIGURE 4.1 THE EU-25 MERCHANDISE TRADE WITH EAST ASIA, 1999-2005 (BILLION EUROS)



*Per cent of merchandise trade flows in tons*

Transport mode	1999	2005	1999	2005
	EU-25 imports	EU-25 imports	EU-25 exports	EU-25 exports
Unknown	7.3	25.5	0.4	2.8
Sea	77.8	66.3	89.8	87.1
Rail	0.4	0.5	0.9	2.0
Road	7.0	4.3	6.3	5.8
Air	1.6	1.5	1.6	1.6
Post	0.0	0.0	0.1	0.0
Fixed mechanism	0.0	0.0	0.0	0.0
Inland waterway	5.2	1.3	0.9	0.8
Self propulsion	0.6	0.6	0.1	0.0
All modes	100	100	100	100

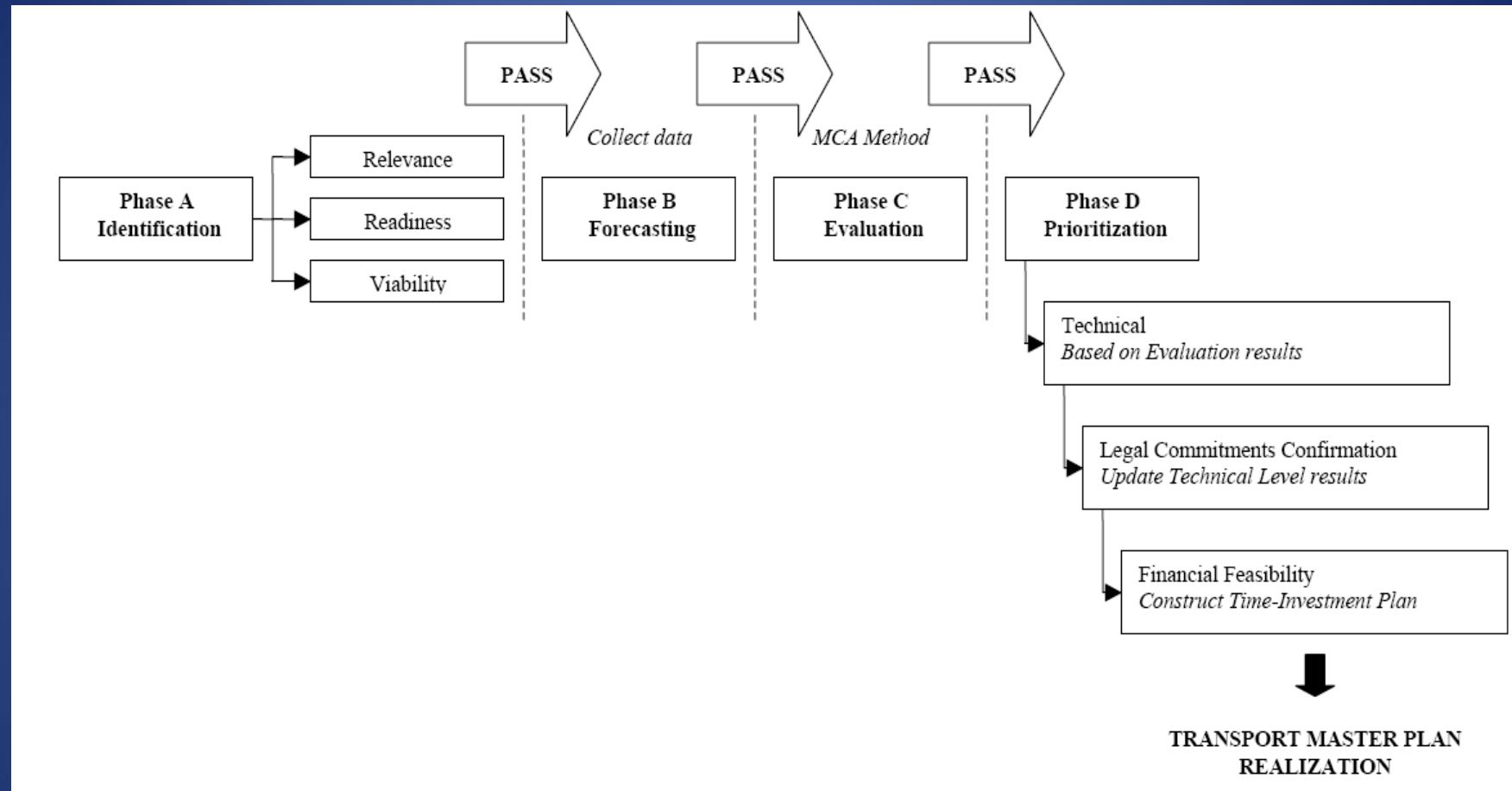
## Distribution per selected countries in inland transport

