

## Overview Power Services – POWERing ahead together

Capital Markets Day “Power Services” at Moorburg Power Plant

December 2, 2010

Gerd Lesser, CEO of BB Power Services GmbH



## Agenda

1. Overview Bilfinger Berger Power Services (BBPS)
  - 1.1 General overview of BBPS
  - 1.2 Organization
  - 1.3 Key figures
  - 1.4 Business segments
  
2. Business trends and drivers
  
3. International expansion and acquisition strategy
  - 3.1 Regional interests
  - 3.2 Growth perspectives
  - 3.3 Screening criteria for acquisitions

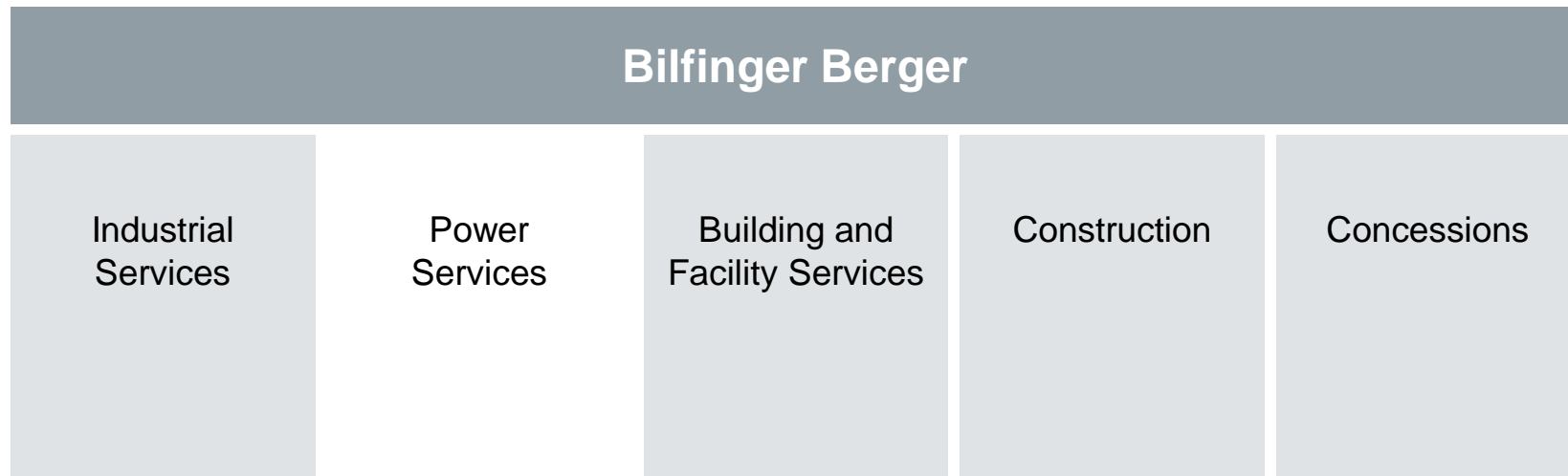
# 1. Overview Bilfinger Berger Power Services

## 1.1 General overview of BBPS

- Bilfinger Berger Power Services GmbH offers comprehensive services for the electricity generating industries
- We accompany our clients throughout the entire plant lifecycle
  - Boilers and piping systems
  - Components for new plants
  - Rehabilitation and complex rebuild of existing plants
  - Overhauls and maintenance
  - Spare parts and components
  - Special components for nuclear plants and research institutes
- 2009: Orders received of about € 1.1 bn, output volume of about € 1 bn
- Among the market leaders in this area
- BBPS' business consists mainly of complex activities, executed with own project management resources and project management tools
- These complex services and works are based on in-house engineering and know-how within Power Plant Technologies

