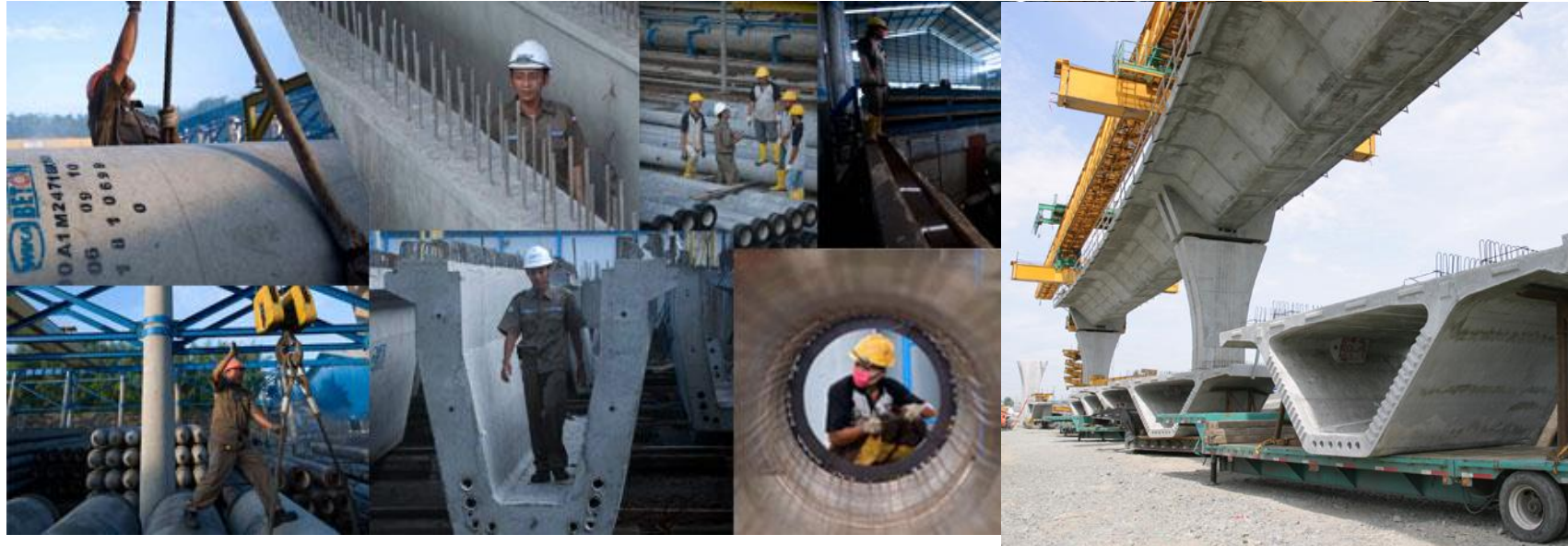


# Overview of case studies: Indonesia



**Case study: PT. Wika Beton**  
(March 2011)

# Summary

- Example of application of the ISO methodology
  - PT. Wika Beton, concrete and pre-stressed concrete company
- Credits
  - BSN Project team: Mr. I Nyoman Supriyatna, head of R&D center, Ms. Untari Pudjiastuti, deputy head, Mr. Teguh Pribadi, assistant
  - Mrs. Ida Busneti, Lecturer at the Faculty of Economics, Trisakti University, Jakarta, working on a doctoral degree
  - Mr. Reinhard Weissinger, ISO, Manager of Research, Education, and Strategy

# The company overview - 1

- PT. Wika Beton is the first SNI Award Winner (issued in 2008 by BSN) in the category of Large Service Business for its record and performance in implementing Indonesian National Standards (SNI).
- PT. Wika Beton was established in 1997 and is part of the state-owned PT. Wijaya Karya
- It has been involved in large-scale infrastructure projects (bridges, motorways, major energy plants, canals etc.)