*Per cent of flow in tons*

Trading partner	Transport mode	EU-25 imports 1999	EU-25 imports 2005	EU-25 exports 1999	EU-25 exports 2005
China	Rail	0.3	0.5	0.4	1.7
China	Road	6.0	4.2	5.4	5.9
China	Inland waterway	7.4	1.6	0.6	0.9
Iran	Rail	0.0	0.0	2.3	9.3
Iran	Road	0.2	0.2	3.9	7.2
Iran	Inland waterway	0.0	0.0	2.2	1.1
Japan	Rail	0.6	0.2	1.6	2.2
Japan	Road	11.6	3.5	7.2	5.2
Japan	Inland waterway	1.3	0.4	1.5	0.4
Korea (South)	Rail	0.4	0.8	0.6	2.5
Korea (South)	Road	5.4	7.4	6.8	6.2
Korea (South)	Inland waterway	1.5	0.7	0.8	1.1
Belarus	Rail	6.2	51.6	39.6	31.6
Belarus	Road	39.5	17.2	49.8	58.7
Belarus	Inland waterway	0.5	0.4	0.5	0.0
Kazakhstan	Rail	4.7	5.7	50.2	49.0
Kazakhstan	Road	0.9	0.7	26.8	30.0
Kazakhstan	Inland waterway	0.2	0.1	0.0	0.0
Russian Federation	Rail	6.9	8.1	10.1	13.1
Russia Federation	Road	2.8	2.6	41.7	56.5
Russia Federation	Inland waterway	0.8	0.6	0.6	0.5
Ukraine	Rail	4.4	46.3	6.1	32.9
Ukraine	Road	7.1	8.7	44.5	54.6
Ukraine	Inland waterway	16.8	6.0	0.1	0.1
Uzbekistan	Rail	0.7	5.9	27.9	79.0
Uzbekistan	Road	51.5	6.6	19.0	12.1
Uzbekistan	Inland waterway	0.0	0.0	0.0	0.0

Source: Eurostat.

# Principles of planning



Recent examples:

- TER/TEM Project Master Plan,
- Joint Study on Developing Euro-Asia Transport Linkages

