

# **WORLDWIDE RAIL MARKET –** Status quo and outlook 2015



**UNIFE**

Summary

**UNIFE/Roland Berger Strategy Consultants**

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## Overall study methodology – After agreement on segmentation, analysis of market in status quo and forecasting in parallel

### MARKET SEGMENTATION

- Countries to be covered
- Transport segments
- Product segments

#### **ANALYSIS** of market volumes and installed base in status quo

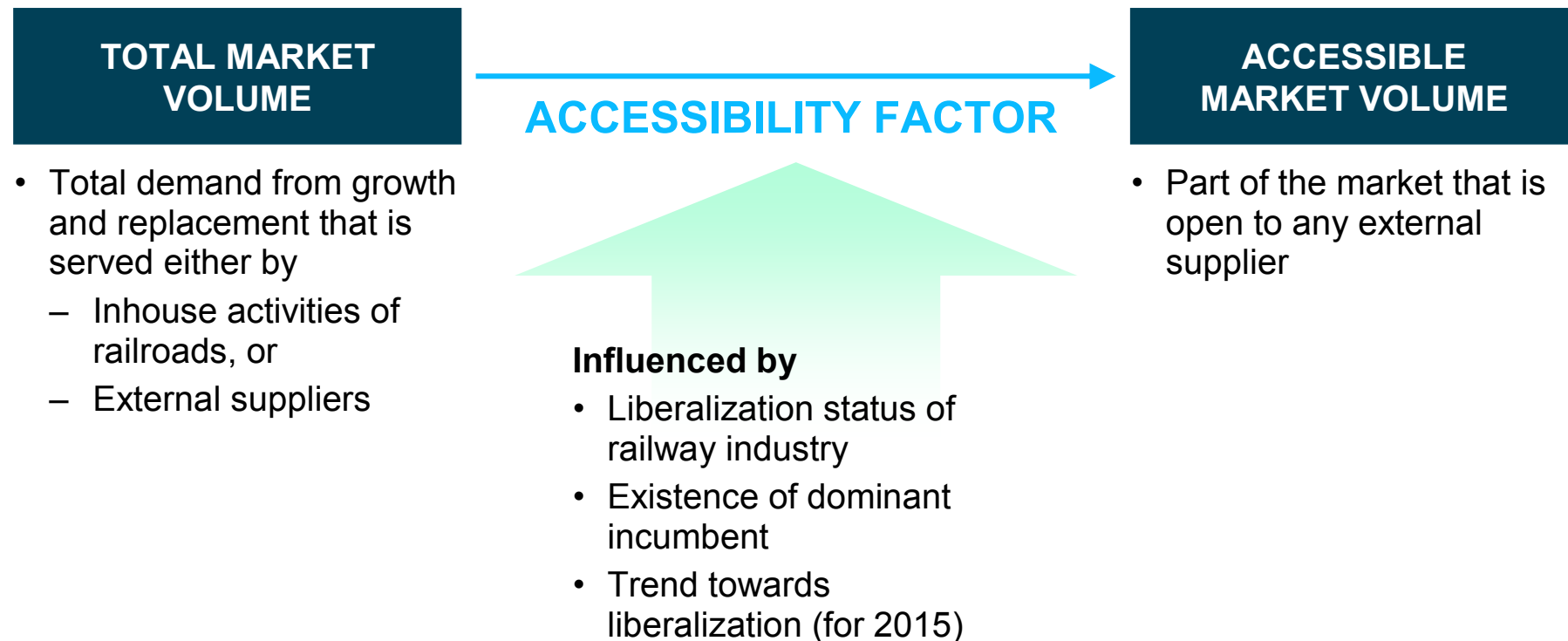
- Research installed base
- Consolidate input from UNIFE members and studies
- Comprise data, identify and eliminate inconsistencies
- Document results

#### **DEVELOPMENT** of market model and projection of market volumes

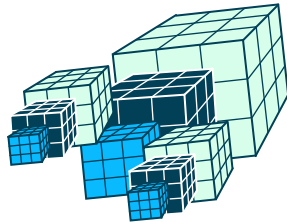
- Prepare and prioritize of drivers for model
- Determine factors and formulate forecasting equations
- Implement in Excel
- Calibrate model
- Calculate forecasts