## The company overview - 2

- Around 22% of the domestic market in Indonesia
- Suppliers are domestic (around 50 main suppliers) and customers also (with 1% of overseas customers)
- Company has 911 employees in 8 plants and 10 sales offices, head office is in Jakarta
- For the assessment only 1 plant was selected which is located in the city of Bogor (60 km south of Jakarta). The revenues of this plant have been around 150 Bill. IDR/16 Mill. USD (in 2006) and increased to close to 350 Bill. IDR/38 Mill. USD (2009), but dropped to around 210 Bill. IDR/23 Mill. USD (in 2010) due to a decrease in the construction development in Indonesia

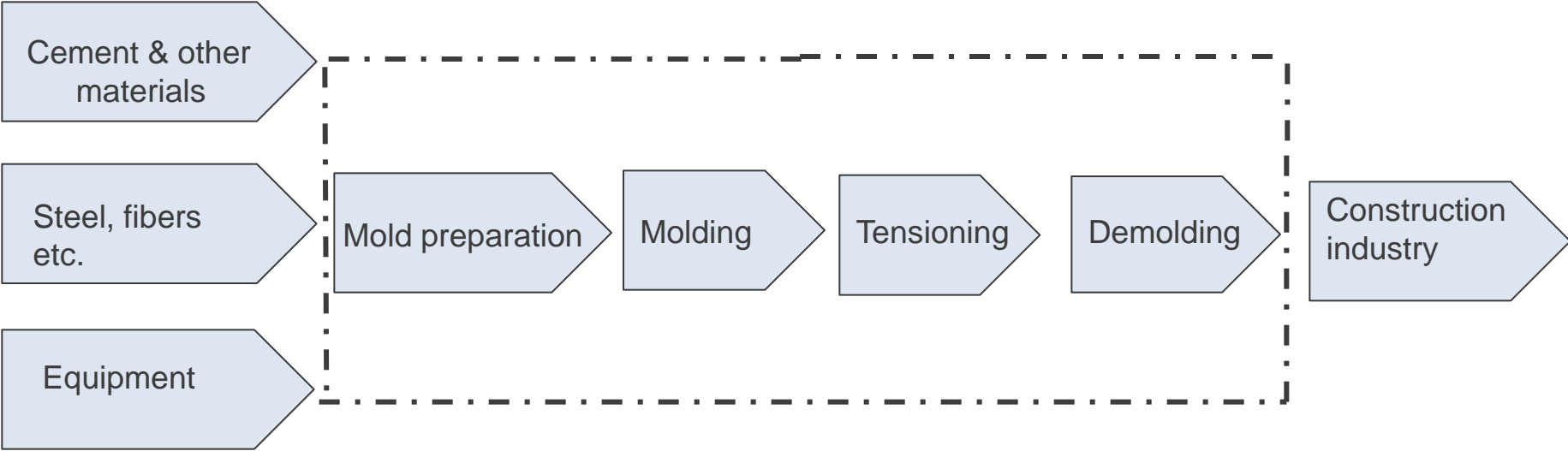
## The company overview – 3

- The company serves mainly the construction industry
- The company produces various types of concrete products, such as
  - **precast concrete** (concrete structures formed in reusable molds to place the structure into position)
  - **prestressed/post-tension concrete** (concrete to resist higher tensile pressure, used e.g. for beams, floors, bridges)

