



Tianjin Cement Industry Design and Research Institute Co., Ltd.

Sinoma Tianjin / TCDRI

- ★ **Comprise of TCDRI and CBMI in Year 2010**
- ★ **Major engineering company around the world engaged in cement industry.**
- ★ **Human resources:**
 - **Total employees: about 2,500**
 - **Technical staff: about 2,000**
- ★ **2011 sales revenues: 800 Million USD**
- ★ **2012 sales revenues: 1 Billion USD**



TCDRI



CBMI

MAJOR OVERSEAS CLIENTS



HEIDELBERGCEMENT

Heidelbergcement: Russia, Tanzania, China, Burkina Faso, Ghana, Indonesia



Holcim

Holcim : Morocco, Tanzania, Hungary



Axim
Italcementi Group

Italcementi : Spain, Bulgaria



LAFARGE
bringing materials to *life*

Lafarge : China, South Africa, Zambia, Uganda, Ecuador, Vietnam



CEMEX
Building the future™



Votorantim
Cimentos

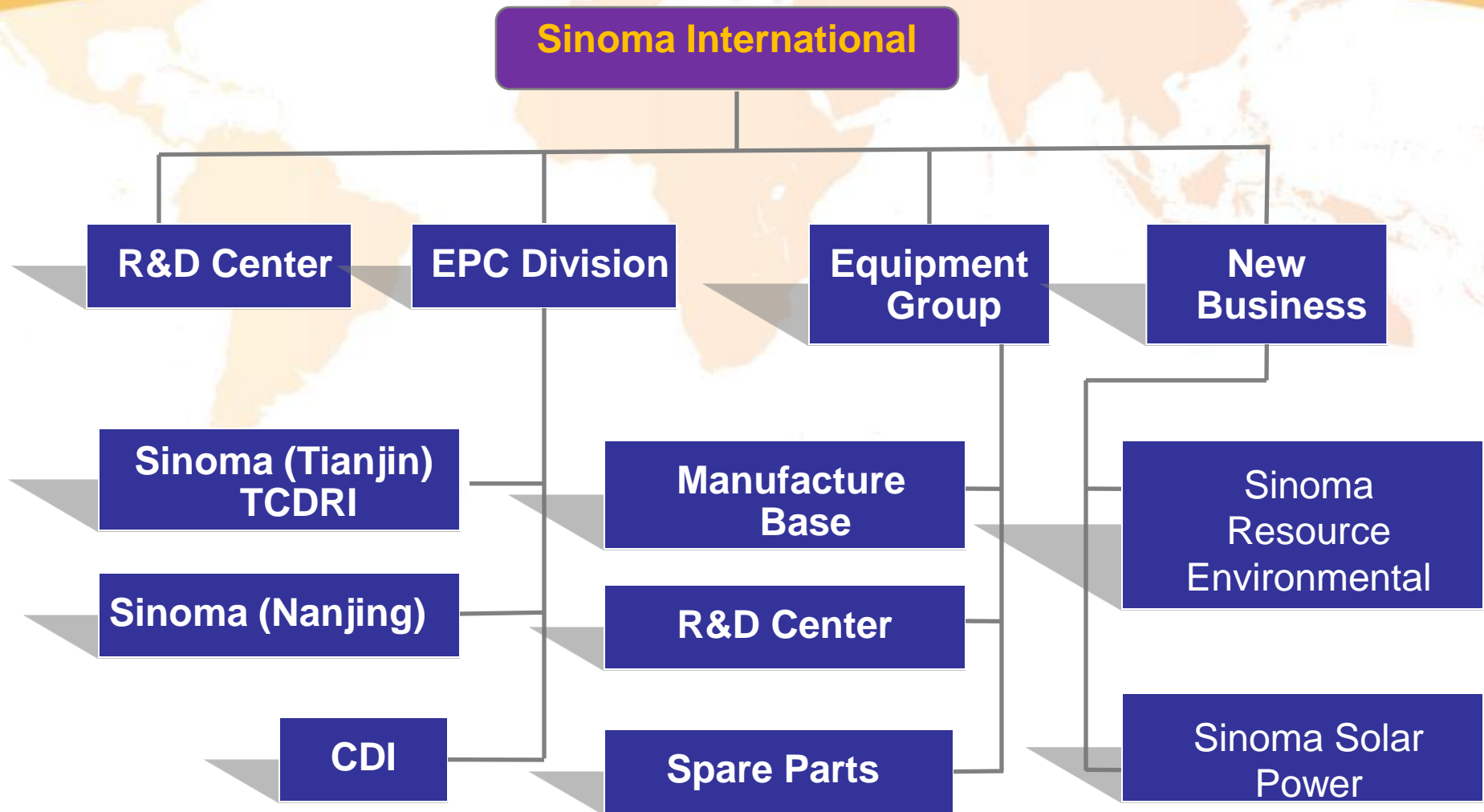


COLACEM
Qualità del fare

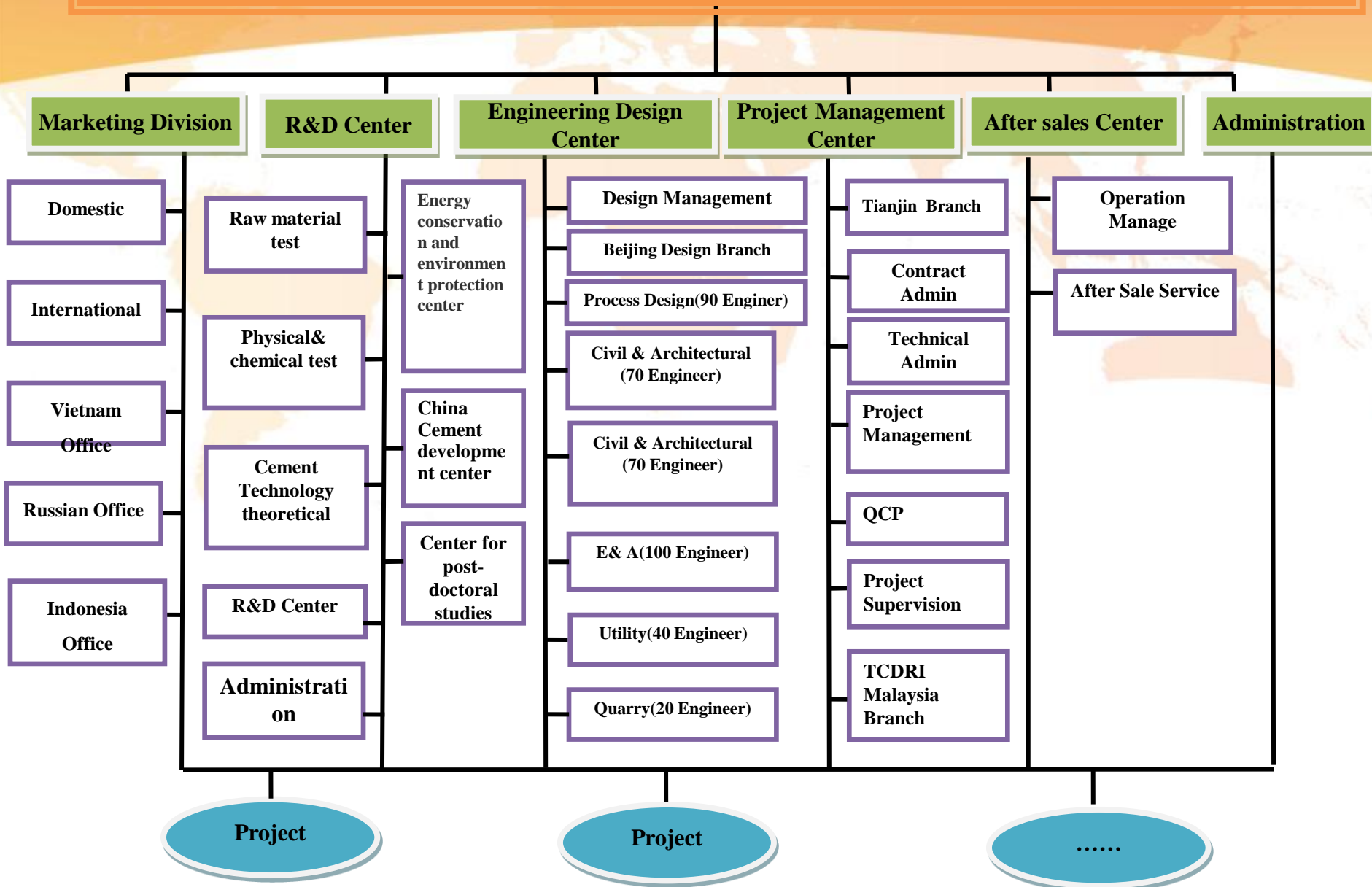


DANGOTE
GROUP

Present structure



Sinoma International (Tianjin) / TCDRI



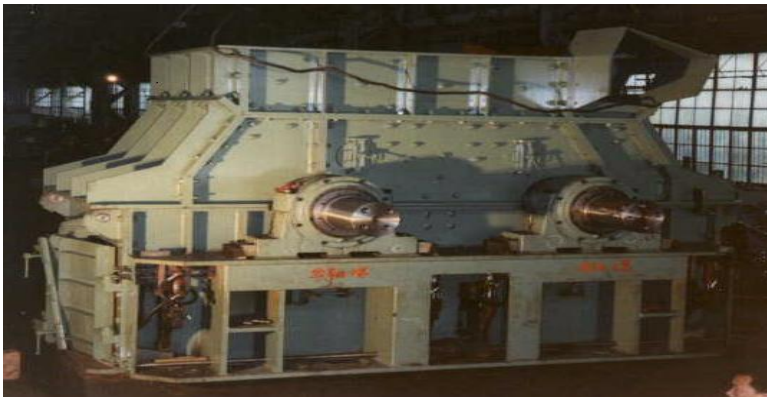
Equipment Manufacture



Large Capacity Storage