## The model generally distinguishes total market volume from accessible market volume

Drivers accessibility



## To develop the forecast, we created a sophisticated market model – key features



The model covers **more than 2,000 segments** in the forecast

- 52 segments (product groups in five transport segments: VHS, Mainline, LRV/tram, Metro, Freight) for each country
- 41 countries plus metro in Mexico

**95%**

The countries selected cover **more than 95% of the world's transport volume**.  
The market volume of the remaining countries is extrapolated

Due to its long-term forecast horizon, the model is **based on top down growth drivers** and considers projects mainly for double checking market forecasts in the near term

The model states all values and growth rates in **real terms** (excluding inflation)

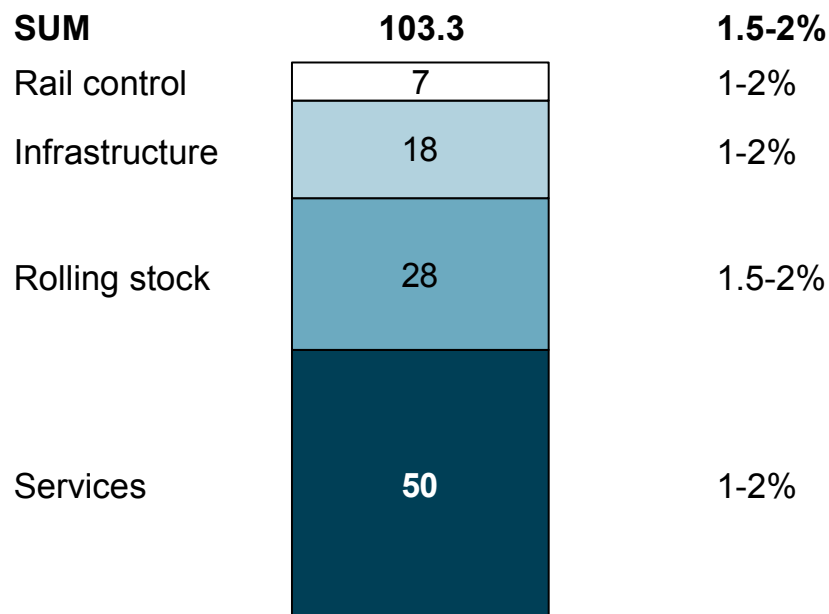


# The total market volume exceeds EUR 100 billion – Services make up half of the total market, but show comparably low accessibility

Market volume rail market [EUR bn] by segment

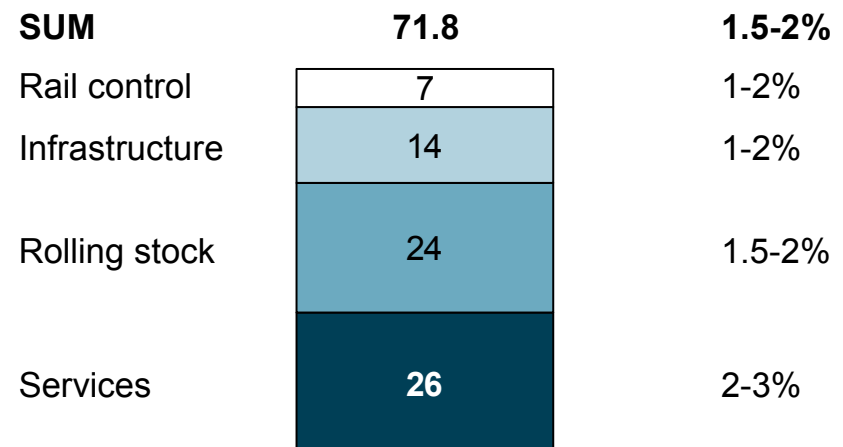
## TOTAL MARKET

Average market volume 2003-2005	Growth p.a.
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## ACCESSIBLE MARKET