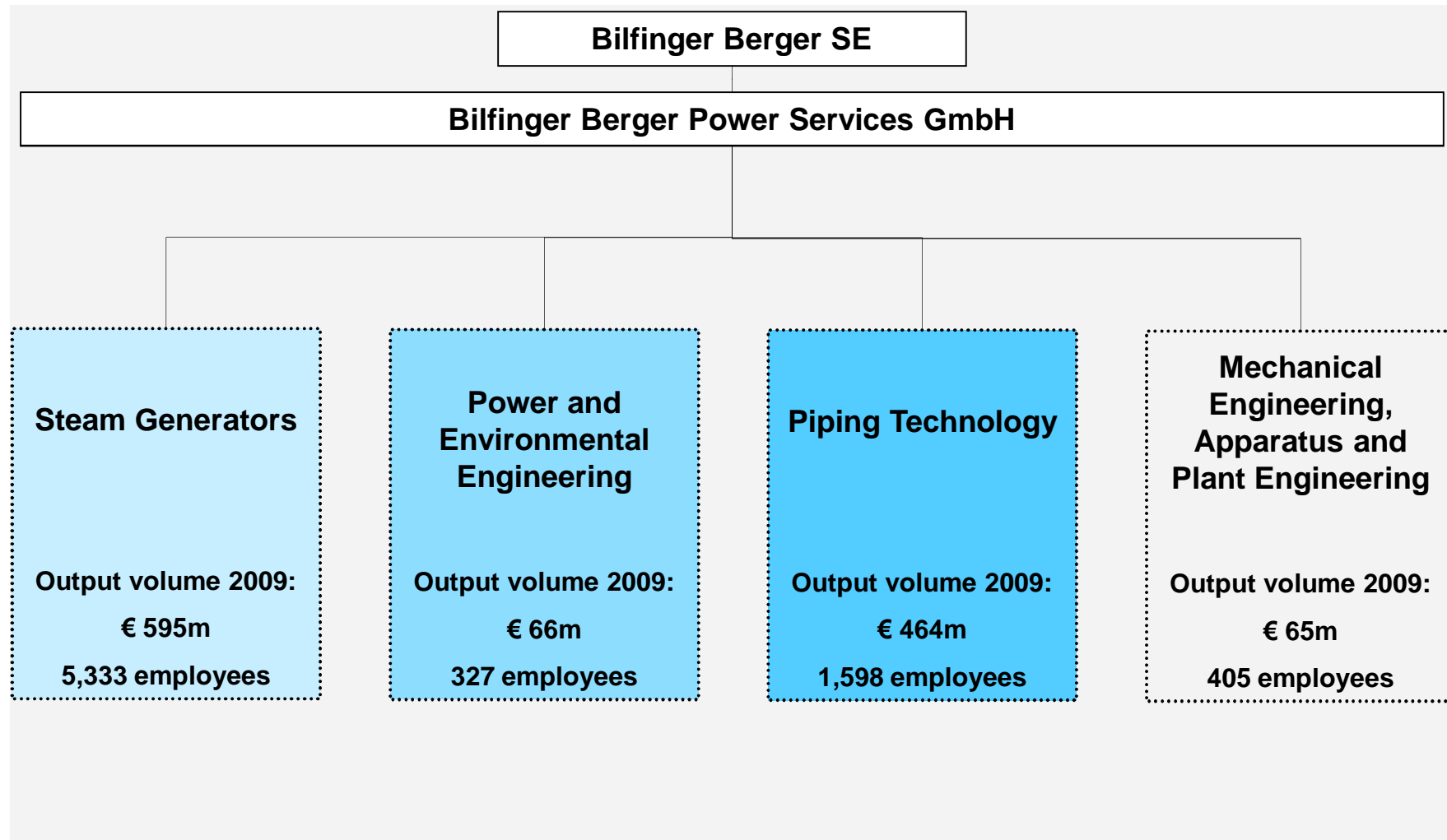
# 1.2 Organization

## Business Segments Bilfinger Berger 2010



# 1.2 Organization

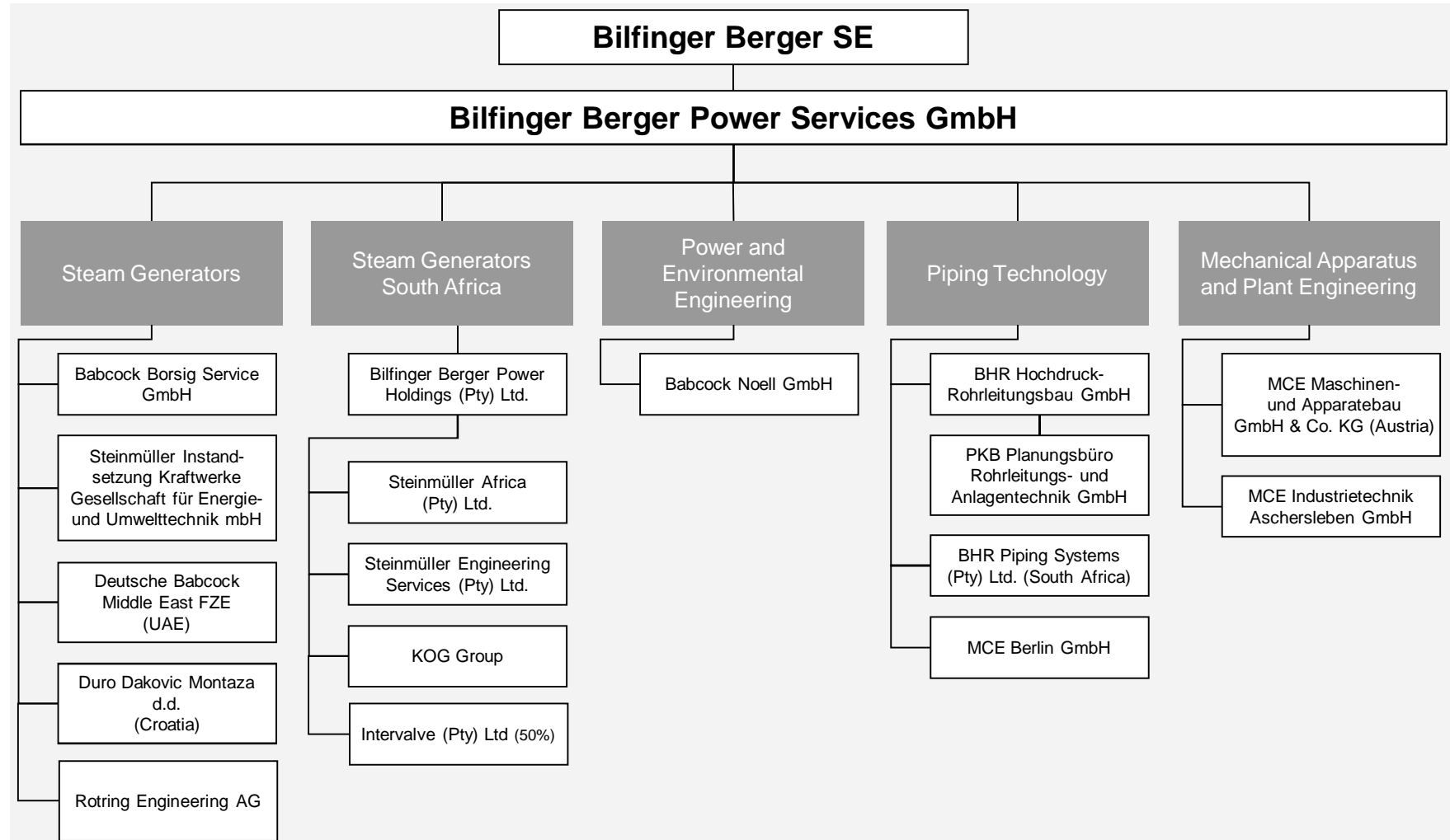
## Organization of Bilfinger Berger Power Services