# Industry value chain (simplified)

SUPPLIERS

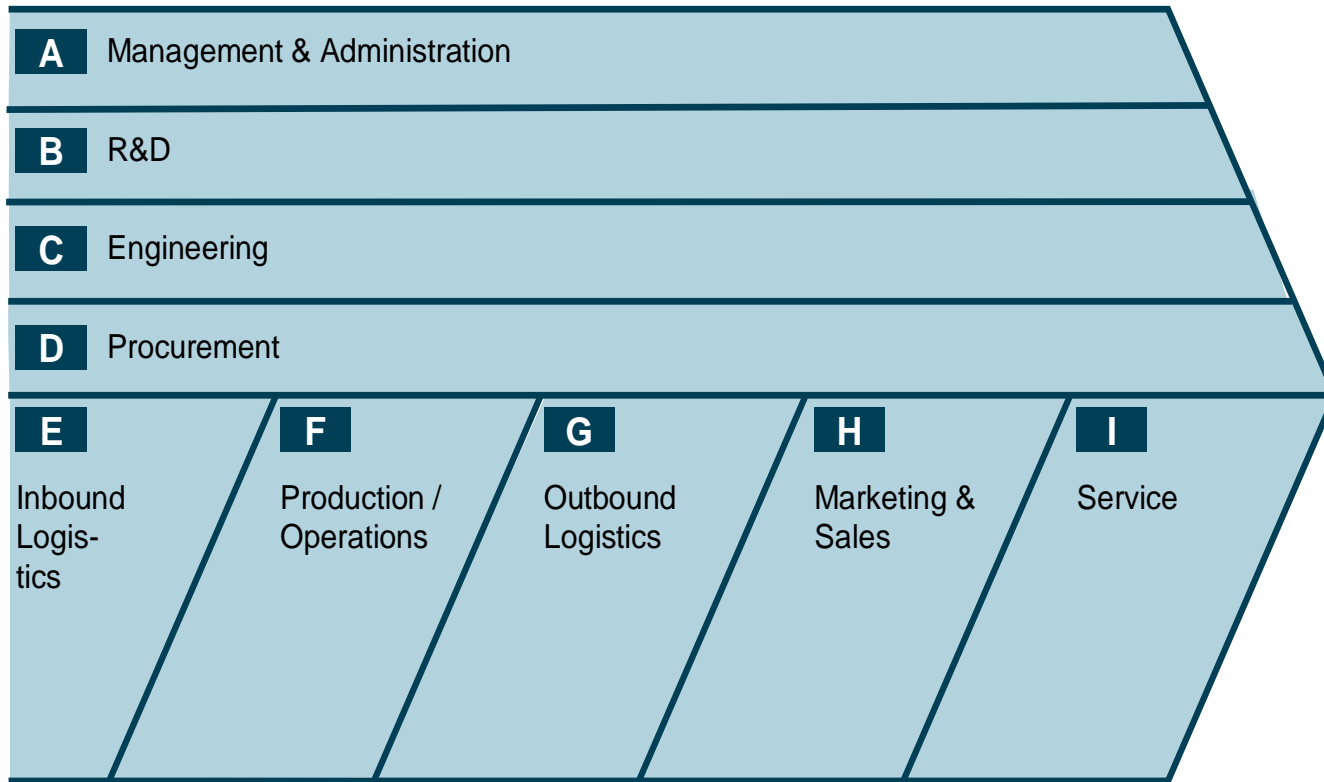
CUSTOMERS



- · - · - · = PT. Wika Beton



# Model of a company value chain (M. Porter)



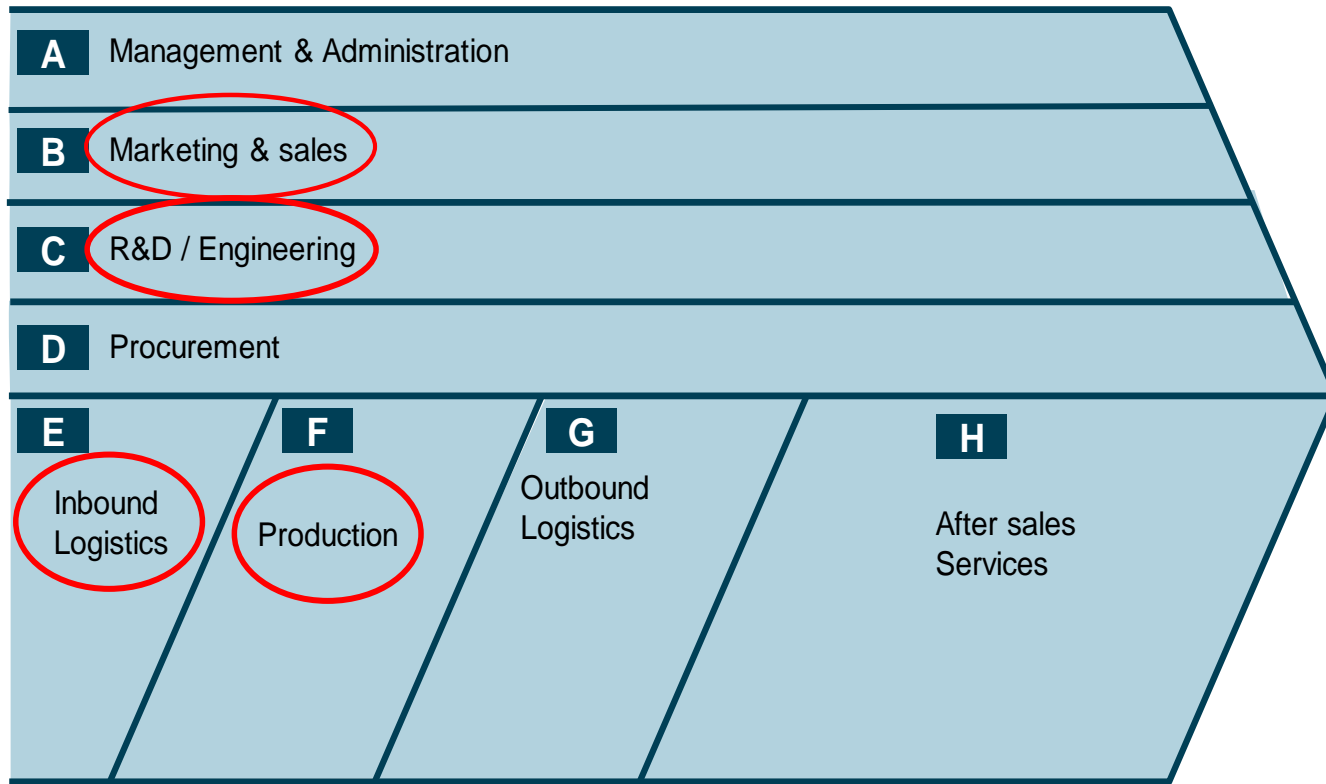
A company value chain & the business functions « A » to « I » that constitute the Value Chain

# Preliminary analysis of the Standards Impact

- The company has a library of many technical standards, primarily product and testing standards. There are some 30 external standards (mainly ISO, ASTM, SNI, JIS) that have a key role. The company is certified against ISO 9001:2008
- Based on a preliminary analysis (supported by the Standards Impact Map) the following business functions have been selected for the assessment:
  - **Research & Development / Engineering**
  - **Inbound logistics**
  - **Production**
  - **Marketing & Sales**



# Model of a company value chain (M. Porter)



A company value chain & the business functions « A » to « I » that constitute the Value Chain

# Research & Development / Engineering

- With the use of standards, the search for information is much easier and labor costs can be saved
- Certain types of research has been standardized, in particular results from basic research in product development
- Information transfer between departments is easier and more reliable
- Total savings (per year): **IDR 201'010'271**

# Inbound logistics

- The key step in Inbound logistics is that a standards-based quality assurance is undertaken for all supplied materials before they are mixed and introduced into the production process
