

# Electric locomotive ma

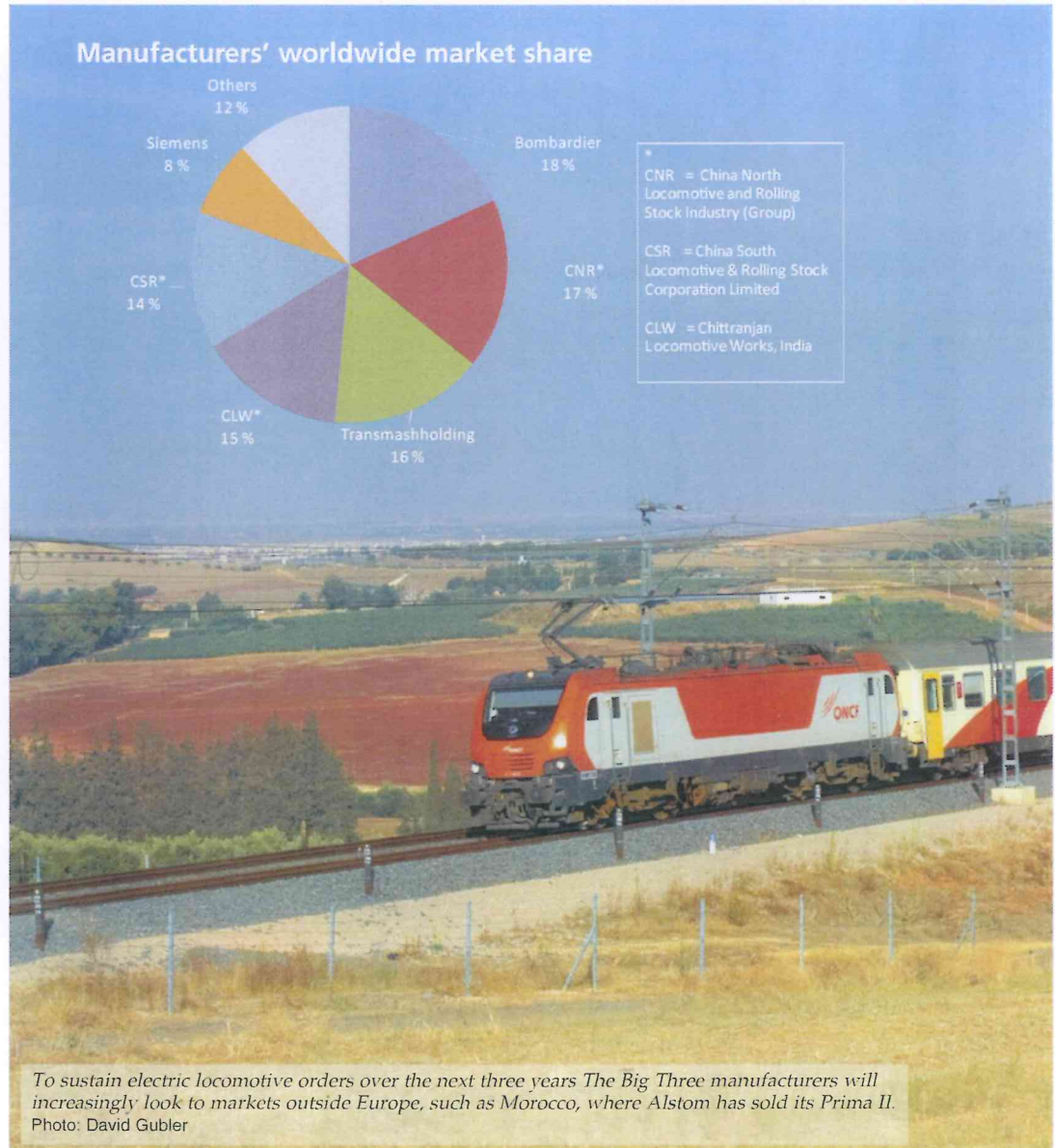
Product innovation and a widespread need for fleet renewal will drive the electric locomotive market to further growth over the next three years, explain **Torsten Schuchmann** and **Katja Wittke** of SCI Verkehr, Germany.

