

Magazine

for the Annual Report 2008-2009  
of ThyssenKrupp AG

08/09  
.....

About the  
future.  
About change.  
About us.

The world is in a constant state of flux. Ideas are born, tested, rejected or taken further. Some of them fall on fertile ground. Opportunities are seized, something new starts to grow. Change is all around us. And inside us. In people's minds as blueprints of their imagination. And as building blocks for the future. Change is part of our lives. All the time. Everywhere. One example is the reorganization of our Group, supported visually by our new corporate design. You can read more about it in "ThyssenKrupp overview". Further examples of change and our solutions to future questions are presented on the following pages. We hope you enjoy finding out about them.

## A changing world needs solutions. /

Finding the right answers to change requires the expertise to recognize where change is worthwhile. It requires the courage to defend ideas that may be unpopular. And it requires the strength to stay the long and strenuous course. If everything goes well, these efforts will be rewarded.

Rethinking things. Having the will to alter tried and tested solutions for good reason. Neither task is easy. Both require strong personalities who not only have good ideas but are prepared to stand up for them and win over others. And who are prepared to do everything to turn a good idea into reality. People like this can be found all over. In the magazine for this annual report we would like to present four of them.





# How will we build the future? /

Customer requirements in transition /

Insight /  
Change begins in the mind

*1/4*

.....

Customer requirements in transition:  
Prof. Dr.-Ing. Dr.-Ing. E.h. Werner Sobek,  
engineer and architect



Handwritten signature of Werner Sobek, consisting of the letters 'w' and 's' in a cursive style, followed by a period. The signature is positioned above a horizontal dotted line.



How ThyssenKrupp is helping build the future –  
just a few of many examples

4/∞

.....

**Today, more than half the world's population is already living in cities. By 2050 the figure will have risen to around 75 percent.** / If we are to prevent the destruction of nature through urban expansion and overexploitation, we need new, intelligent concepts for cities. For this, architecture must develop a radically different, positive relationship with the natural environment and its users. High-density, highly integrated cities are key to reducing the use of land, resources and energy. And that calls for new solutions. Sophisticated transportation concepts ensure mobility in huge buildings. And with wind turbines and solar cells integrated in their exterior design, skyscrapers become power plants serving their own needs and those of their surroundings.

### How can transportation flows in skyscrapers be improved? /

In the TWIN elevator system developed by ThyssenKrupp, two computer-controlled cabs travel independently in the same shaft. That reduces shaft requirements by up to a third and significantly increases passenger capacities.

### How can 60 floors be served? /

In the Moscow Federation Tower - at 340 meters currently the highest skyscraper in Europe - TWIN elevators cover up to 7 meters per second.

### How can high-rises generate energy? /

For example by building wind turbines into the exterior or using steel facade elements developed by ThyssenKrupp with integrated solar cells.

### What do elevators and aircraft have in common? /

To handle high speeds and big differences in height, elevators also benefit from pressurization systems.

High-speed passenger transportation in the Federation Tower in Moscow presented a whole new set of challenges to planners and technicians.



Technology in transition /

Insight /  
Change begins in the mind

*2/4*

.....

What  
will we  
invent  
today? /

Technology in transition:  
Prof. Dr. Wolfgang Bleck, researcher into highly  
innovative materials, RWTH Aachen

*W. Bleck*  
.....



How ThyssenKrupp is driving technologies forward –  
just a few of many examples

4/00

.....

**Companies all over the world are seeking tailored solutions for specific applications.** / Realizing such innovations frequently depends on new materials with precisely defined properties. With the knowledge we have today of the microscopic lattice structures of steel and the many ways of influencing them, we can customize many properties to meet specific requirements. This has resulted in a huge range of special steels, and there are still many more to come. As our work is based on real industry requirements, it is also a reflection of social expectations and global trends. Saving energy, conserving resources and reducing emissions are currently the major questions to which answers are being sought. We can supply them.

### How can power plants be made more efficient? /

One promising approach is to significantly increase the temperature in the boiler to make better use of energy. As there was no material capable of withstanding these temperatures, we invented an innovative, high-temperature-resistant nickel alloy.

### How can cars be made lighter? /

By using intelligent multi-phase steels in the body and chassis: During stamping in the auto plant these materials gain such strength that they can be used to make lighter, thin-walled components. That cuts fuel consumption and protects the climate. Naturally without sacrificing safety.

### How can seawater desalination be made more efficient? /

Heat-exchanger tubes made from a specially developed material can withstand the aggressive salt water in seawater desalination plants for a long time while also increasing efficiency.