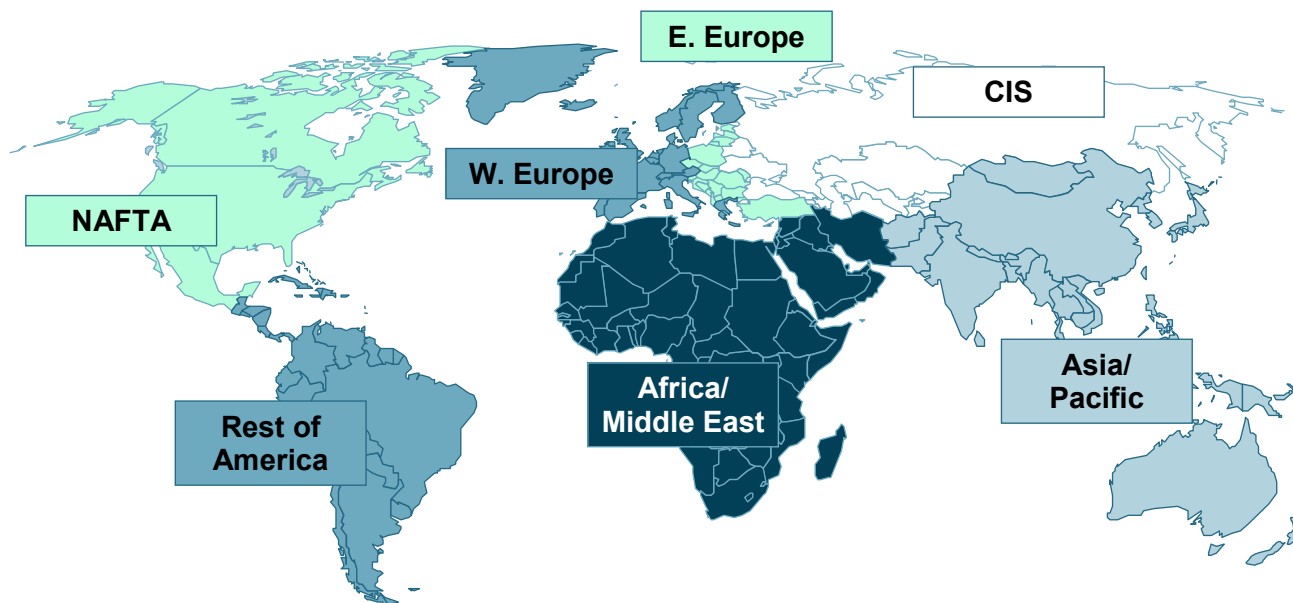
Average market volume 2003-2005	Growth p.a.
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# Western Europe represents, with a significant distance, the most important region for railway suppliers

Market volume rail market [EUR bn] by region

Regions

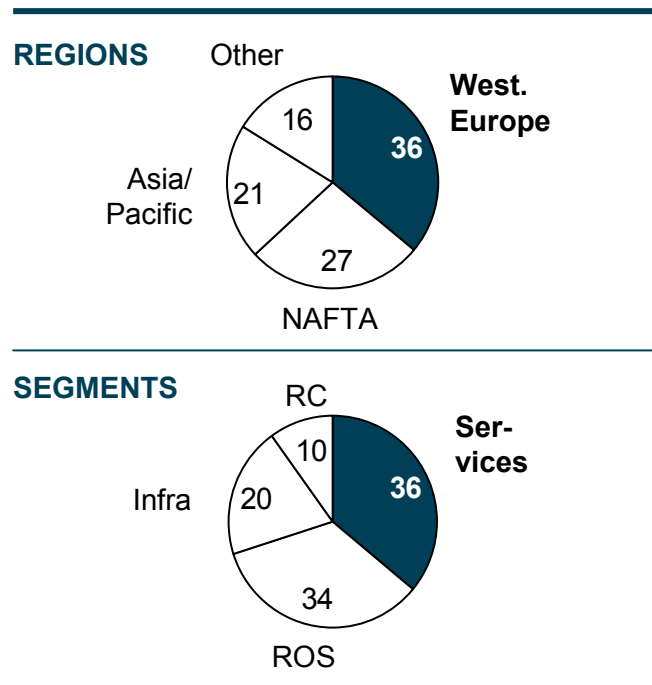


	Rail market
<b>Western Europe</b>	26 (34)
<b>Eastern Europe</b>	4 (6)
<b>CIS</b>	5 (11)
<b>NAFTA</b>	19 (22)
<b>Rest of America</b>	2 (3)
<b>Asia/Pacific</b>	15 (24)
<b>Africa/Mid. East</b>	2 (3)
<b>Σ</b>	<b>71.8</b> <b>(103.3)</b>