Stacker and reclaimer



Hammer Crusher

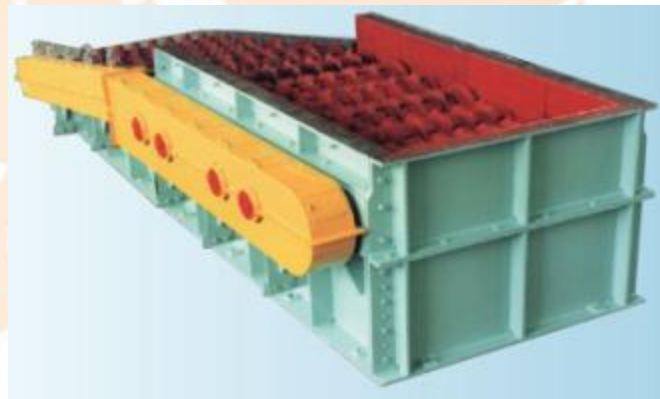


Roller Crusher

About Us – Equipment Manufacture



Apron Feeder



Wrobbler Feeder



Bag Filter



Burner

About Us – Equipment Manufacture



Vertical Roller Mill



Roller Press



Tube Ball Mill

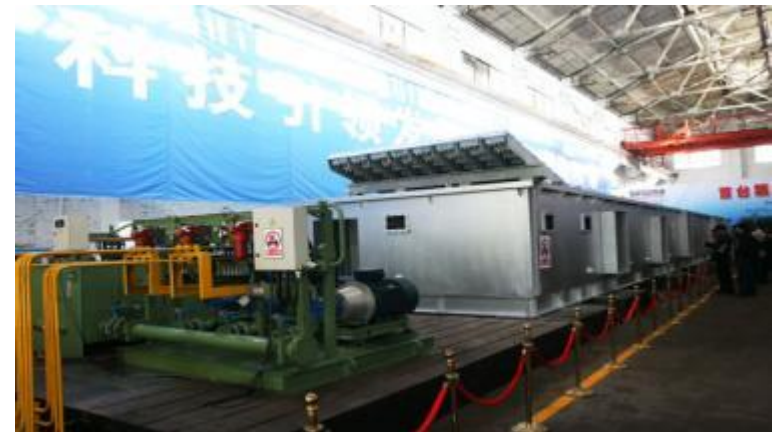
Equipment Manufacture



Preheater System



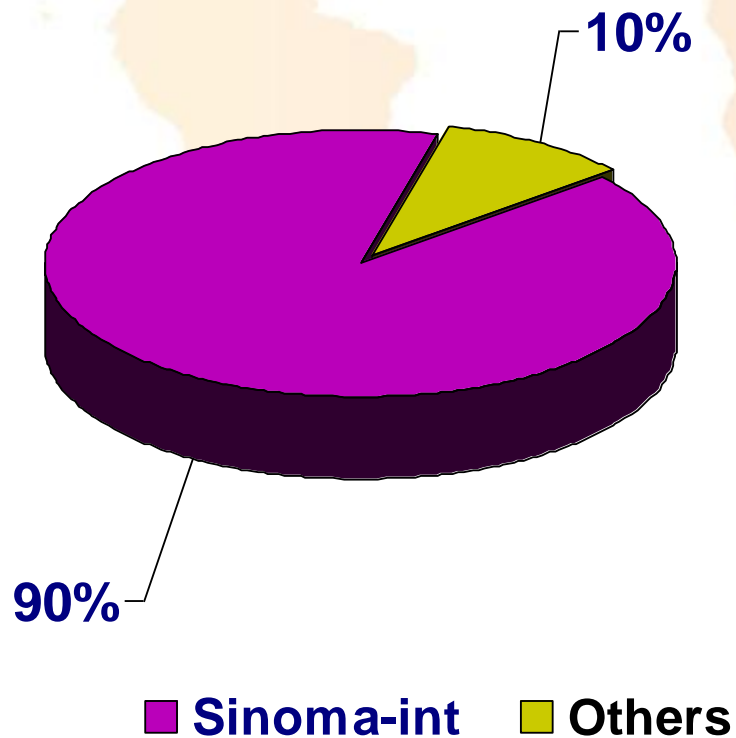
kiln



Forth Generation Cooler

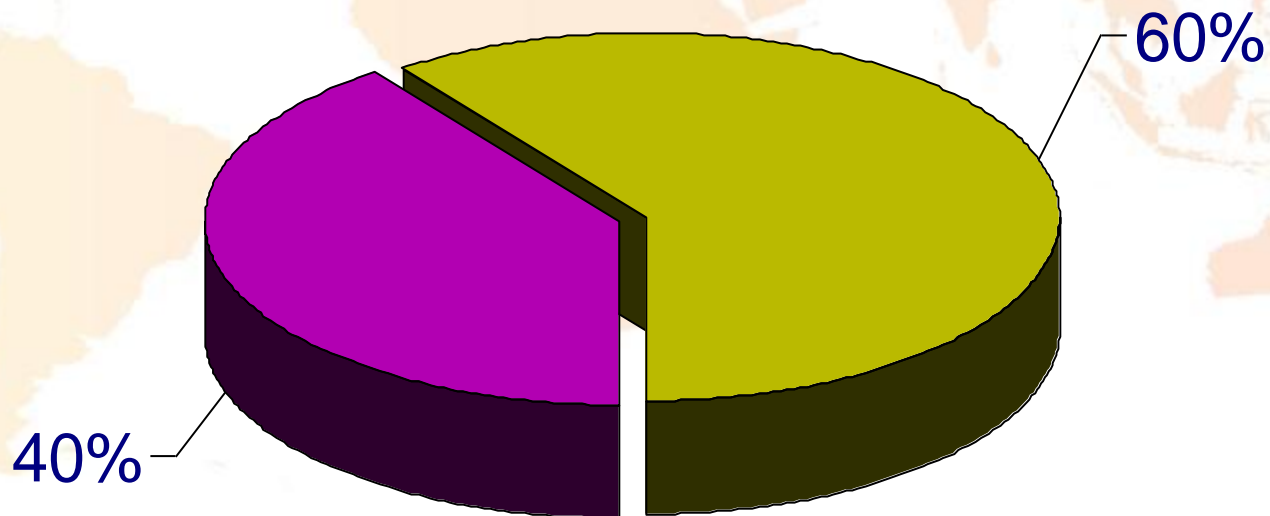
Market Share -- China

Domestic market share



Sinoma-Int has a domestic market share of over 90% in China both in supply as well as in installation.

Market Share – Outside China



- Overseas Project by Sinoma-int
- Project by Others

Main Business

Ultimate Solution for Cement Manufacture

- **R&D for New Technology and New Equipment**
- **Engineering Design**
- **Equipment Manufacture and Procurement**
- **Civil Construction and Installation**
- **Plant Commissioning**
- **Turn-key Project (EPC)**
- **After Sale Services**
 - **Operation and Maintenance**
