

The permanent way – very essence of the railway, but poor relation of the railway market?

Innovation and flexibility are opening up new possibilities for market players.

Railways offer an impressive display of advanced technology in the equipment for electrification, command, control, safety and passenger-information systems, right through to the issuing of tickets. Compared with that, the permanent way has the reputation of being a sector dominated above all by mechanical components involving a relatively low level of technology and prices to match, but, nevertheless, requiring huge sums of money for investing in both new and existing installations. There is, however, virtually no facet of railway systems where investments and the effects of investments have such a direct impact on their operation, bottom line and environmental compatibility as those in the component from which they derive their name.

In the latest edition of its market study, "Railway Track Systems – Global Market Trends", which appeared in September 2012, SCI Verkehr analyses the relative importance of railway tracks and the trends affecting them in the context of the worldwide market in technologies for the railways and forecasts developments for the five years to come. A differentiated view delivers valid

data that the market players can use as a basis for strategic decisions. It presents a clear picture not only of the major market developments but also describes interesting structures on both the technological and market sides that offer attractive opportunities.

1 Railway tracks in the worldwide market for railway technology

The worldwide market in products and services for the permanent way reached a total volume of just short of EUR 35 billion, taking the mean figure for the years 2010 to 2012. Between now and 2016 (taking the mean value for 2015 to 2017), it is probably going to grow to something close to EUR 42 billion (an annual growth of 3.9%).

That means that railway tracks currently account for almost a quarter of the total world market in technical systems for railways (Fig. 1). The dominant share of the market, i.e. around 60%, is accounted for by rolling stock. By contrast, there is more vitality in the market for infrastructure (track and electrification), especially on account of current projects for new and upgraded freight lines in China, India, Africa and South America.

The networks themselves are also expanding from currently roughly 1.28 million route-kilometres to approximately 1.44 million – an annual mean of 1.8%, which is, however, only half as fast as the overall rate of market growth. Overall transport performance is increasing faster than the length of the networks, from which it follows that the capacity of existing lines is being utilised to a greater extent.

Against this background, the upgrading, renewal and maintenance of the conventional networks are becoming central issues in most of the leading railway markets. In parallel with that, it is becoming more and more important to practise continuous infrastructure management to ensure the availability of the permanent way. In support of this, there is a need not only for modern monitoring and diagnostic systems, but also for track products that combine technological maturity, a robust design and precision functioning.

Public budgets are still – and will remain – the principal source of funding for investments in railway networks. It is a general trend that obtaining public money directly is becoming more and more difficult (for instance in the form of non-refundable subsidies or loans at favourable rates of inter-



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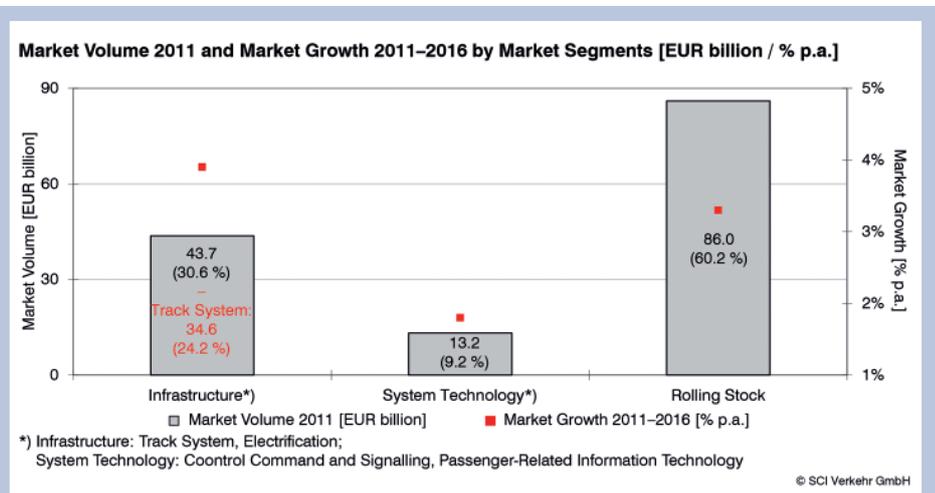


Fig. 2: Shares of the transport types in the overall network length and the permanent-way market

est). Even the private sector (such as big coal and steel companies or logistics or port operators) makes a contribution to major investments, financial assistance from the state still plays a key role, even if indirectly (for instance through the granting of concessions or in the form of public-private partnerships).

2 Conservative market with lucrative niches

This applies in particular to conventional railways for speeds of up to 200 km/h. Almost which carry all rail freight. A number of networks have been upgraded for heavier axle loads and larger loading gauges. In addition, numerous leading markets also include top-grade passenger services, which place additional demands on the infrastructure. In terms of length, conventional rail accounts for 96% of all the railway networks around the world, but it has only an 83% share in the permanent-way market (Fig. 2) and 75% of the total market for technical railway products. Two characteristics shared by the high-speed and urban-transport segments are that there are much clearer technological dependencies between the trains and the track and that product prices are relatively high. The market shares taken up by their tracks thus clearly exceed the share of such networks in the overall railway total. Considering the background just described, strategic behaviour of the market players and infrastructure policy towards conventional railway remain ambivalent.