- Wika Beton is now able to reduce the power tolerance from  $> 50 \text{ kg/cm}^2$  to  $> 20 \text{ kg/cm}^2$  and has thereby achieved significant savings
- Total savings (per year): **IDR 341'716'540**

# Production

- Certain technological improvements (e.g. removal of the steam curing process) resulted in significant savings
- Other improvements have occurred in wire caging replacing the original manual process with an electronic one
- Machine time could be reduced resulting in energy savings
- Total savings (per year): **IDR 418'779'020**

# Marketing & Sales

- For the preparation of sales contracts, systematic reference is made to standards and key information from standards is available through IT-systems
- The consistent use of standards resulted in a 0%-rejection rate of products by customers. Due to the policy of PT. Wika Beton determining the products rejected total of 0.13%, therefore this amount is become saving.
- Total savings (per year): **IDR 90'202'415**

# Standards EBIT impact of the selected business functions (2010)

Business Functions	Contribution	% of total contribution
R&D / Engineering	201'010'271	0,08%
Inbound logistics	341'716'540	0,14%
Production	418'779'020	0,17%
Marketing & Sales	90'202'415	0,04%
<b>Total</b>	<b>1'051'708'246</b>	<b>0,43%</b>

- The contribution from standards amounts to **0,43%** of the average company sales or turnover (calculated on the basis of an average of the last five years)

# Thank you for your attention!



<http://www.iso.org>