Agenda

1. Overview thyssenkrupp Group
2. thyssenkrupp China
We are an integrated diversified industrial group
We are a global corporation

~ € 39 bn. sales and 156,000 employees

Present in 80 countries with >2,200 sites
thyssenkrupp operates in 12 key industries:

- Automotive
- Construction, Infrastructure & Buildings
- Mining and Metals
- Chemicals
- Energy Gen. & Dist.
- White goods
- Food & beverage
- Aerospace
- Mechanical and plant Engineering
- Oil & Gas
- Shipbuilding
- Special Vehicles
engineering. tomorrow. together.

Three words to describe who we are, what we do, and how we do it.
We advance our customers – with big and small solutions

“engineering” describes how we think

engineering.
tomorrow.

We are dedicated to future challenges and develop sustainable solutions to improve our life.
together.

We share our knowledge, combine and leverage it to create innovations
We move the world: World Trade Center
71 elevators and 12 escalators
Enables travel at nearly 23 mph to reach the top in 60 sec.
We enable sustainable energy: thyssenkrupp is one of the world’s leading suppliers of slewing bearings for wind turbines.
We manage giant puzzles:
Orchestrating supply chains for the aerospace industry with millions of parts from hundreds of suppliers
We manage complexity:

Building turnkey clinker production lines with the option to use alternative fuels
We mix ideas to create right solutions:
Creating complete chemical plants from EPC to technical and operating services
We shape sustainable mobility:

Hybrid materials for the automotive industry

Strong as steel, but far lighter
We advance our customers with innovations:

MULTI Wireless Elevator for bi-directional travel

Reduces up to 50% elevator space
We share common values and take on responsibility for the global community that we live and work in.
Agenda

1 Overview thyssenkrupp Group

2 thyssenkrupp China

2.1 Key facts and mission

2.2 Portfolio overview for industries in China
thyssenkrupp in China

“
We see ourselves as part of the Chinese society and devote ourselves to create sustainable value.”

Dr. Gao Yan,
CEO of thyssenkrupp Greater China
A successful partnership with 150 years history sets the base for today and tomorrow.
We are well represented in China with sales of €2.6 billion, ~18,000 employees and a total €20 billion investment.

Note: Sales in FY 15/16, Number of Employees as of the end of 2016.
We advance industrial upgrade in China

thyssenkrupp is establishing the world’s biggest production site for steering technology in Changzhou featuring digitalized manufacturing.
We tailor-make innovative solutions for Chinese customers.

thyssenkrupp operates the world’s first cylinder-head covers production lines in Dalian, that deliver weight savings of up to 30%. A tech-Center has been established to extend local R&D.
We contribute to the mobility of the future

Our innovative TWIN Elevators for the Panorama Tower at the Olympic Park bring two cabins operating in one shaft. It is the first time that this kind of elevator system is applied in the world.
With our outstanding engineering expertise
We meet the most challenging demands

Our mobile crushing system on the Yimin River, Inner Mongolia is operating in -40°C, with a nominal throughput of 3,000 tons/hour.
We are committed to move the country fast

thyssenkrupp developed and implemented the world’s first high-speed maglev train in Shanghai with a maximum speed of 431km per hour.
We work continuously for a sustainable future

thyssenkrupp provides cutting-edge solutions for e-vehicle manufacturing and smart energy generation & distribution.
We take the promotion of harmonious development of the Chinese society as our social responsibility.
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Automotive

Trends
Rapid development of new energy vehicles & related infrastructure
Changing demographics and growing demand in lower tier Domestic brands
 gaining more and more market shares

Components
• Steering system
• Camshaft, cylinder head module
• Crankshafts
• Hot-dip galvanized steel strip
• Springs and stabilizers

Systems
• Plant design and automotive assembly systems for auto and engine OEMs
• Electric powered steering systems incl. Rack EPS, Column EPS and Pinion EPS

Services
• Services for automotive assembly technology
• Engineering, developing, testing, prototyping competence for automotive industry
China aims to increase urbanization rate to 60% by 2020, which opens up major opportunities in transport, infrastructure and building & construction sectors.