**E**LECTRIC locomotive manufacturers have reason to feel optimistic about future market prospects according to the latest market study published by railway market specialist SCI Verkehr.

Increasing transport demand, as well as fleet refurbishments and new product platforms will spur an average worldwide growth rate of around 6% per year up to 2015. At present, railway operators around the world are investing €3.3bn annually in new electric locomotives and around €2.5bn per year in the service and maintenance of their fleets. However, dynamic growth in Asia, Eastern Europe and the former Soviet Union is expected to increase these margins over the next few years.

In total there are almost 47,000 electric locomotives currently in operation worldwide with an average age of around 27 years. While the proportion of electric locomotives has increased considerably in the past few years, diesel traction remains dominant, with electric locomotives accounting for less than 30% of all locomotives worldwide.

Asia, the former Soviet Union and Western Europe account for almost 84% of these, with China, Russia and India increasing their fleets considerably in the last few years. The remaining 16% of the market is mainly divided between Eastern Europe and South Africa. In the Pacific region and Australia, as well as in North and South America,



diesel traction continues to dominate with only a few hundred electric locomotives in operation.

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A substantial proportion of these locomotives are either operated solely for freight or used universally. The proportion of units used

specifically for passenger transport has declined rapidly in the last few years due to the growing prevalence of emus.

The largest national fleets of electric locomotives are found today in China, Russia and India followed by Germany, Italy and France. Almost 60%

of the worldwide fleet is operated in these six countries, with the remaining 40% divided among 62 countries.