 - **Spare Parts Supply**

Over 80% revenue from EPC contract!

A stylized world map in light orange and white tones serves as the background for the slide. The map is centered on the Atlantic Ocean, showing the continents of North America, South America, Europe, Africa, Asia, and Australia.

CENTRE OF RESEARCH AND DEVELOPMENT

Human Resources and Main R&D Directions

**8 Doctors and 36 Masters(Total 56
Persons)**

- Pyro – System
- New Equipment
- New Technology
- Environment Protection
- Upgrading of Cement Plant

Experiment Facilities

**Suspending state
test-bed**



**Cold state
test-bed**



**Hot state
test-bed**



TECHNICAL UPGRADING SOLUTION OF NEW DRY PROCESS CEMENT PRODUCTION LINE PYRO-SYSTEM

TARGETS:

- **To increase capacity;**
- **To improve performance;**
- **To save energy and reduce emission;**
- **To use low quality fuel;**

SOLUTIONS

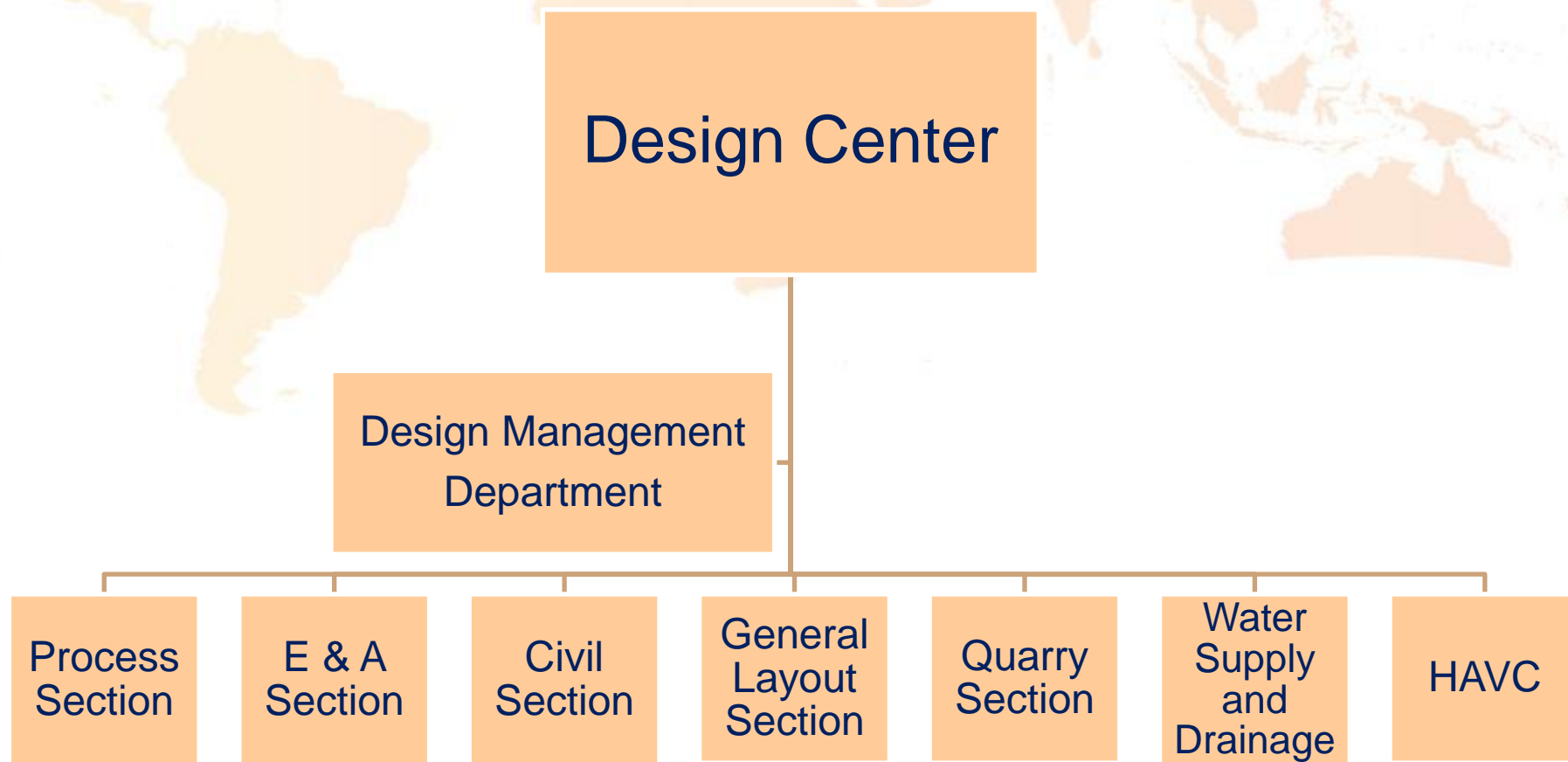
- **Precalcining system;**
- **Preheater system;**
- **Kiln system;**
- **Kiln burner;**
- **Cooler;**
- **Coal grinding;**
- **By pass system;**
- **VVVF;**
- **Others;**