Output volume before consolidation, pro-forma figures including MCE

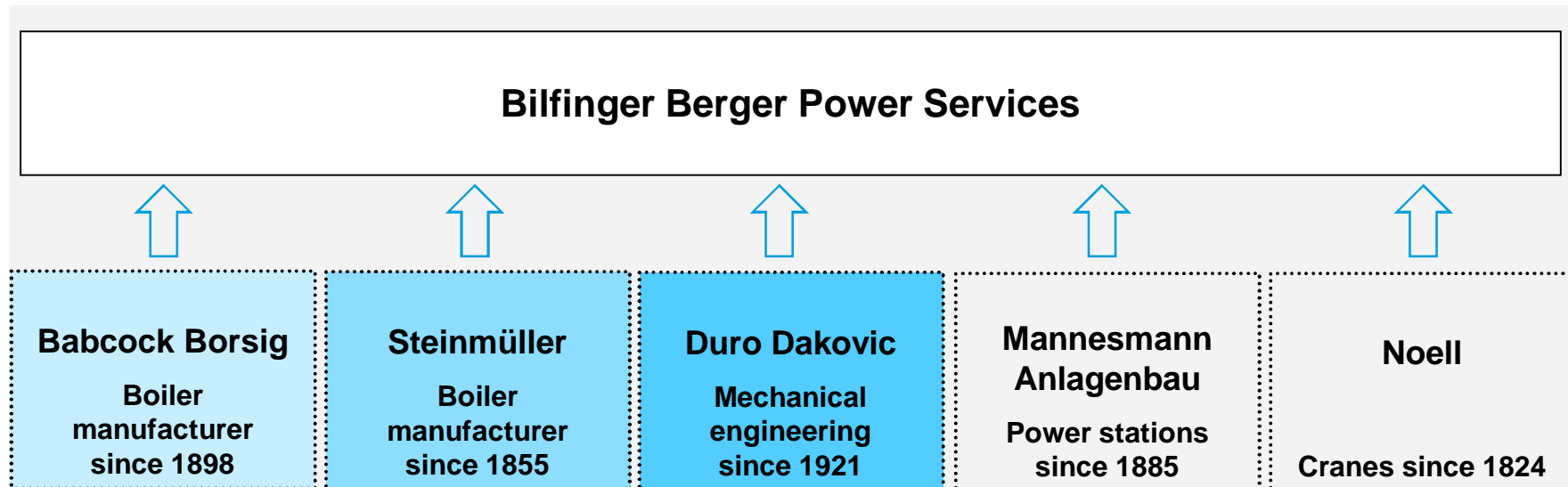
# 1.2 Organization

## Management Structure of Bilfinger Berger Power Services



## 1.2 Organization

Strong brand names in the industry under one roof

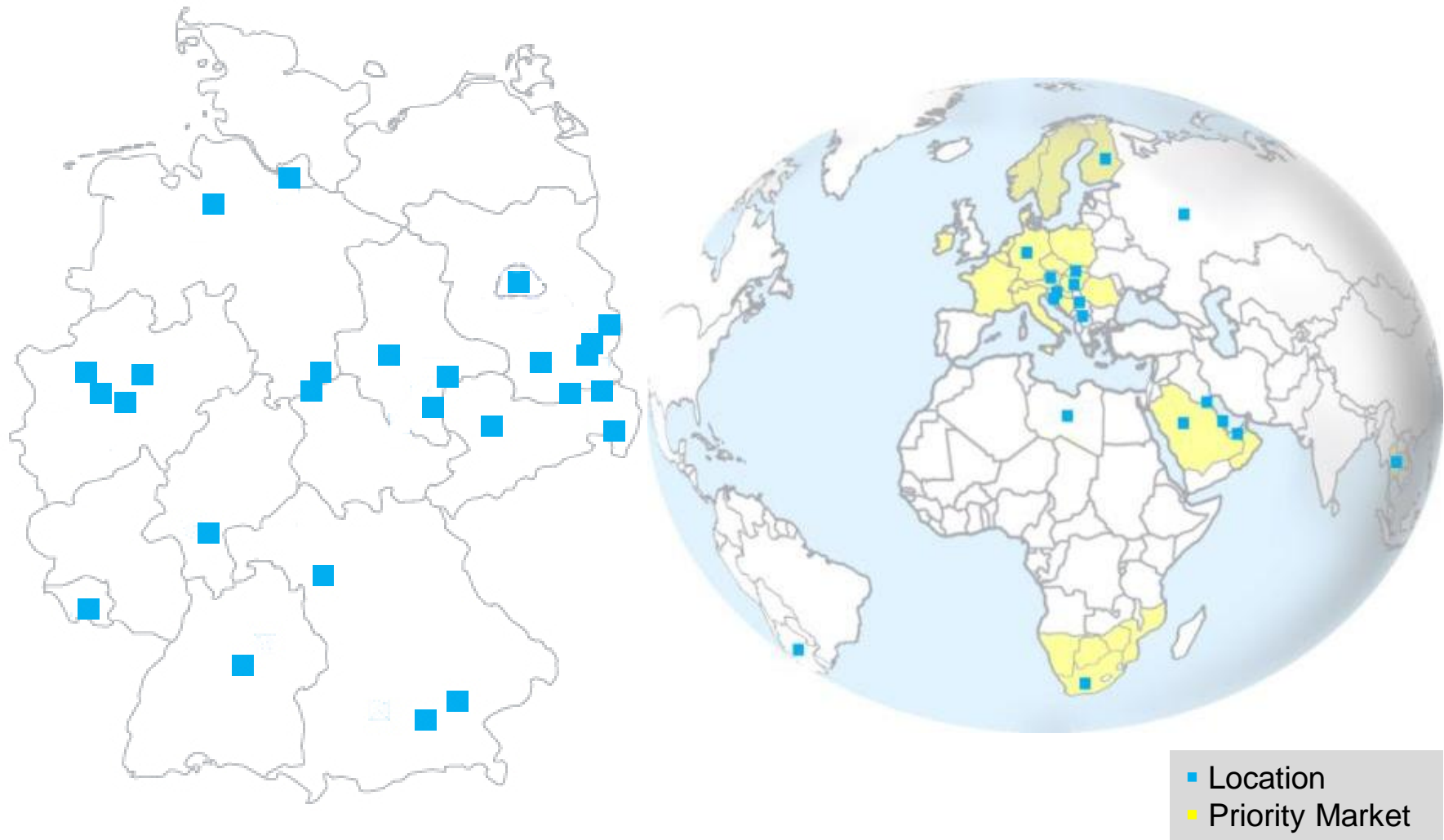


→ The following power station know-how is offered:  
Steam generator, flue gas cleaning, piping systems

→ Ensured through the following resources: Personnel, design and process technology, licenses, research & development, experience

# 1.2 Organization

## Locations Worldwide and Priority Markets

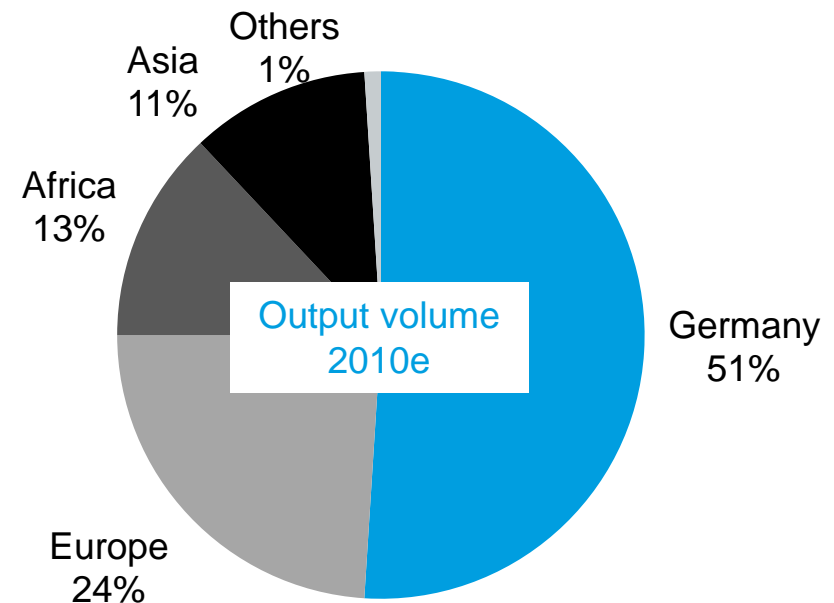




# 1.3 Key Figures

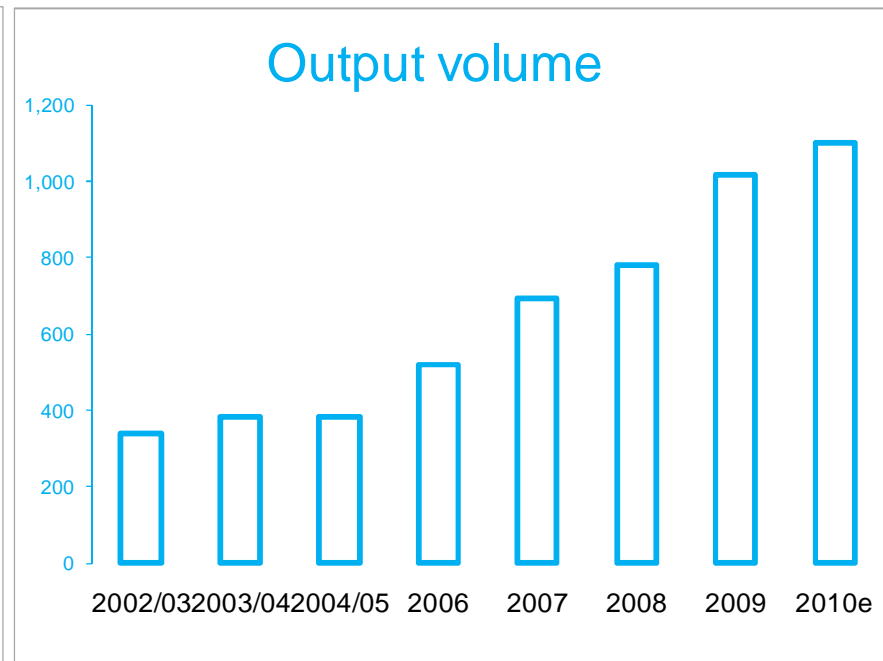
## Financial year 2009

	2009
Output volume	1,017
Orders received	1,024
Order backlog	1,181
EBIT	73
EBIT margin	7.2%
Employees	8,094



# 1.3 Key Figures

## Volume development of Bilfinger Berger Power Services



In € million

## 1.4 Business Segments

### I. Steam Generators

The service concept of the Group includes a broad engineering range as well as individual customer service:

- Construction
- Conversion
- Modernization
- Maintenance
- Repairs
- Construction components
- Spare parts service



## 1.4 Business Segments

### II. Energy and Environmental Technology

Construction of new flue gas desulfurization plants (FGD plants) based on a licence of Babcock & Wilcox.