# Rolling stock in Western Europe and services in North America are the largest segments in terms of accessible market volume

Accessible market volume rail market [EUR m]<sup>1)</sup> – average 2003-2005

Split [%]



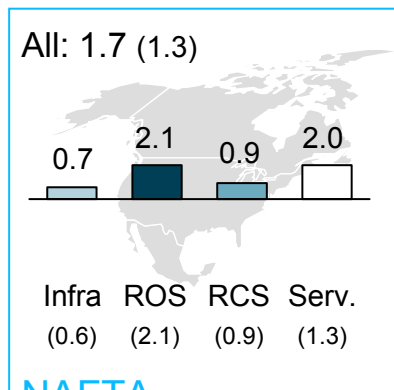
	Infra-structure	Rolling Stock	Rail Control	Services	Σ <sup>2)</sup>
<b>Western Europe</b>	5,418 (6,307)	9,495 (9,495)	3,368 (3,486)	7,357 (14,084)	25,841 (33,574)
<b>Eastern Europe</b>	685 (1,174)	860 (860)	411 (411)	1,719 (3,545)	3,676 (5,990)
<b>CIS</b>	591 (1,118)	1,839 (3,065)	335 (349)	1,738 (6,736)	4,503 (11,268)
<b>NAFTA</b>	4,917 (5,376)	4,465 (4,465)	717 (740)	9,157 (11,651)	19,267 (22,245)
<b>Rest of America</b>	173 (247)	467 (467)	117 (117)	1,512 (2,280)	2,258 (3,111)
<b>Asia/Pacific</b>	1,934 (3,414)	6,594 (8,920)	1,869 (1,907)	4,268 (9,828)	14,707 (24,110)
<b>Africa/Mid. East</b>	247 (453)	689 (705)	160 (163)	350 (1,618)	1,519 (3,012)
<b>Σ</b>	<b>13,966</b> <b>(18,089)</b>	<b>24,409</b> <b>(27,978)</b>	<b>6,976</b> <b>(7,173)</b>	<b>26,092</b> <b>(49,741)</b>	<b>71,771</b> <b>(103,309)</b>

1) Figures in brackets show the total market volume

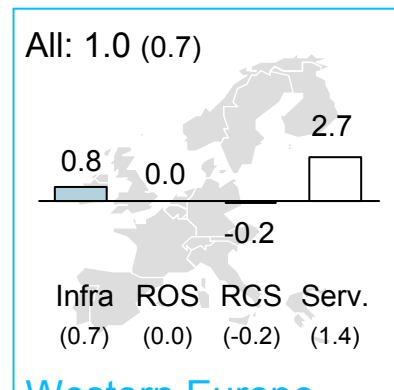
2) Including a total of 328 Mio. EUR for system project integration

# The accessible worldwide rail market is expected to grow 2.0% per year over the next ten years

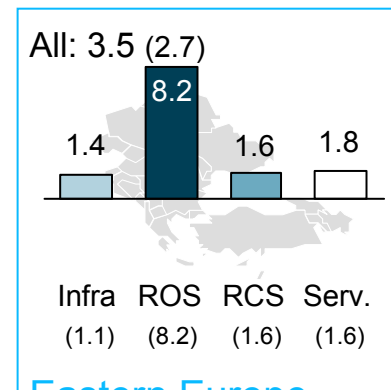
Annual growth rates market volume 2005-2015<sup>1)</sup> [% p.a.]