### How can bridges be made stronger? /

Intricate bridge designs are every engineer's dream. To build them they need special steels that offer high strength and safety with low cross-sections.



As we  
grow, does  
our respon-  
sibility  
grow too? /

Commitment in transition /

Insight /  
Change begins in the mind

3 / 4

.....

Commitment in transition:  
Daniela Kattwinkel, sales engineering and  
product management student at Ruhr University Bochum



.....



Where ThyssenKrupp is taking the initiative –  
just a few examples of many

4/∞

.....

**Nowadays, companies must see themselves as a part of society.** / The younger generation in particular have a lot of questions, as they are the ones who will be most affected by current developments. Education and training, competitiveness and jobs, the availability of resources and reducing emissions are just a few examples. Companies are also expected to provide answers to these questions – beyond their actual business activities. How can the effects of global changes in working conditions be used to positive effect? How can targeted support for education and the transfer of knowledge help guide the necessary change? These are just two areas where companies have become aware of their social responsibilities and are taking a proactive approach.

### How do we show commitment? /

ThyssenKrupp bears responsibility for its own economic, social and ecological environment. Open dialogue and respect in all our dealings are an important basis. In this way, we make an active contribution to meeting many of society's challenges and support a wide range of non-profit projects, organizations and initiatives in the areas of culture, science, education and sport and for social, charitable and humanitarian activities.

### How can we provide more education? /

Education and innovation are important areas for the future. We want to help get the next generation fit for the challenges of the market. That's why we lend our support to projects which teach key skills to children and young people.

### How do we promote excellence? /

To give young people attractive prospects for the future, we work with numerous universities in Germany and abroad, award scholarships to gifted students and promote dialogue between education, research and industry.

### How do we provide impetus that benefits many? /

Our initiative "Discovering future technology" promotes dialogue on technology across all areas of society and all age groups. Our key target group are young people, for whom we stage popular events to awaken their interest in technology.



The IdeasBox teaches young people how products are devised, designed, produced and marketed.



Sustainability in transition /

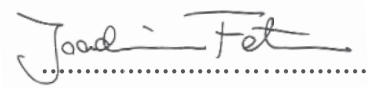
Insight /  
Change begins in the mind

4/4

.....

How can  
we grow  
better in  
the future? /

Sustainability in transition:  
Prof. Dr. Joachim Fetzter, professor for business  
and corporate ethics, University of Applied Sciences,  
FH Würzburg-Schweinfurt

A handwritten signature in black ink, reading "Joachim Fetzter", written over a horizontal dotted line.



How ThyssenKrupp is practicing sustainability –  
just a few examples of many

3/∞

.....

**The current crisis shows what damage can be done**

**worldwide by short-termism.** / Business success can

only be sustained if companies take a responsible attitude to society and the environment. We need a return to a more long-term approach, to more long-term thinking. To be able to grow better in the future, we must strike a balance between growth, prosperity, quality of life and use of resources. The mega-trends of our time – whether it's global climate protection, energy and water supply, demographic change or overcoming worldwide poverty – make it necessary to search jointly for solutions with a global perspective.

### How can we reduce emissions? /

When it comes to reducing CO<sub>2</sub>, ThyssenKrupp's production processes are already operating at the technical limits. As further savings are not possible using the technologies available, we have intensified our research and development efforts to find new approaches.

### How can we generate more energy? /

Energy-saving elevators from ThyssenKrupp are fitted with regenerative drives. They convert energy generated when braking the cabs into electricity which is fed back to the power supply. The energy consumption of the elevators is significantly reduced.

### How can we produce things without leaving a trace? /

ThyssenKrupp's production facilities around the world implement the company's own strict environmental guidelines. The recycling of process water and highly effective dust collection systems are just two examples. The Shanghai Krupp Stainless plant alone has received two prestigious awards for successful active environmental protection: the Shanghai Advanced Health Business Unit Award and the Shanghai Municipal Water Saving Business Unit Award.

Outlook / Change is our constant companion. But it never ceases to fascinate us with a constant stream of new stimuli. We will continue to take inspiration from change, to drive it forward and to do everything we can to make sustainable use of the opportunities it provides. So that we can be certain of meeting the expectations placed in us as a company and a responsible corporate citizen.

Newsletter / We hope this magazine captured your interest. The content is also available on the internet at [www.thyssenkrupp.com/fr/08\\_09/en](http://www.thyssenkrupp.com/fr/08_09/en). If you would like to find out more, subscribe to our newsletter at [www.thyssenkrupp.com/en/newsletter](http://www.thyssenkrupp.com/en/newsletter).