**Trends**

**Components**
- Elevators and escalators
- Key equipment for constr. materials, e.g. burner, clinker cooler, VRMs
- Track chains, frames, shafts, crankshafts and bearings

**Systems**
- Cement plant engineering and equipment supply
- Wedding robot, high quality Laser alignment CLASS jig, high efficiency gantry jig

**Services**
- High-quality spare parts and aftersales services, e.g., spare parts supply management
Mining and metals

Trends
China’s mining and metals industry is under **mega restructuring**
Severe overcapacity, environmental issues, declining reserves and ore grades force further **market consolidation** and **industrial upgrades**

Systems
- three-row roller slewing bearings
- Open-cast continuous and semi-continuous mining systems for various minerals
- Minerals processing for various minerals
- Material handling systems from individual machines to complete solutions for mining, metallurgical plants and ports

Services
- Maintenance, modernization and spare parts
**Trends**

*High growth* expected – industry value add grow 8% p.a. through 2020 (MIIT)

More Restrictive Environmental protection and clear energy policy will provide more opportunities

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**Systems**

- Technology licensing for fertilizers, syngas, electrolysis and polymers technology
- Develop PDP, Basic Design, provide Prop. Equipment supply
- ODC (Oxygen depolarized cathode)

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**Services**

- High-quality spare parts and aftersales services (e.g., modernization, modification, relocation, spare parts supply management)
- Engineering consulting for plants, i.e. fertilizers, petrochemicals, organic chemicals, refinery units, chlor-alkali, etc.
Energy Generation & Distribution

Trends
Short term overcapacity and curtailment (of renewable energy) issues vs. long term demand surge
Transition from a conventional carbon-based energy market to one that more actively pursues cleaner forms of energy

Components
• Provide redox flow batteries
• Hydrogen electrolysis
• Seamless rolled rings up to 7.8 meter
• Slewing bearings up to 5.5 meter
• Specialty steel (NGO and GO), carbon steel and stampings

Services
• High-quality spare parts and aftersales services (e.g., modernization, modification, relocation, spare parts supply management)
Aerospace

Trends
World’s 2nd largest air travel market, and is predicted to continue growth at a rapid pace
China is a growing part of the aviation supply chain in parts, products & services, and is determined to enter the large commercial airplane

Components
• Aluminum, steel, titanium and non-metallic materials
• Specialty steel (NGO and GO), carbon steel and stampings

Services
• Supply chain management
Established Chinese engineering companies make it challenging to access the engineering sector in China & other emerging countries. Increasingly stringent environmental requirements are not only hurdles but also opportunities.

**Trends**

- Established Chinese engineering companies make it challenging to access the engineering sector in China & other emerging countries.
- Increasingly stringent environmental requirements are not only hurdles but also opportunities.

**Components**

- Seamless rolled rings up to 7.8 meter
- Slewing bearings

**Systems**

- Continuous and semi-continuous mining system in open-pit mines
- Process and equipment for crushing, processing and production
- Cement plant engineering and equipment
- Three-row roller slewing bearings

**Services**

- Engineering consulting for plants, i.e. fertilizers, petrochemicals, organic chemicals, refinery units, chlor-alkali, etc.
- Maintenance services
Special Vehicles

Trends
Special vehicles on modern construction projects operate under high requirements. Contemporary architecture requires complex ground preparation, a challenge that impacts directly on the design of the equipment.

Components
- Seamless rolled rings up to 7.8 meter
- Slewing bearings (e.g. excavators, radar antenna, tunnel boring machine, medical scanners, etc.)
- Machining of crankshafts for special vehicles

Systems
- Standard machines for crushing and sizing rocks
Thank you!