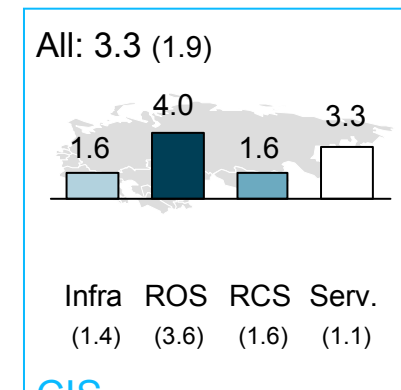
NAFTA



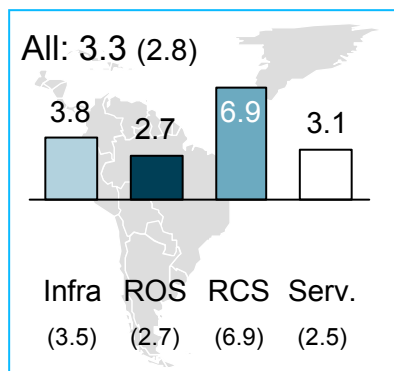
Western Europe



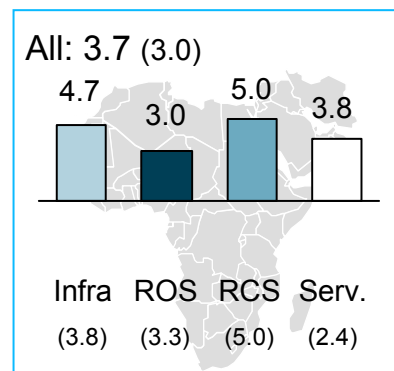
Eastern Europe



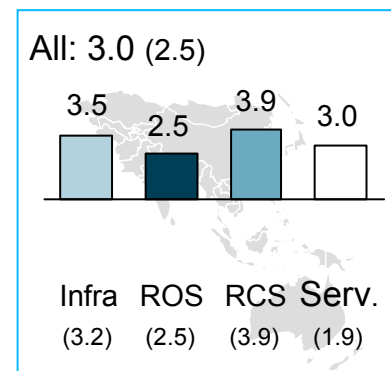
CIS



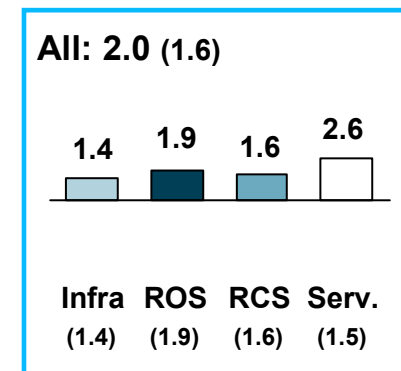
Rest of America



Africa / Middle East



Asia / Pacific



World

1) Figures in brackets show the total market volume

Infra: Infrastructure; ROS: Rolling Stock; RCS: Rail Control Systems; Serv.: Services

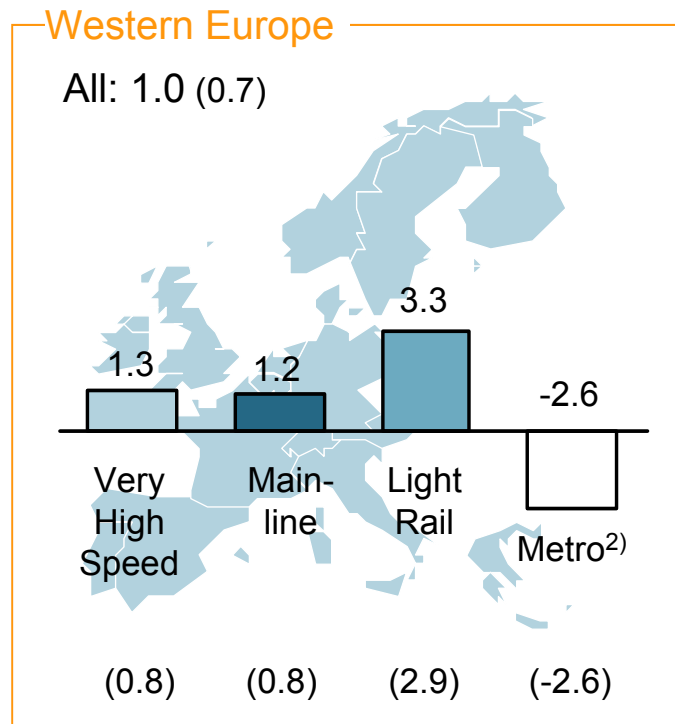
## Growth of GDP as a one main driver explains the strong market growth in Eastern Europe, CIS and Asia/Pacific