## 1.4 Business Segments

### III. Piping Technology

Specialist for piping systems and components for maximum pressure and temperature.

Our customers are national and international companies of the power generation sector, the chemical and petrochemical industries as well as the steel industry.



## 1.4 Business Segments

### IV. Mechanical Engineering, Apparatus and Plant Engineering

- Components for:
  - Gas and steam turbines
  - Water turbines
  - Aerospace and aeronautics
  - Nuclear technology
- Machinery assembly
- Welded constructions
- Penstock
- Metallurgical plant machines
- Spare and wearing parts
- Special machinery

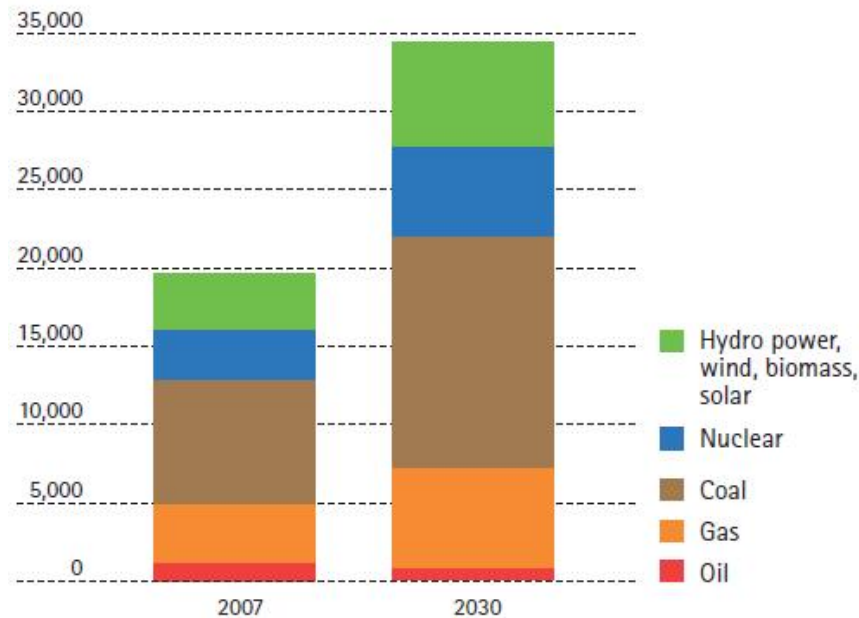


## 2. Business trends and drivers

The results of the World Energy Conference in Copenhagen, along with ongoing political discussions demonstrate that coal-fired power plants around the world continue to lose acceptance. Especially in Europe, the contribution of primary energy sources is changing:

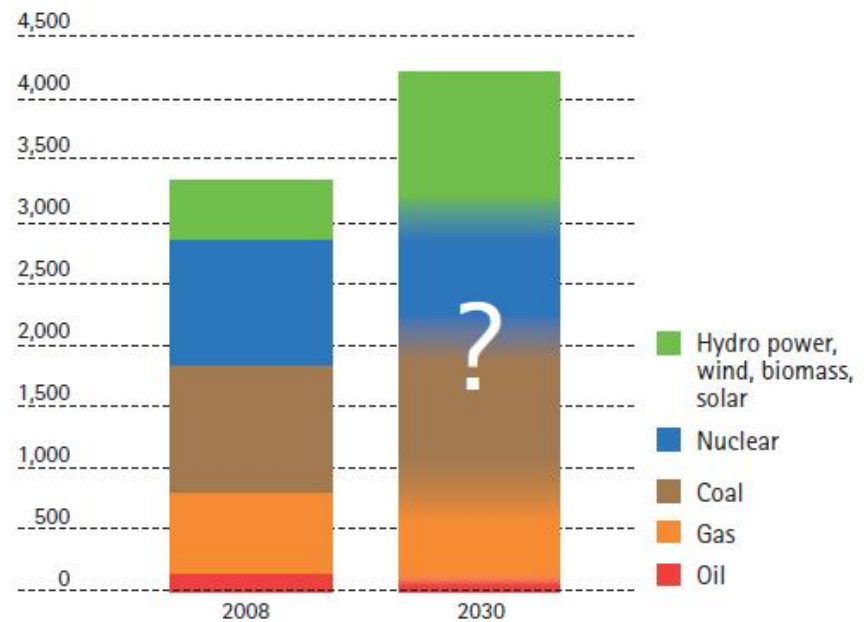
Expected growth in electricity generation in billion (10<sup>9</sup>) kWh worldwide

**+75 %**



Expected growth in electricity generation in billion (10<sup>9</sup>) kWh in the EU

**+25 %**



Source: Eurostat, IEA, VGB

## 2. Business trends and drivers

### Expected power plant new builds – excerpts from international studies

	Units	Type
<b>World</b>	5,000	Coal
<b>by 2030</b>	202	Nuclear
	3,250	Gas/GuD
<b>South Africa</b>	39	Coal
<b>by 2025</b>	2	Nuclear
	4	Gas/GuD
<b>India</b>	67	Coal
<b>by 2020</b>	10	Nuclear
<b>Russia</b>	95	Coal
<b>by 2020</b>	31	Nuclear
<b>Middle East</b>	94,289 MW	
<b>by 2019</b>		

