

## **Growth strategy is based on high technology competence**

ThyssenKrupp is geared to profitable growth in international future markets, one focus being the expansion of our core business quality flat steel. This year, the worldwide crude steel production will again reach a record level of about 1.4 billion metric tons, 200 to 250 million metric tons of which are high-grade quality flat steel. ThyssenKrupp focuses on this segment, this is where our strength lies. This strength is based on three factors: quality leadership, innovation leadership and cost leadership.

The flat steel market in the NAFTA zone is marked by a large high-grade segment with long-term growth potential. So far, ThyssenKrupp has been hardly present in this segment in the USA. It is envisaged to open up this market and to reach a market share of over 5 percent. Stainless flat steel products, too, hold good potential of perceptibly increasing our market share of currently 16 percent in the NAFTA zone.

All over the world, ThyssenKrupp has an excellent reputation and is renowned for its quality products. The Group ranks among the world's most innovative steel producers. With its quality flat steel activities, it assumes a pacesetter role in the development of high-tech steels and innovative surfaces. In this context, ThyssenKrupp sees itself as a competent partner of globally operating customers in the automotive, packing and building industry, the energy sector and the household and electric appliance industry. In the American market, the Group is going to focus in a first step on customers in the automotive industry, the energy sector, steel trade and the household and electric appliance industry.

Automotive customers will be offered – amongst others – a wide variety of lightweight construction steels permitting to save a significant amount of weight both on car bodies and chassis frames, but without sacrificing safety. The materials are distinguished by high strength and excellent forming properties. The strength of the materials permits to produce thinner bodywork with reduced weight, while the good forming properties ensure the excellent processability of the materials. All this is owed to the fact that lightweight steels possess a special texture and reach their final high strength only in the forming presses at the manufacturers' or through the high temperatures when the components are painted.

High-quality surface treatments are another area of expertise of ThyssenKrupp. The Group delivers more than 80 percent of its cold-rolled steels with a surface finish, the largest share being accounted for by hot-dip galvanized steels with a zinc coating ensuring sustainable corrosion protection. The hot-dip galvanizing lines operated by ThyssenKrupp count among the world's highest-performance installations, also in terms of

quality. They are the model for the units erected in Alabama. Surface-treated products are not only used by carmakers, but also by manufacturers of household and electrical appliances.

The energy sector needs high-performance materials for the transport and storage of energy carriers. Liquid gas, for instance, is stored at three-digit minus degrees (Celsius). The containers used to this end are made of special ThyssenKrupp steels meeting the specific ductility requirements of this application. High-strength tube steels made by ThyssenKrupp ensure the safe transport of great amounts of oil and gas under high pressure. Moreover, the Group has an especially high technological competence in tube steels for the transport of acid gas containing oil and gas. The percentage of these raw materials in the worldwide transports is ever increasing. Acid gas containing oil or gases represent an extreme corrosion exposure of pipelines.

InCar is a research and development initiative launched by the ThyssenKrupp Group for innovations in automotive engineering. The project includes more than 30 innovations for the body, powertrain and chassis. The solutions permit savings of 5,500 kilograms CO<sub>2</sub> per vehicle, including emissions during production and use. From driving alone, InCar reduces pollution by more than 17 grams per kilometer.

Alongside climate protection, the InCar project also focused on reducing costs and improving functions. The project combines the entire automotive expertise of the ThyssenKrupp Group. It is the first time an automotive supplier has marketed such a extensive package of OEM-independent innovations. The innovations have been comprehensively validated, enabling automotive OEMs to integrate them as smoothly as possible into production.

The NAFTA zone is also an attractive stainless market. Here, ThyssenKrupp is already an established player with clients among others in the areas white goods, chemical processors, oil and gas. Due to the Greenfield project and the synergies with Steel Americas, ThyssenKrupp Stainless USA has cost advantages. The stainless site in Alabama is a fully integrated, state-of-the-art plant. The cooperation with the cold rolling mill at ThyssenKrupp Mexinox in Mexico facilitates both a combined market penetration in the NAFTA region and Latin America, as well as a specialization with regard to products and customers.