

Engineering Excellence has now become

Engineering Excellence³



ThyssenKrupp
Industrial Solutions



ThyssenKrupp

ThyssenKrupp – Business Areas

Key indicators – fiscal year 2012/2013*

Business Areas



Components Technology		Elevator Technology		Industrial Solutions		Materials Services		Steel Americas		Steel Europe	
Sales (€ mill)	5,712	Sales (€ mill)	6,155	Sales (€ mill)	5,641	Sales (€ mill)	11,700	Sales (€ mill)	1,867	Sales (€ mill)	9,620
EBIT** (€ mill)	244	EBIT** (€ mill)	675	EBIT** (€ mill)	640	EBIT** (€ mill)	236	EBIT** (€ mill)	-495	EBIT** (€ mill)	143
Employees	27,737	Employees	49,112	Employees	18,841	Employees	26,978	Employees	4,112	Employees	26,961



*) Continuing operations (after reclassification of Steel Americas) before consolidation

**) Adjusted before consolidation



ThyssenKrupp Industrial Solutions

The new dimension in Plant Engineering

Business Area	ThyssenKrupp Industrial Solutions			
Business Unit	<p data-bbox="316 415 568 454">Marine Systems</p> 	<p data-bbox="683 415 1020 454">Process Technologies</p> 	<p data-bbox="1064 415 1412 454">Resource Technologies</p> 	<p data-bbox="1499 415 1812 454">System Engineering</p> 
	<p data-bbox="239 648 407 679">Submarines</p> <p data-bbox="239 701 455 732">Surface Vessels</p> <p data-bbox="239 753 361 785">Services</p>	<p data-bbox="678 648 1006 718">Fertilizer/ Coke Plant Technologies</p> <p data-bbox="678 739 954 771">Chemicals/Oil & Gas</p> <p data-bbox="678 792 799 823">Services</p> <p data-bbox="678 845 890 876">Implementation</p>	<p data-bbox="1064 648 1159 679">Mining</p> <p data-bbox="1064 701 1172 732">Cement</p> <p data-bbox="1064 753 1182 785">Services</p>	<p data-bbox="1454 648 1713 679">Assembly Systems</p> <p data-bbox="1454 701 1740 732">Car Body Technology</p> <p data-bbox="1454 753 1746 785">Lightweight Solutions</p> <p data-bbox="1454 806 1636 838">Forming Dies</p> <p data-bbox="1454 859 1686 891">Testing Solutions</p>
				

ThyssenKrupp Industrial Solutions

Resource Technologies at a glance

ThyssenKrupp Industrial Solutions			
Business Area	Resource Technologies	Process Technology	System Engineering
Business Unit	Material Systems	Facilities	Plant Engineering
Technologies	Automation	Control	Service
Product Lines	Services	Contract	Service
Markets	Construction	Contract	Service
Markets	Construction	Contract	Service



Mining

Open Pit Mining

Bucket wheel excavator systems

Belt conveyor systems

In-pit crushing systems

Mineral Processing

Crushing & grinding plants

Crushers, mills, screens, feeders, separators

Pyroprocessing & metallurgical injections systems

Materials Handling

Stockyard & port handling systems for bulk materials

Cable cranes

Drive units and gearboxes

Cement

Raw material preparation

Clinker production

Cement manufacturing

Factory automation

Services

Service centers

Spare parts management

Maintenance and repair

Upgrading

Plant optimization

Operation & Maintenance

Consulting

Training

Life-cycle services

Resource Technologies

More than 3,000 built plants and components around the globe

Bucket wheel excavators



Spreaders/Belt wagons/
Tripper cars



Mobile and
semi-mobile crushing plants



POLYSIUS QUADROPOL
Roller mill



Stockyard handling systems



Port handling systems



Wagon tippers



Cement kiln lines



Shiploader (KPC)



Crushers



Screens



Barge unloader (Bontang)