## Flexibility of planning-updates needed (examples)

No.	Country	2006		2010		Code	Project title	Year					
		No. of projects	Cost Estimate (mil. Euros)	No. of projects	Cost Estimate (mil. Euros)			2008	2009	2010	2011	2012	2013
1	Albania (new)			3	29.00	SK-M-5	Motorway D3 Cadca, Bukov - Svrchinovec					21.3	21.3
2	Austria	6	10,900.00	17	13,639.00	SK-M-6	Motorway D3 Svrchinovec - Skalite				47.5	47.5	47.5
3	Azerbaijan (new)			2	319.00	SK-H-1	Expressway R3 Horna Stubna, bypass	3.8	3.8	3.8	3.8		
4	Belarus	1	0.57			SK-H-2	Expressway R4 Kosice - Milhost			24.8	24.8	24.8	24.8
5	Bosnia and Herzegovina	7	354.10	8	130.00	SK-H-3	Expressway R4 Svidnik, relocation	5.3	5.3	5.3			
6	Bulgaria	8	4,969.00	9	7,845.00	SK-M-7	Motorway D1 Sverepec - Vrtizer	126.7	126.7	126.7			
7	Croatia	16	595.60	16	4,839.00	SK-M-8	Motorway D1 Hricovske Podhradie - Dubna Skala			269.6	269.6	269.6	269.6
8	Czech Republic	8	3,042.92	5	4,367.00	SK-M-9	Motorway D1 Dubna Skala - Turany		38.8	38.8	38.8	38.8	38.8
9	FYROM	5	511.60	5	580.00	SK-M-10	Motorway D1 Turany - Hubova			101.6	101.6	101.6	101.6
10	Georgia	2	1,826.37			SK-M-11	Motorway D1 Hubova - Ivachnova		71.0	71.0	71.0	71.0	71.0
11	Greece	12	5,626.43			SK-M-12	Motorway D1 Janovce - Jablonov	62.0	62.0	62.0	62.0	62.0	62.0
12	Hungary	23	4,405.35			SK-M-13	Motorway D1 Jablonov - Beharovce		21.0	21.0	21.0		
13	Lithuania	22	1,803.10	32	739.00	SK-M-14	Motorway D1 Fricovce - Svinia			50.3	50.3	50.3	50.3
14	Moldova	2	482.31			SK-M-15	Motorway D1 Presov West - Presov South					48.6	48.6
15	Monte Negro (new)			2	41.00	SK-M-16	Motorway D1 Budimir - Bidovce				41.7	41.7	41.7
16	Poland	6	594.50			SK-M-19	Motorway D4 Intersection Stupava, south		10.0	10.0			
17	Romania	4	3,072.10	6	5,549.00	SK-R-1	Modernization of line Zilina – Krasno nad Kysucou		72.0	72.0	72.0		
18	Russian Federation	19	7,000.00	32	5,009.00	SK-R-3	Modernization of line Kysak - Kosice						72.6
19	Serbia	13	465.10	11	4,021.00	SK-R-4	Station Cierna nad Tisou BG and NG		17.7	17.7	17.7		
20	Slovakia	5	1,820.51	13	7,559.00	SK-R-5	Modernization of line Nove Mesto nad Vahom - Puchov		223.6	223.6	223.6	223.6	223.6
21	Slovenia	7	1,314.60	9	3,401.00	SK-R-6	Modernization of line Puchov - Zilina						112.8
22	Turkey	4	3,534.80	21	12,221.00	SK-R-9	Modernization of line Kuty – Czech border				20.5	20.5	20.5
23	Ukraine	2	239.80			SK-R-10	Modernization of line Kuty - Bratislava				55.4	55.4	55.4
<b>Totals:</b>		<b>172</b>	<b>52,558.76</b>	<b>191</b>	<b>70,288.00</b>	SK-R-11	Modernization of line Kosice – Cierna nad Tisou		141.8	141.8	141.8	141.8	
								197.7	793.5	1,239.7	1,262.9	1,218.3	1,936.6
								64,572.4	63,050.7	65,591.9	69,961.2	73,000.0	77,000.0
								Investment costs to GDP ratio	0.31%	1.26%	1.89%	1.81%	1.67%
													2.52%

## Feasibility Study-a practical tool for project planning finalisation

A Feasibility Study is based on **five “corner stones”**:

- Technical/Engineering=to reach physically measurable objectives at the lowest possible costs. Basis: **Preliminary Design**.
- Environmental=to fit a project to the natural and human environment on sustainable base. Basis: **EIA/EIS**.
- Economic=to justify an investment from the socio-economic point of view. Basis: **CBA**.
- Financial=to create sustainable funding of a project. Basis: **Financial Appraisal**.
- Institutional/Legal=to assess the risks that affect a project from institutional standpoint. Basis: **Risk Assessment**.

A “sixth corner stone”: **Traffic Study**.

## Messages

### **Key General Messages:**

- work of the UNECE and its contribution to the field of Transport is fully relevant,
- the UNECE created an important player role especially in inland transport,
- the important pillars of the UNECE activities in this field are:
  1. The UN is the focal point of multilateral agreements in Transport (AGR, AGN, AGC, AGTC, TEM/TER, etc.).
  2. The UNECE serves as the gateway for information exchange of best practices and technical assistance.
  3. The UNECE uses various analytical tools in order to support the practical application of the aforesaid agreements and to provide the technical assistance in a timely manner.

For efficient execution of the UNECE activities in this field, it needs:

1. Continuous support from member countries.
2. More resources (regular and extra budgets) in order to increase the staff under the first pillar and carry out projects under the second and third pillar.
3. To have more active participation of member countries in both: meetings and activities in projects.

## Final Message

### **Key Specific Message for 2011:**

The UNECE needs to ensure a strong service of the secretariat to the inter-governmental work in both: a forum and setting a strategic directions for integration of transport infrastructure investment planning, such as TEM, TER and EATL.

**Thanks for your attention!**