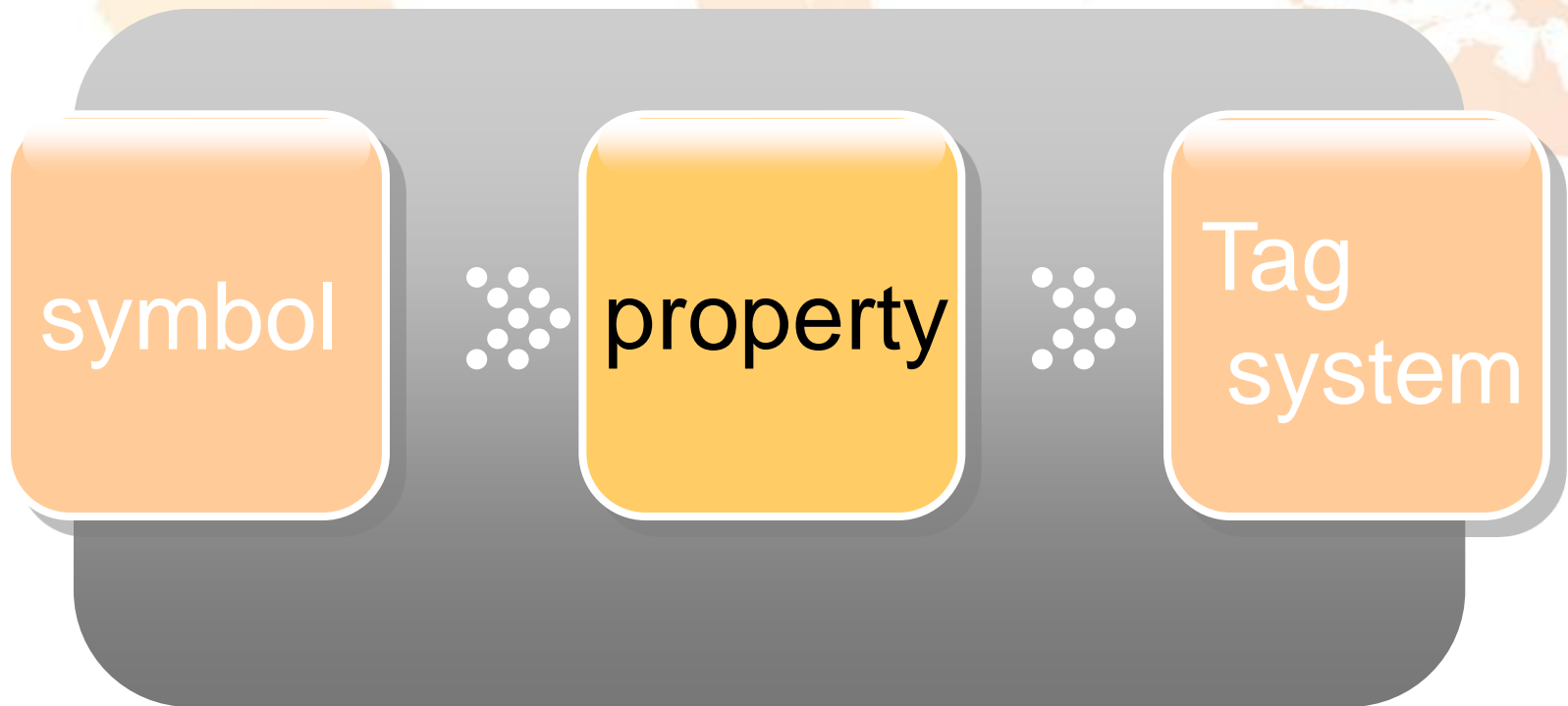
A stylized world map in shades of orange and white, serving as a background for the slide.