Cement Industry

Design Capacity

Clinker : 50.610.000 ton/year

Cement : 60.996.000 ton/year

Production

Clinker : 44.918.632 ton/year

Cement : 57.738.716 ton/year

Import

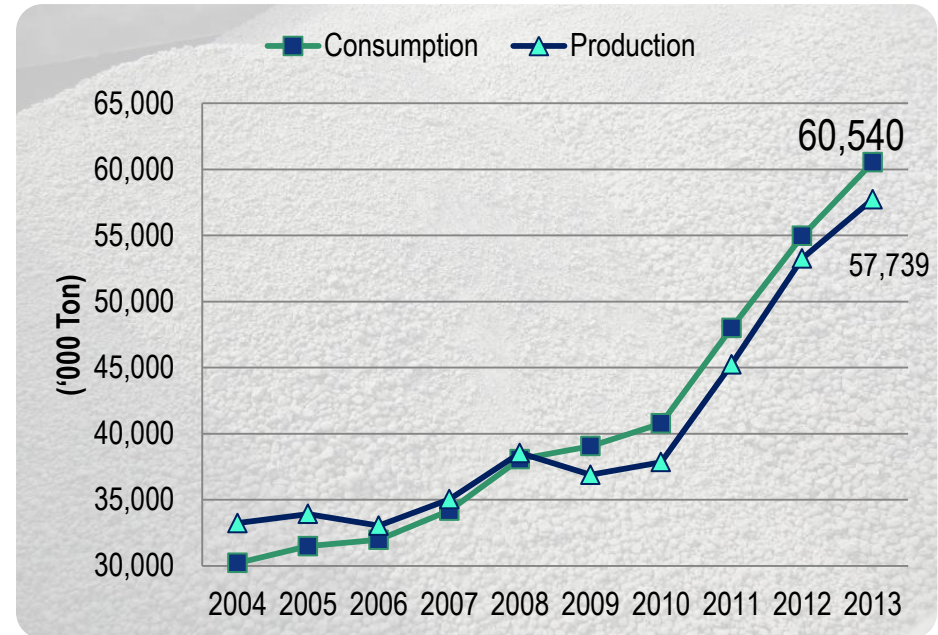
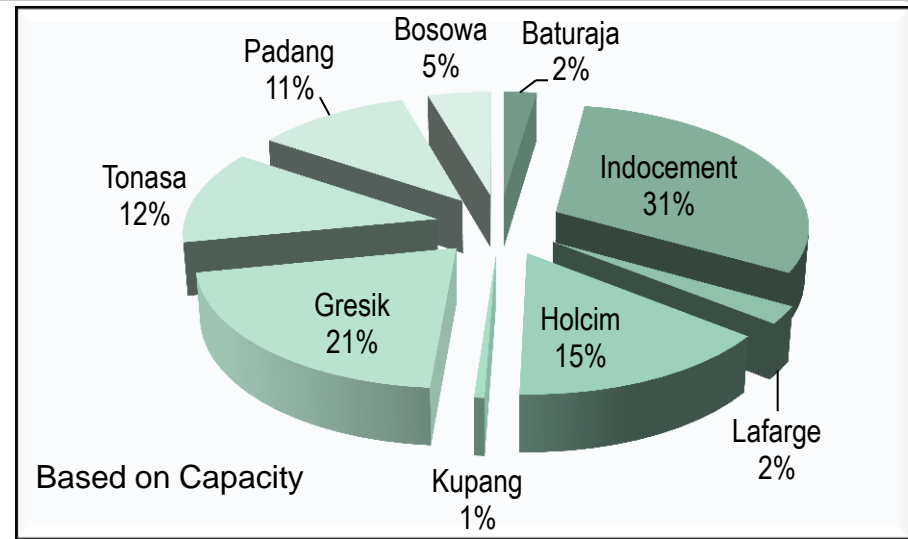
Clinker : 860.000 ton

Cement : 1.092.879 ton

Domestic cement consumption

60.540.536 ton

Cement Consumption per capita 243 kgs



Coal Industry

Production 2013

Total : 254 Mio Ton

Overseas Sales: 193 Mio Ton

Domestic Sales: 54 Mio Ton

Total Coal Resources :