### GENERAL KEY DRIVERS FOR GROWTH

- Price development
  - Growth of GDP (and resulting traffic growth)
  - Political support for rail
  - Average age and size of fleet, length of average replacement period
  - Productivity gains
  - Increase in oil prices
- **Largest growth** for continents/ countries with **booming economies** and a **backlog** in rail infrastructure investments (Eastern Europe, CIS, Asia/Pacific)
  - **Large absolute growth** for the **mature markets** in Western Europe and NAFTA
  - High growth rates in Southern America, Africa and Middle East but low current market volumes; therefore, except for a few prosperous countries and systems projects, **little strategic importance**

## Western Europe shows low but stable growth of 1% – the market volume for Metro will decline

Annual growth rates market volume 2005-2015<sup>1)</sup> [% p.a.]

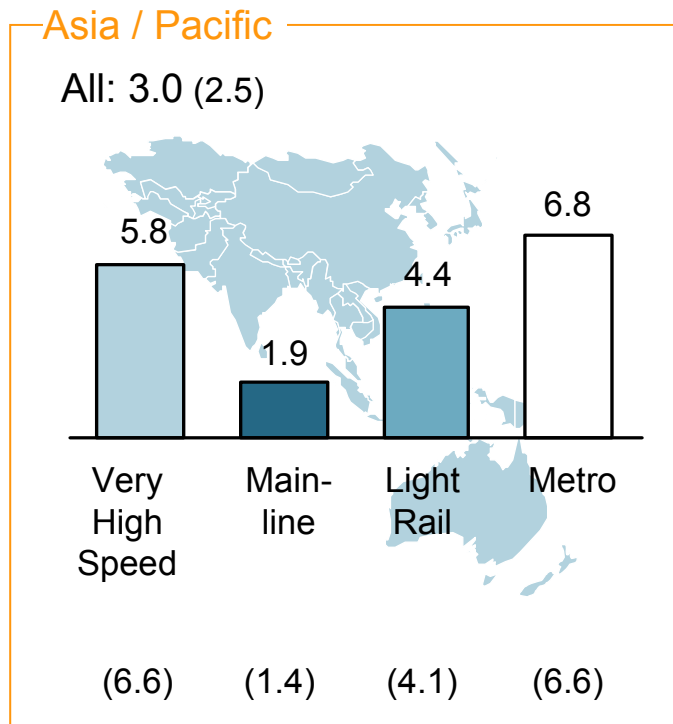


- Very High Speed will grow at 1.3% and be concentrated on a few countries only
- Mainline as largest segment ( $\approx 55\%$  of accessible market volume) will grow at 1.2%. Growth above average is predicted for the following segments:
  - Locomotives and shunters
  - Multiple units
  - Coaches
  - Services
- Strong growth predicted for Light Rail especially in Rolling stock and services
- Decline of Metro segment – mainly due to large order income by London Underground in 2003-05

1) Figures in brackets show the total market volume 2) Disregarding UK: Accessible market +0.6%; total market +0.4%

## For Asia/Pacific strong growth is expected in all transport segments

Annual growth rates market volume 2005-2015<sup>1)</sup> [% p.a.]



- A significant growth is predicted for all major countries except for Japan with flat market development
- The high growth in Very High Speed stems from three countries: China, Japan and South Korea
- In mainline the following market segments display the highest growth:
  - Superstructure and electrification
  - Locomotives and shunters
  - Rail Control
- Both Light Rail and Metro will benefit from high urbanization and major traffic problems in many Asian cities

1) Figures in brackets show the total market volume

## UNIFE's study on the world rail market...

...provides valuable insights ...

- Structure and segmentation of rail supply industry
- Geographic distribution among segments
- Current size of total and accessible market segment by region
- Growth forecast for the next decade

...to all industry stakeholders

- Railways
- Suppliers
- Sub-suppliers
- Managers
- Political decisions makers
- Investors
- Financial analysts