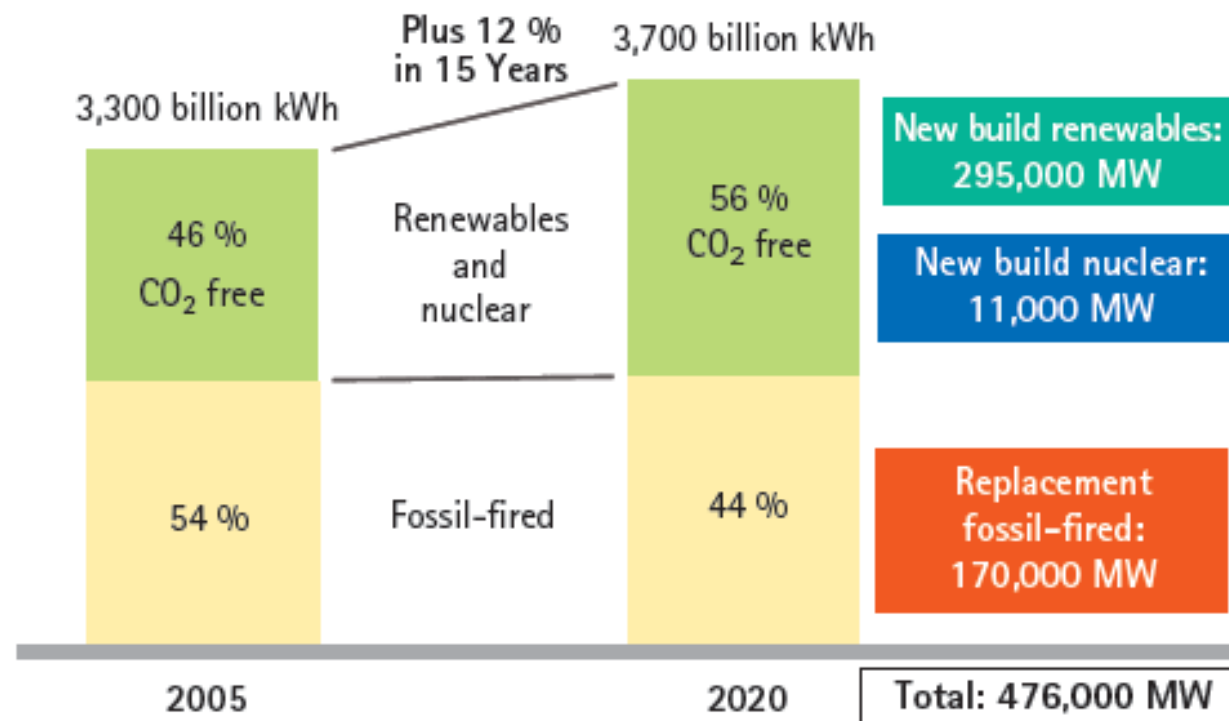
Sources/basis of calculation: Siemens, VGB, IAEA, Germany Trade & Invest, Sibirien Coal & Energy Company, long-term planning studies for the National Electricity Plan No. 12



## 2. Business trends and drivers

### Demand for New Power Plant Capacity (EU)

Considerations on the development of the electricity demand in EU-27 and necessary extension of the power plant capacities



Source: VGB

## 2. Business trends and drivers

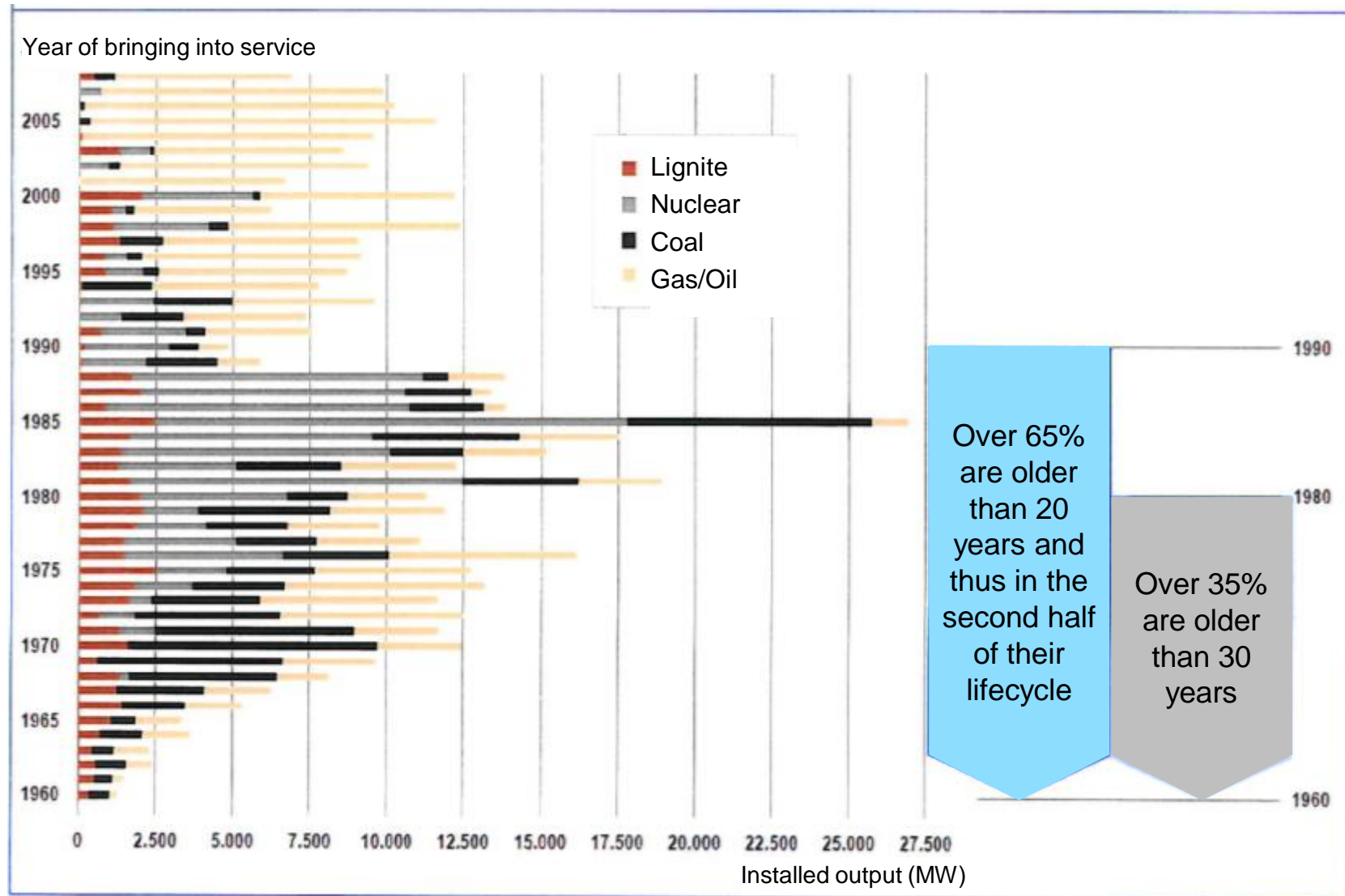
### Demand for New Power Plant Capacity (EU)