161.34 Billion Tons

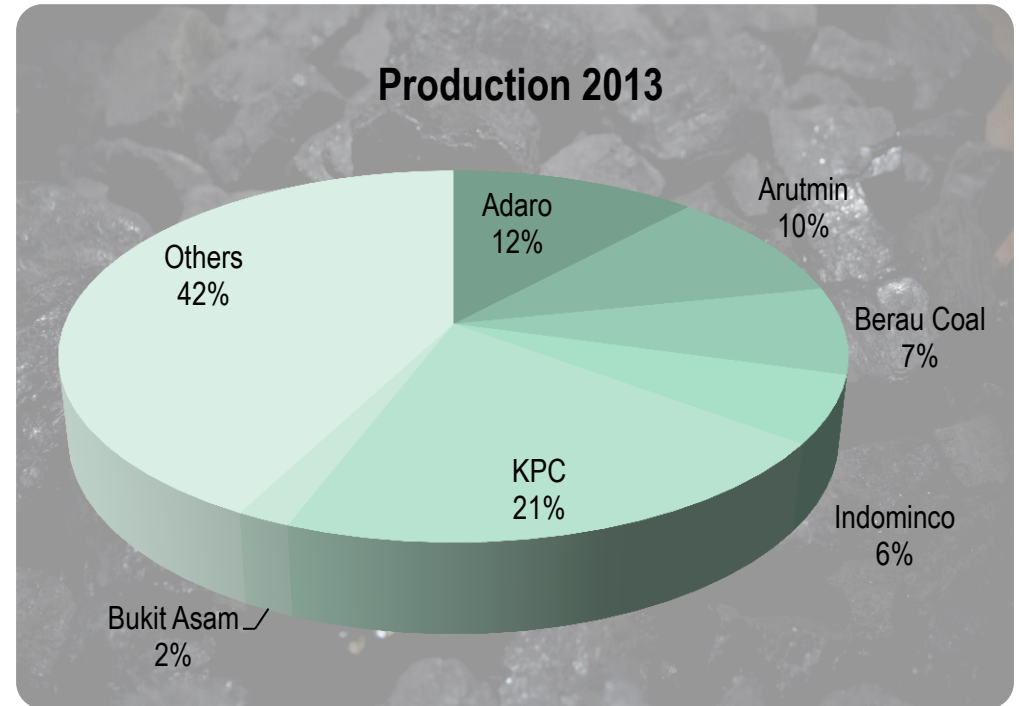
(Lignite 20%, Subbituminus 66%, Bituminus 14%)

Total Coal Reserve :