In global terms, the permanent-way market is growing, but its structure is remaining more or less the same. Today and also in the immediate future, roughly two thirds of all investment is being channelled into the renewal and overhaul of railway tracks and one third into new and upgrading projects. Nor is there any real change in the overall market shares of the individual products and services. Rails, switches and crossings, sleepers and rail fastenings together amount to nearly 40% of the market volume, a third is taken up by engineering activities and about a fifth fits into the residual category of miscellaneous permanent-way products.

Special products for ballastless forms of track (such as "slab track") form the smallest product segment, with a market share of less than 5%. Permanent way is a pretty traditional market. It would be false to claim that there was no innovation, but totally new products and services fare no better than conquering niches. Niches, however, often offer lucrative business opportunities, and so innovative suppliers find themselves drawn to them. Examples of new products for the permanent way that have been successfully launched on the market in the recent past are hydraulic locks for switches and crossings, frame sleepers, sleeper

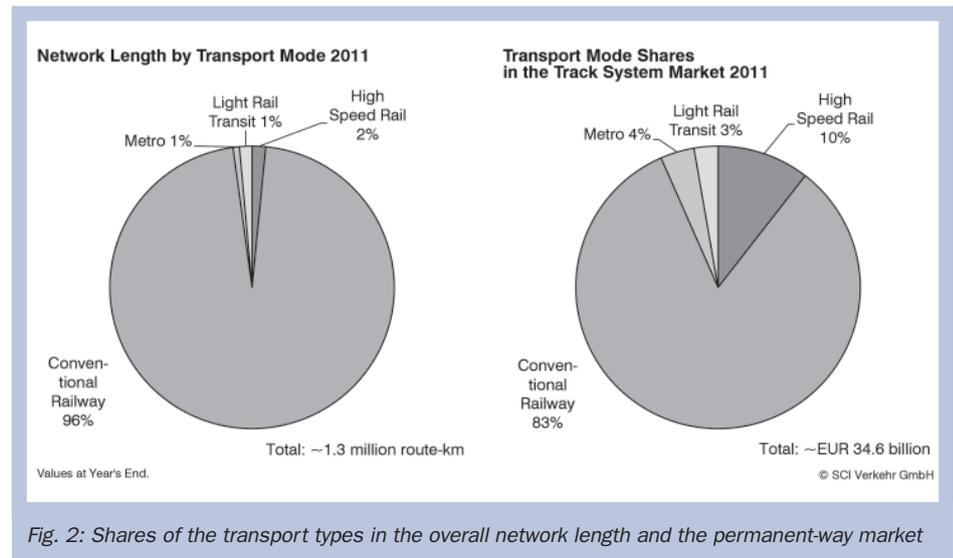


Fig. 2: Shares of the transport types in the overall network length and the permanent-way market

pads and various products for damping vibrations in the track.

Both the structure of the investments and that of the products and services vary between the individual regions of the world market. Product suppliers and service providers who manage to leverage these differences have a passport to a number of interesting market niches.

3 Shifting emphases in the regional markets

The leaders in the comparison of the big market regions are still North America, Western Europe and Asia. Moreover, the Asian market as a whole is maintaining the perceptible impetus it has had for the last years. The four largest national markets – China, USA, Russia and India – are displaying at best only slight growth. Whereas in Western Europe it is France and Germany that are providing the strongest driving force for the market, all the other regions are clearly shifting away from their traditionally preeminent markets.

It is particularly impressive to observe the growth curves away from the biggest markets in Africa, the Middle East and Asia. In addition to the expansion to the railway networks around the Persian Gulf and in the Maghreb, the countries south of the Sahara with rich natural resources are going to grab most attention in the coming years. Numerous new railway lines are on the verge of becoming reality there between mines and ports, and existing lines are being thoroughly overhauled or replaced. In nearly all the countries of Southeast Asia new lines are being built or planned to carry passengers and heavy freight over long distances. Any market player who would like to benefit from this dynamic activity ought to take a closer look at countries such as Oman, Botswana, Mozambique, Thailand, Vietnam or Indonesia. Most of the projects there are

being financed with foreign capital (often Chinese), and the market balance between investors and the governments in charge vary quite considerably. Up-to-date regional market studies carried out by SCI Verkehr provide detailed analyses.

It is still the case that European market players can rely on their experience and expertise wherever they go in the world. However, the development poles in technology and business have already shifted away from Europe to Asia, Africa and the Middle East. In these regions too the smaller markets are gaining ground compared with the larger ones. Anyone able to react appropriately to these trends can be assured of good medium-term business opportunities.

4 Summary

According to an up-to-date study, the worldwide market volume for the permanent way amounted to roughly EUR 35 billion in 2011 and is going to grow to some EUR 42 billion by 2016. That is approximately one quarter of the worldwide market for technical railway equipment.

Conventional rail accounts for 96% of the total network length, but for only a little over 80% of the permanent-way market. Both the structure of investments and the proportions of the various products and services are remaining constant, but capacity utilisation of the railway networks is increasing and demands for their availability are becoming more stringent. Depending on the region, interesting market niches are opening up for innovations.

There are definite movements inside the major market regions and between them. The trend is moving away from the traditionally leading markets to more distributed ones and also away from Europe. Lucrative business is opening up in the medium term for innovative and flexible suppliers. ■