CENTRE OF ENGINEERING DESIGN

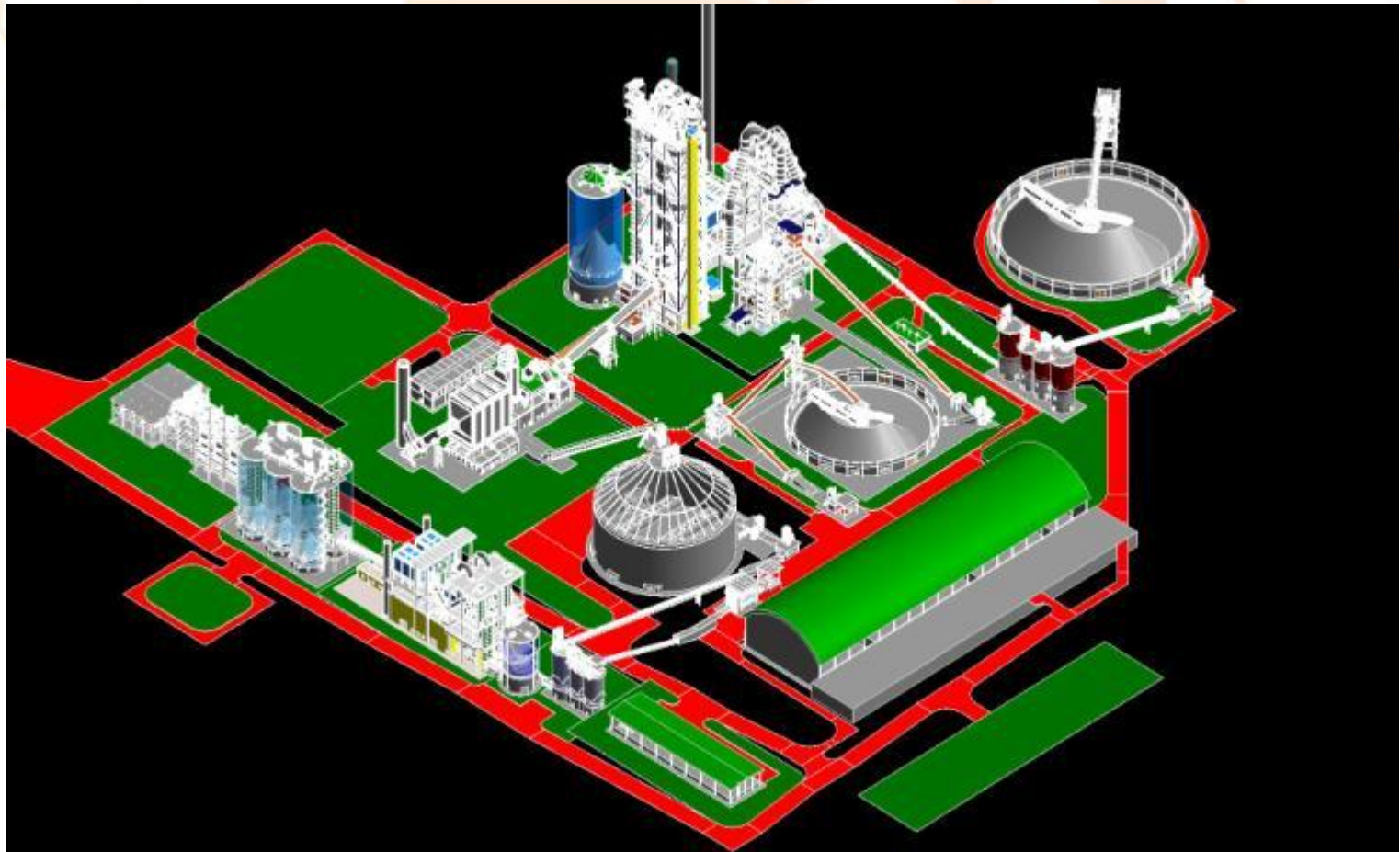
Human Resources and Structure



Process and Instrument Diagram



Building Information Modeling 3D Engineering



Advantage of 3D Engineering

- Visible
- Interlinking – Easy amendment and less mistake
- Accurate BoQ statistics



Civil Engineering with International Code and Standard

US Standard

International Building Code-2006
Minimum Design Loads for Buildings
and Other Structures

Building Code Requirements for
Structural Concrete and
Commentary

Specification for Structural
Steel Buildings

ASTM

European Standard

EN 1991: Actions on structures

EN 1992: Design of concrete structures

EN 1993: Design of steel structures

EN 1994: Design of composite steel and
concrete structures

EN 1995: Design of timber structures

EN 1996: Design of masonry structures

EN 1997: Geotechnical design

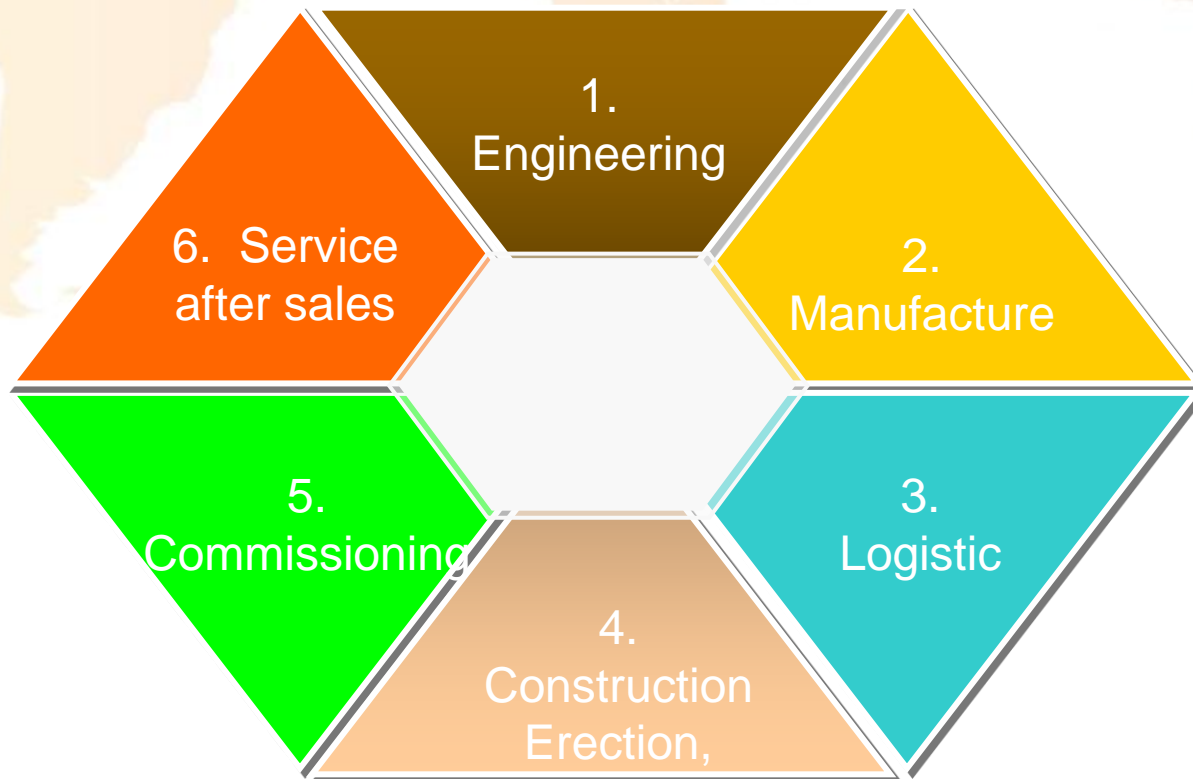
EN 1998: Design of structures for
earthquake resistance