- According to current estimations, the electricity demand in the EU-27 will rise to roughly 3,700 billion kWh by 2020
- Due to age structure of the power generation portfolio and envisaged climate protection targets of minus 21% greenhouse gas emissions in the EU-27 emissions trading scheme, new capacity is needed by 2020:
  - a total of some 476,000 MW
  - fossil-fired power plants of some 170,000 MW
- To achieve renewables of 34%:
  - 295,000 MW additional renewables-based capacity
  - Through: wind, hydro power, photovoltaics, biomass, biogas, geothermal energy, solar power plants and marine energy.
  - And: comprehensive investments for extending the European electricity grid in order to cope with the in-feed of fluctuating renewables-based electricity is needed
- European climate protection targets will only be met if some 11,000 MW of nuclear power will also be newly built

Source: VGB

## 2. Business trends and drivers

### Age structure of power plants in the EU 27



Source: IEA, VGB, RWE Power

## 2. Business trends and drivers

### Regional characteristics and BBPS footprint: Europe

#### Europe (France, UK)

- Priority on nuclear power
- Experience from project business
- Experience with international major customers (RWE, E.on, Areva, EdF)

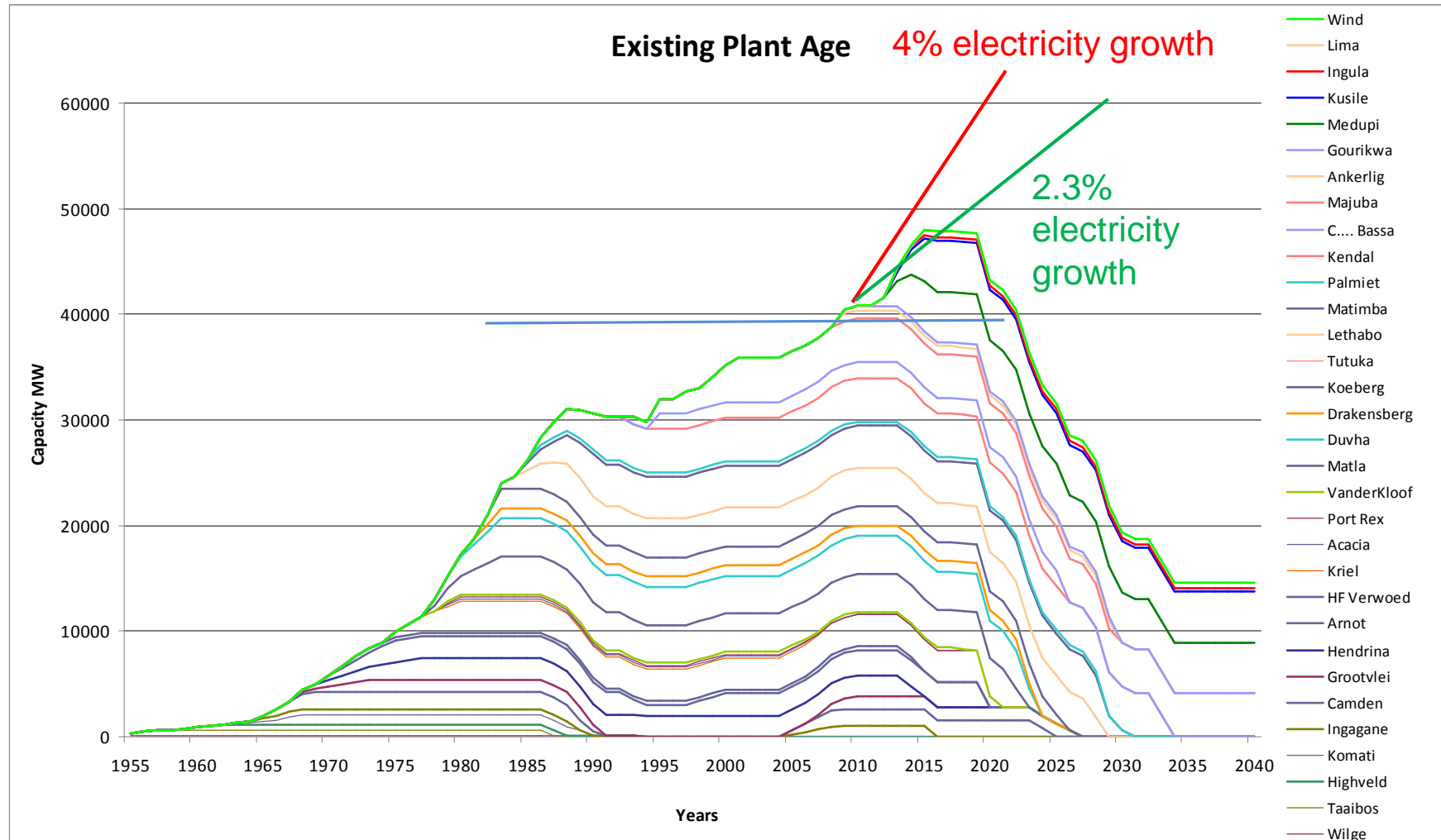
#### Eastern Europe

- Environmental measures at old facilities in EU candidate countries
- Experience from a large number of projects
- Currently with companies in Hungary, Serbia and Croatia
- Local partners to be brought on board

## 2. Business trends and drivers

### Regional characteristics and BBPS footprint: South Africa

The Multi Service Group.



## 2. Business trends and drivers

### Regional characteristics and BBPS footprint: South Africa

- Generating Capacity to be increased by more than 37,000 MW by 2025 to meet the 6% GDP target
  - Currently available Energy capacity is running below operating reserve
  - Eskom initiated capacity increase projects with a budget of over € 30 billion up to 2016 only
  - Government policy requires 30% of new build done by Independent Power Producers (IPPs)
  - Increased awareness of environmental responsibilities
    - Renewable energy
    - Energy efficiency
    - Flue Gas Desulphurization
  - Nuclear capacity build-up in preparation requires increasing maintenance
- Energy constraint means current power stations have to run longer
- IPPs create additional demand

## 2. Business trends and drivers

### Regional characteristics and BBPS footprint: Middle East

- Substantial oil and gas business
- Awarding of nuclear reactor contract to Koreans (differing safety standards)
- Many state companies; payment behavior and legal framework different
- Importance of seawater desalination (including small power plants) increasing
  
- UAE: Significant impact from economic crisis – unsatisfactory price level
- Saudi Arabia: Strong growth market, complex social and political conditions
- Qatar: Interesting growth market  
Joint venture (40%) running very well
- Kuwait: Stabilizing and growing market  
Currently only capacity for services business
- Others: Partial participation in services orders

## 2. Business trends and drivers

### Regional characteristics and BBPS footprint: Russia and India

#### Russia

- Giant market with tremendous modernization potential, ideal for existing product range of BBPS
- Market experience from long-term projects
- BBPS has already had various contacts with customers and local plant engineering companies