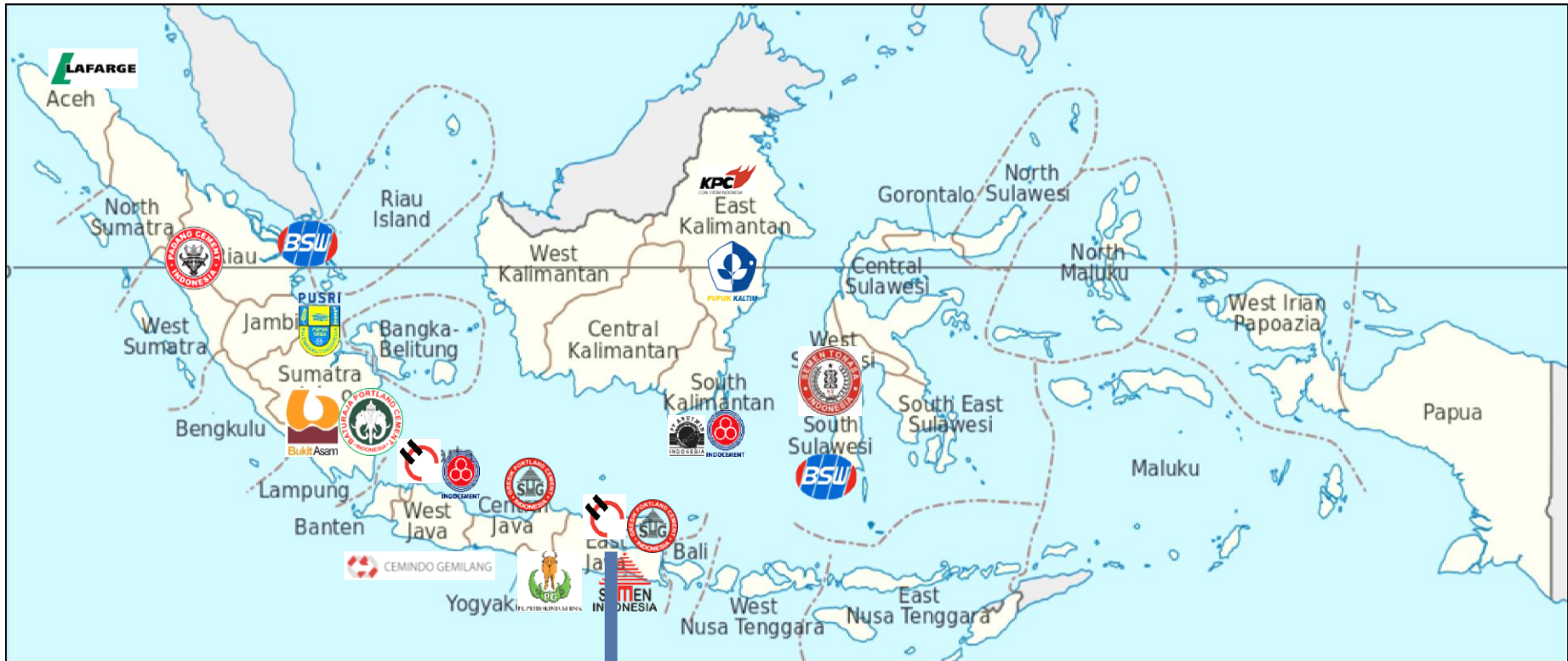
28.17 Billion Tons

(Lignite 29%, Subbituminus 60%, Bituminus 11%)

Source: Geological Agency 2012 and other sources



PT. ThyssenKrupp Polysius Indonesia



Turnkey construction of
2 fully equipped cement
production lines

Capacity: 4,000 tpd
of clinker each



PT. ThyssenKrupp Polysius Indonesia

Client:	Project Name:	Location:
Holcim Indonesia	TUBAFA 1	Tuban – East Java



Country: **Indonesia**

Contract Year: **2011**

Snapshot:

Original EP based tender

Polysius offered client attractive turn-key solution

First EPC order for cement plant in Indonesia

Total Order Volume: €220 million

Capacity: 4.000 tpd clinker



TKPI established in 2011 to handle the local purchasing and construction activities

From 3 employees in March 2011, TKPI grew to 32 employees in December 2013

PT. ThyssenKrupp Polysius Indonesia

Client:

Holcim Indonesia

Project Name:

TUBAFA 2

Location:

Tuban – East Java

Country: **Indonesia**

Contract Year: **2013**



Snapshot:

Due to the growing demand and positive outlook of the cement industry in Indonesia, client orders second line turn-key with Polysius.

Total Order Volume: €200 million



In order to handle the construction of the second line, TKPI has grown to 51 employees in Jakarta, Surabaya and on-site.

Engineering Procurement Construction (EPC)

Turn-key projects organization

Engineering (E)



Procurement (P)



Construction (C)



Engineering by TKIS Beckum
Civil Engineering partially
by TKIS Vietnam

Main Challenges:

Low-cost competition
Adapting to local requirements
and regulations, especially in civil
engineering

...

EU and International procurement
by TKIS Beckum
Local Procurement by TKPI

Main Challenges:

Import regulation
High cost of local procurement
Timely delivery
Quality

...

C managed by TKPI and
works subcontracted to local
companies audited by TKPI

Main Challenges:

Quality vs. Capacity
Scheduling
Cash Flow
HSE

...

Thank You for Your Attention!



ThyssenKrupp
Industrial Solutions



ThyssenKrupp