EN 1999: Design of aluminum structures

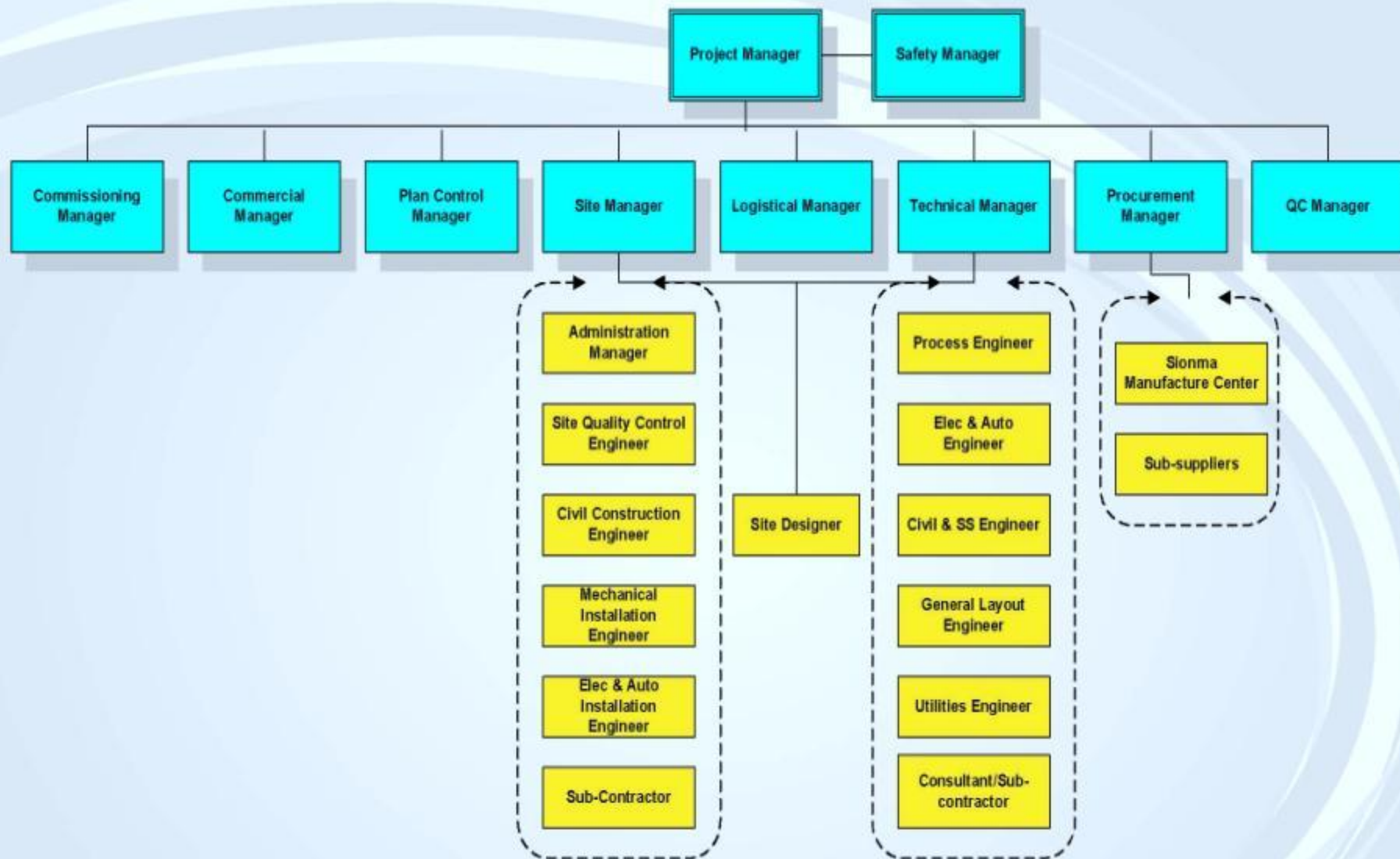
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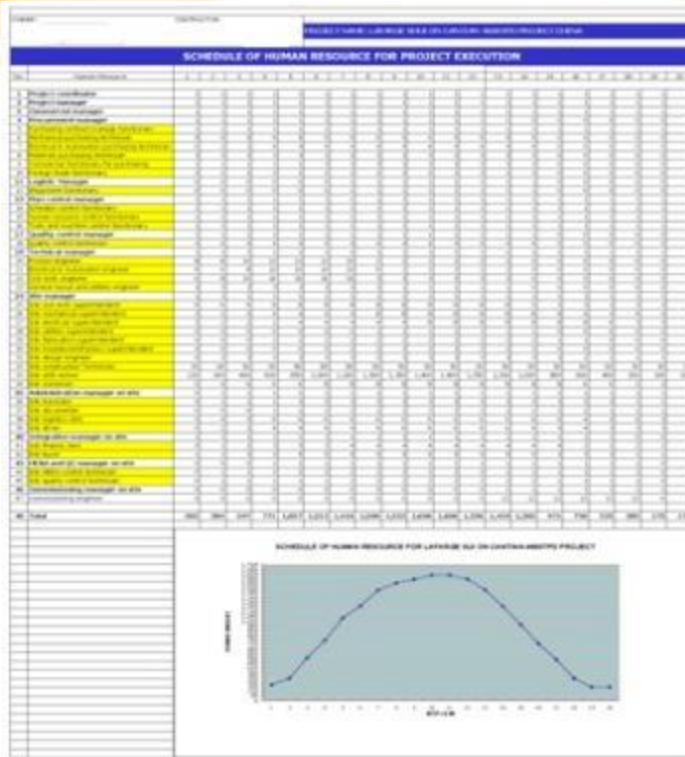
CENTRE OF PROJECT MANAGEMENT

As a turn-key project should include engineering and design, purchasing equipments and structure steel manufacture, shipment and inland transport, civil construction, mechanical erection and electrical installation, commissioning and after sale seivices



Project Organization Chart





Human Resource Plan

Description	Specification	Unit	Qty	Legend
Main measuring equipment	Electric total station	GTS-711S	set	1
	Laser theodolite	DJJ2-2	set	4
	Common theodolite	J3-2	set	4
	High-precision water level	AT-G2	set	2
Earthwork machine	Grain	PC200	set	4
	Loader	ZL50	set	5
	Bulldozer	TY220	set	5
	Dump truck	QD351. 8t	set	20