- There are still a number of entry barriers

#### India

- Initially, distribution of the BBPS product range
- Goal is the acquisition of a suitable local services company or, if none is available, the founding of a new company from our joint venture in Qatar (Indian staff)
- Rotring Engineering has experience and a sales office in the country



## 2. Business trends and drivers

### Regional characteristics and BBPS footprint: USA and South America

#### USA

- Acquisition of a mid-sized services company with a broad customer network which, as a result of the BBPS product range, would gain both in terms of profile and know-how
- Experience from earlier activities of the former Babcock Borsig Group
- This leads to opportunities for the acquisition of former associated companies
- Presence of other Bilfinger Berger Group companies

#### South America

- References and experience from former times (Babcock Borsig AG, Mannesmann Anlagenbau)
- Potential for the rehabilitation of steam generators from the former Babcock Borsig Group

## 2. Business trends and drivers

### Consequences for Bilfinger Berger Power Services

- Maintenance business
  - For the next years at a constant level – no new power plants in Germany means that the old ones have to run longer
  - In the long-term view a decline will occur because of the shutdown of old plants due to the commissioning of new power stations and due to more renewables
- Rehabilitation / modernization
  - Growth in Eastern Europe (with focus on new EU countries, Russia)
  - Growth in the Middle East (with focus on Saudi Arabia and Qatar)
- Construction of new plants
  - Selective participation at new build projects in the following areas: steam generation, piping systems and environmental technology in regions in which we already have capacities

#### → Conclusion:

Continued shift of business activities from Germany to international markets

# 3. International expansion and acquisition strategy

## 3.1 Regional interests

Target markets:

- UK
- France
- India
- Russia
- USA
- South America



■ Current locations  
■ Target markets

### 3. International expansion and acquisition strategy

#### 3.2 Growth perspectives

Potential to expand the product portfolio through know-how transfers

	Germany	Western Europe	Eastern Europe	South Africa	MENA	Others	New regions
<b>Steam Generator</b> incl. Turbine service	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b> incl. Turbine service	<b>X</b>	<b>India</b>
<b>Energy- &amp; Environmental Technology</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>UK</b>
<b>Piping Technology</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>USA</b>
<b>Mechanical, Apparatus and Engineering</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Russia</b>
<b>Decentralized Power Plants</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>Latin America</b>
<b>Seawater Desalination</b>					<b>X</b>	<b>X</b>	

Black = Current

Blue = Target via Know-how-transfer

## 3. International expansion and acquisition strategy

### 3.3 Screening criteria for acquisitions

1. Extension of service range along the value chain of the power station process, e.g. turbine service, piping, steam generator, companies in the area of the cold end
2. Development of new products for future markets, e.g. decentralized energy generation, CCS
3. Regional expansion
4. Strengthening existing activities

## Strong arguments for efficiency increase in power plants!

Thank you for your attention!

