



# Worldwide Rail Market Study – status quo and outlook 2016

A study commissioned by UNIFE,  
the Association of the European Rail Industry  
and conducted by Roland Berger Strategy Consultants



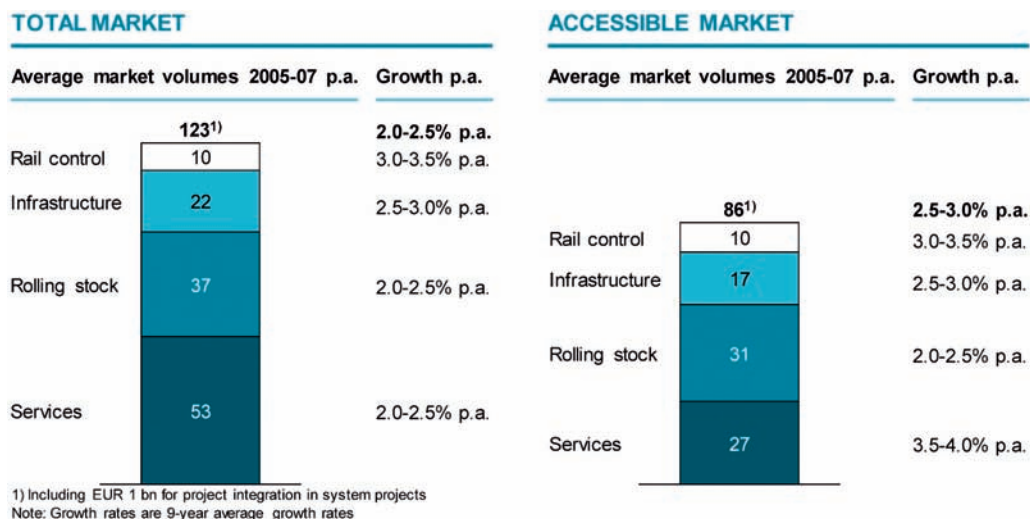
## A. Executive Summary

This second world market survey of the rail supply industry shows that the industry has grown tremendously over the past two years. New railway projects around the world plus upgrading/expanding existing railway lines caused orders in virtually all market segments to surge.

This robust growth will continue for the foreseeable future. Overall trends favour the industry: politicians, business leaders and the public are realising the importance of rail as a sustainable means of transport. Rail transport is an attractive solution to environmental issues such as carbon dioxide emissions and global warming. What's more, the rapid growth of fuel prices around the world will further promote the intermodal shift towards rail transport. This will trigger additional investments in infrastructure, rolling stock, rail control and services.

Over the past few decades, rail suppliers have taken the right action in response to the changing market environment. They have developed state-of-the-art products and services that meet the mobility needs of growing economies, both in passenger and cargo transport. Innovations make rail transport more attractive in all areas and affect the whole value chain of rail transport – from ticket sales to rolling stock and infrastructure maintenance.

**Figure 1: Average annual market volume and growth<sup>1</sup>, overall rail market [EUR bn]**



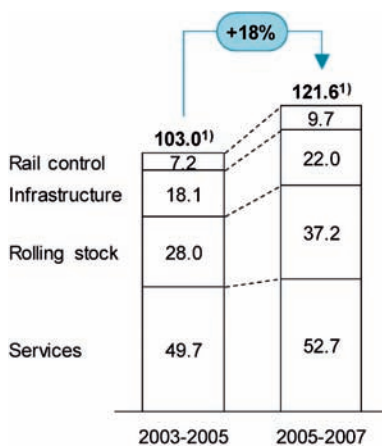
<sup>1</sup> All growth rates mentioned in this study are real growth rates (excluding inflation), accessible market is defined as that share of the total market that is open to external suppliers, cf. glossary in appendix

## The strong growth will continue

Based on an analysis conducted by Roland Berger Strategy Consultants on behalf of the Association of the European Rail Industry (UNIFE), the total annual world market for the rail supply industry in 2007 is estimated at more than EUR 120 billion, with an expected annual growth of between 2.0 % and 2.5 % over the next nine years (see figure 1). In 2016, the total world market will have reached a volume of EUR 154 billion of which about EUR 111 billion will be accessible.

The growth in 2006 and 2007 has been very high. The world market volume increased by approximately EUR 19 billion, i. e. with a nominal growth rate of 9 % and a real growth rate of 6 % p.a.

**Figure 2: Development of average annual market volume in 2005-2007 [EUR bn]<sup>2</sup>**



<sup>1)</sup> Excluding EUR 0.3 bn for project integration in system projects in 2003-05 and EUR 1.0 bn in 2005-2007

The largest nominal growth was realised in the rolling stock segment. This stems from several large orders for very high speed trains, multiple units and electric locomotives in Western Europe (in particular in Belgium, France, Germany, Spain, UK). In addition, the industry received big orders for metro cars in Asia (e.g. in China, India, Japan), NAFTA and Africa/Middle East. We expect the large influx of orders to continue at least for several years. There are numerous rail projects for which contracts in all market segments and continents will be awarded.