Construction Machine Proposal

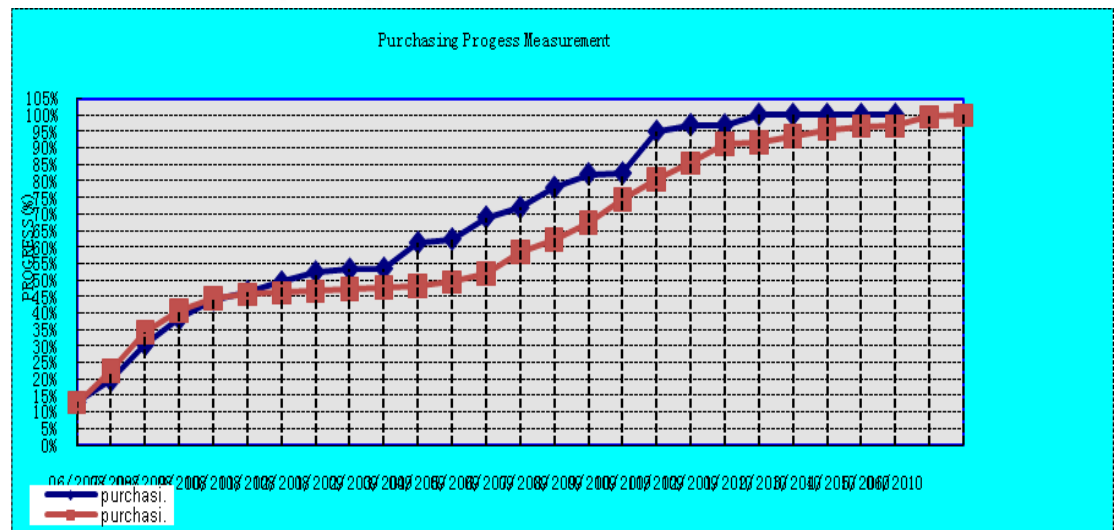
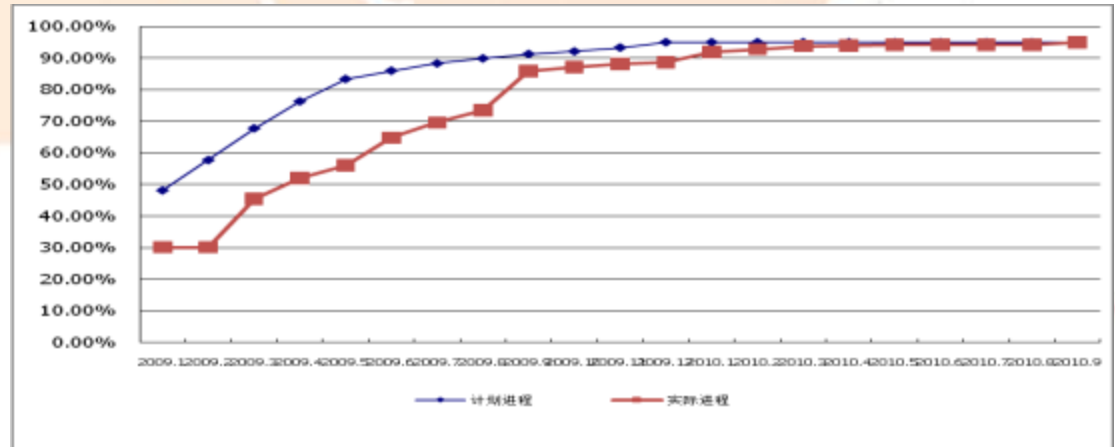


Time Schedule



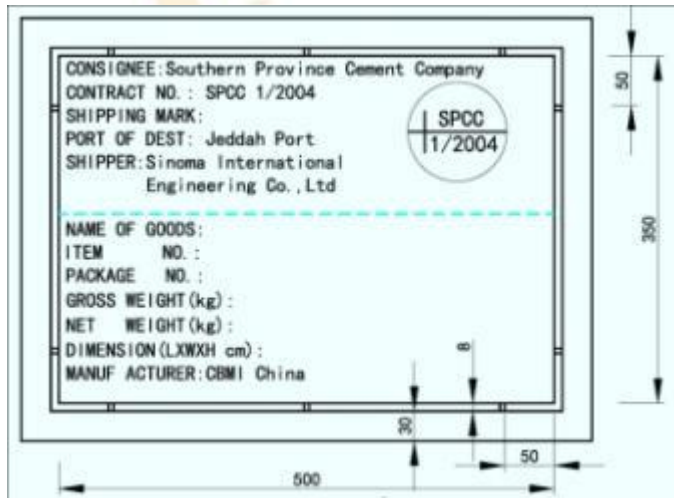
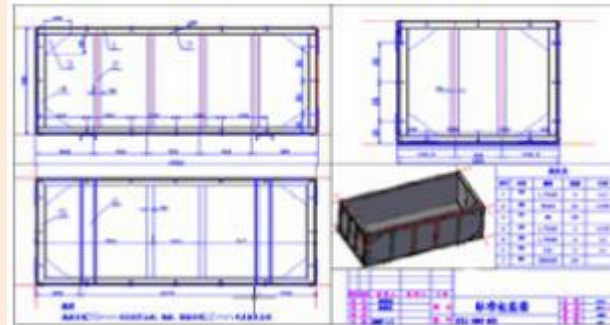
Site Construction Layout

Analyze the actual progress the timely from the schedule curve and forecast the future trend, measures can be taken to ensure the contract schedule