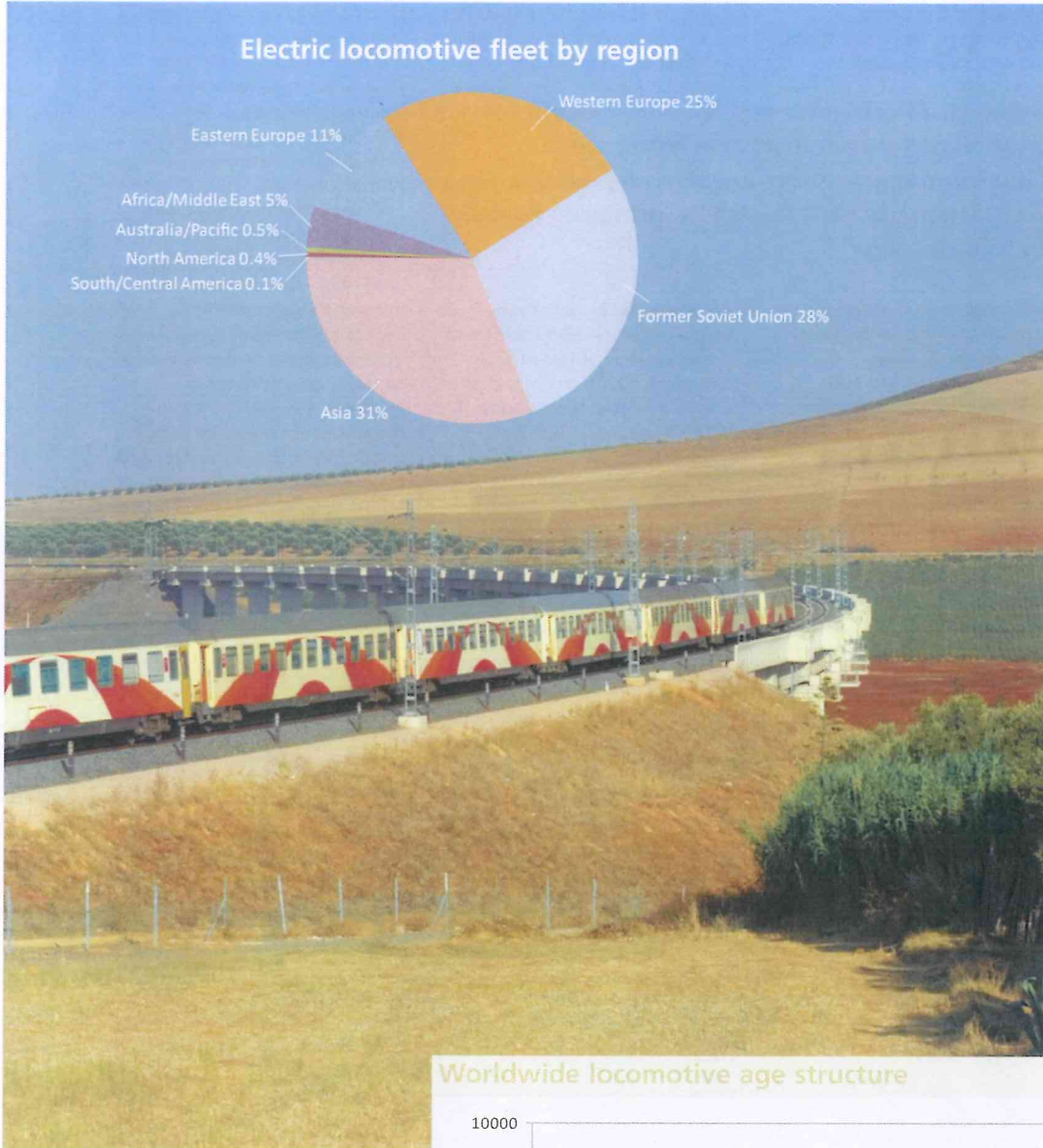
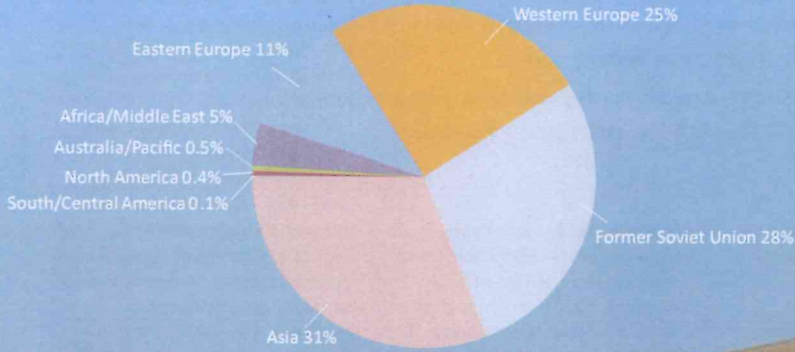
As procurements increase and old vehicles are replaced, SCI Verkehr assumes that the average fleet age will decrease slightly in the next few years.

It is also estimated that the current high procurement volume in Asia will continue, particularly in China and India where significant efforts are underway to increase the size of electric locomotive



# Market primed for growth

Electric locomotive fleet by region



important for total market volume.

Despite stagnation in Western Europe, procurement in Eastern Europe, and especially in the former Soviet Union, is expected to gain momentum as increasing market deregulation, along with the associated competition, fuels the need for new locomotive purchases.

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And with relatively old existing electric locomotive fleets in these regions, replacement will be necessary in the foreseeable future.

Inevitably the size of existing fleets in the three leading regions is driving high after-sales volumes. In Asia, a widespread rejuvenation of national fleets has led to a decline in locomotive refurbishments, while expenditure on repair and maintenance services has increased. In Western Europe development of the after-sales

fleets. With this in mind, local manufacturers are expanding production capacities, while established players are trying to enter the Asian market.

In Western Europe extensive procurements by incumbent railways are almost complete meaning that procurement activities will decline in the next few years. However, a demand will always exist for new electric locomotives due to the overall size of the region's fleet, while Europe's high prices ensures it remains

Worldwide locomotive age structure