As in our last study<sup>3</sup>, our objective is to establish a commonly accepted market view of the rail industry, including segmentation of the market, drivers and trends,

<sup>2</sup> The market volumes are calculated as three year averages (2003-2005 and 2005-2007) to smoothen the effect of orders around the turn of the year

<sup>3</sup> In 2006, UNIFE and Roland Berger Strategy Consultants conducted a similar study

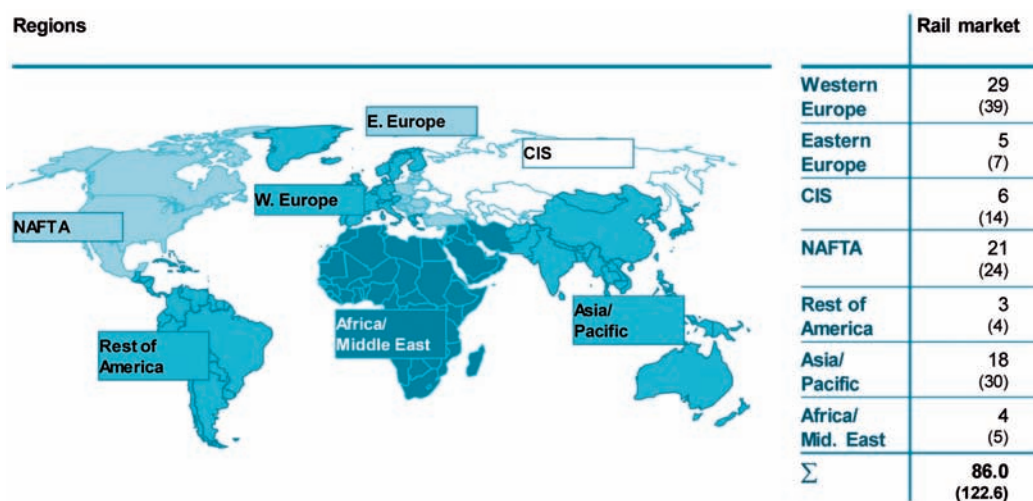
and to develop a nine-year forecast for the industry. To achieve this goal, we examined several thousand market segments worldwide. The scope of the study was expanded to include 50 focus countries that account for more than 95% of the total installed base and traffic volume. The market volume for the other countries was estimated via extrapolation. The appendix provides detailed information on the methodology of the study.

Rail suppliers are companies that manufacture and service all the systems, sub-systems and components used in modern urban, conventional and high speed systems, including rail infrastructure, rolling stock and rail signal and telecommunication systems. While a handful of multinational suppliers dominate the headlines, the sector is shaped equally by the thousands of small and medium-sized suppliers and sub-suppliers.

### Steady growth around the world, highest rates in Asia/Pacific

Europe, NAFTA and the Asia/Pacific region are the key markets today (see figure 3). Because of expected dynamic growth, Asia/Pacific will surpass NAFTA and become the second largest accessible market for the industry by 2016. The markets in the Commonwealth of Independent States (CIS) and Eastern Europe will also grow above average in the coming years. Western Europe, although growing at around 2.0% annually over the next nine years, will remain the single most important rail market. The growth in NAFTA will be below the world average but steady.

**Figure 3: Accessible annual market volume, overall rail market [EUR bn] – Average order intake, 2005-2007 (figures in brackets show the total market)**



There are also substantial opportunities in Africa, the Middle East and Rest of America. These regions display high growth rates but will remain comparably small in terms of absolute market volumes. Nevertheless, sizeable metro projects for instance in Argentina, India and the Emirates show the potential of these markets. Several countries that have hardly benefited from rail transport so far are expected to develop markets with significant rail transport projects, also in freight business. Saudi Arabia is an excellent example with major rail infrastructure projects (Mineral Railway, Saudi Landbridge, Mecca – Medina high speed line). European rail suppliers responded quickly in the past to seize business when new markets opened. To remain competitive, they need to continue this proactive approach whilst recognising the evolving needs of these markets.

The various trends driving the growth and impacting the industry have been analysed from a strategic point of view in this study for the first time. As there is plenty of material available on regulatory developments, the study focuses on global trends (e.g. resource scarcity, climate change, demographic development) and changes in operator (i.e. customer) demand.

In terms of market segments for the total market, we expect rolling stock to grow at about 2.0 % to 2.5 % p.a. Here, very high speed and high speed trains, intercity multiple units and mainline electric locomotives are expected to grow above average. Rail control and infrastructure will display the highest growth among the market segments at around 3.0 %. Services is a market segment that will see healthy growth at between 2.0 % to 2.5 % each year worldwide.

The existing installed base in the 50 countries analysed in detail comprises approximately 6 million units of rolling stock and 1.5 million km of track – twice to the moon and back. Upkeep – maintaining and replacing existing systems at the end of their useful life – is, and will remain, a key factor driving the rail supply market. Services – relating both to rolling stock and infrastructure – account for more than 40 % of the total market. In most countries, around 70 % of annual deliveries of rolling stock (for infrastructure even 80 %) are replacements rather than fleet or network expansion.

As in the past, the development of particular segments in individual countries and regions will vary depending on factors such as national policy and procurement programmes. A country's economic growth also affects development. Not surprisingly, the markets with the fastest growth are to be found in developing industrial countries. Some segments with higher than average growth rates are the mainline infrastructure in Asia, locomotives in CIS and Eastern Europe and LRV rolling stock in Asia. Whilst rolling stock will grow strongly in Eastern Europe over the next nine years, in Western Europe business will remain stable on a high level.

### **A unique source of information on the rail market**

In this unique study, we provide information about the structure and segmentation of the rail supply industry. We also look at geographic distribution among segments, current size of the total market and accessible market segments by region. Finally, we deliver a growth forecast for the next nine years. We hope this study will provide new insights for railway operators, suppliers and sub-suppliers to enable them to seize the potential within this growing market. The comprehensive and concise nature of the analysis also makes it a valuable source for managers, political decision-makers, investors and financial analysts.

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