World market for rail electrification continues to grow dynamically, especially in Africa, the Middle East and Western Europe - urban transport and electrification of diesel lines are driving growth

[18th November 2014] The current worldwide market volume is around EUR 7.5 billion and will grow at a CAGR of 5% p.a. up to 2018. Market growth is generated in particular from numerous metro projects as well as electrification of existing diesel lines with growing operational demands. The Western European market is once again growing dynamically. Momentum for the market development up to 2018 will come from the ambitious rail electrification expansion plans in the UK. Despite their small size, Denmark and Sweden will also contribute significantly to growth: these countries want to electrify a large part of their rail networks at 25 kV 50 Hz. In addition, projects delayed due to the financial crisis will begin again and contribute to market growth. High growth is expected in the Africa/Middle East region: the market for new development and upgrade will grow further from an already high level, driven above all by new mass transit systems in Qatar, Saudi Arabia, UAE and Algeria, as well as inter-regional and high-speed rail (HSR) lines in Bahrain, Iran, Morocco, Qatar and Saudi Arabia. In the long term, SCI Verkehr expects increasing dynamism in this region. The urgency to upgrade and modernise the transport infrastructure will additionally be reinforced by the high population growth.

Rail electrification may be a niche market within railway infrastructure, but it is a growth market with good prospects in the long term, as electric drive has economic and environmental advantages over diesel drive. Of around 1.3 million km of rail line worldwide, around 300,000 km is electrified, i.e. around a quarter. Among the individual market regions, the degree of electrification varies from 1% (North America) to 53% (Western Europe). The degree of electrification in Asia will continue to rise from an already high level, primarily due to the opening of new HSR lines and electrification of the existing network in China.

New development and upgrade projects for lines have a large influence on the electrification market volume. Such changes to the existing network are always the subject of political interests and decisions. As a result, infrastructure policy is one of the fundamental drivers of the market.

Various different electrical current systems have developed historically in individual countries and regions. Their concrete structural configuration is in fact even more differentiated than is shown by an examination of the electrical current system used. This has led in the field of rail electrification to the development of medium-sized national markets with many regional suppliers, each familiar with the respective national requirements and standards. Competing with them are internationally active suppliers which carry out turnkey projects. The top 5 companies in the markets for rail electrification are the global players Siemens Mobility, Balfour Beatty Rail and Alstom as well as the two Chinese electrification bureaus which serve their large domestic market. The Chinese market is dominated by the two large state construction groups China Railway Construction Engineering Corporation (CRCC) and China Railway Corporation (CREC). Due to the enormous market volume in China, the electrification bureau subsidiaries of these two construction groups occupy third and fourth place in the world market.
Many suppliers are focusing on regional niche markets in which in some cases there is almost no competition. For large-volume new infrastructure projects, multiple companies often cooperate on rail electrification for capacity reasons.

These are the results of the new market study "Railway Electrification – Global Market Development" by international consultancy specialised in the railway and logistics industries SCI Verkehr.

The MultiClient study "Railway Electrification – Global Market Development" is now available in English from SCI Verkehr (www.sci.de).

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