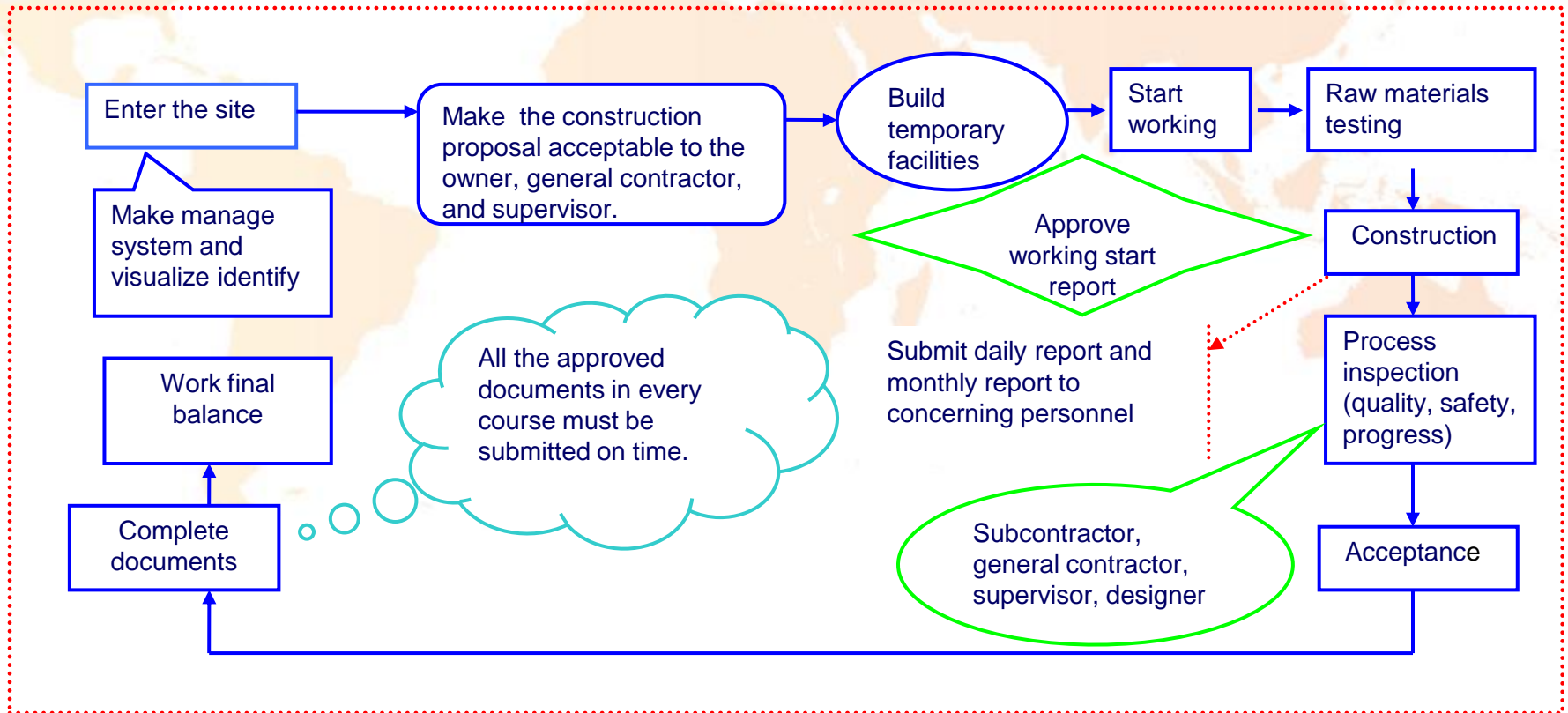


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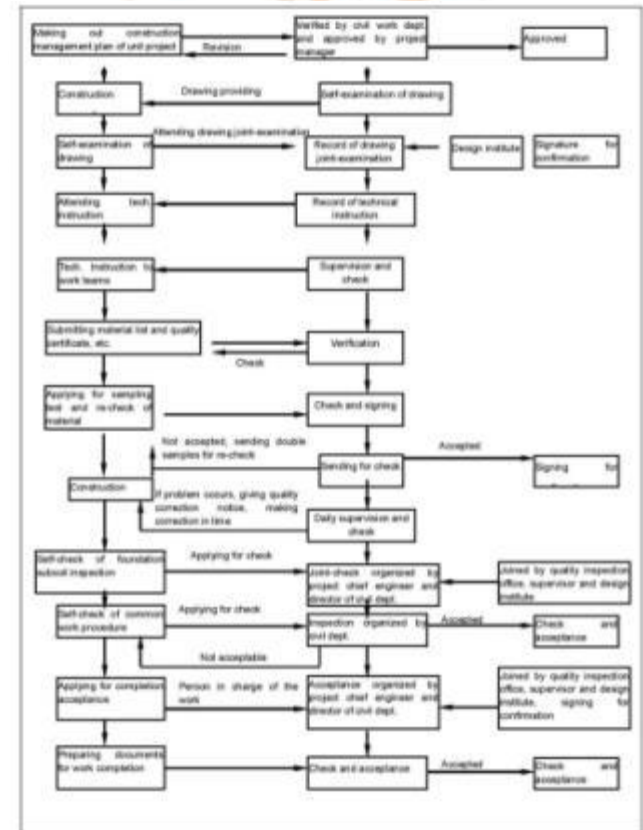
Shipment in China Port



Control-Sub-Contractor

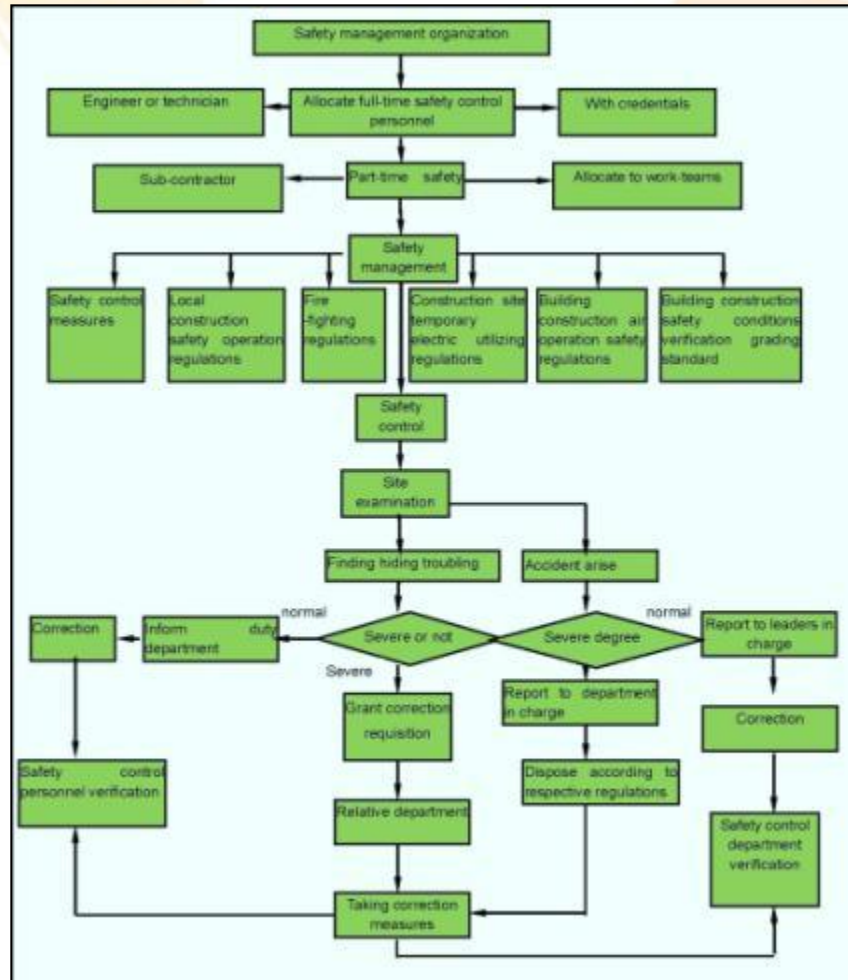


“Sub-contractors” also includes local companies and it has been practiced in several projects. We sub-contracted a lot of work to local companies to reduce the labor resource import risk and fulfill the obligation of providing employment of local labors.



Safety System Documentation

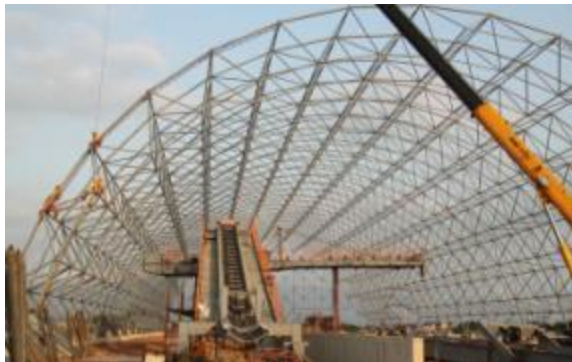
1. system of organization
2. system of responsibility
3. system of target
4. system of safety education and training
5. system of regular supervision
6. system of safety investment
7. system of principle implementation
8. system of risk headstream assessment
9. system of emergency response
10. system of information
11. safety system of overseas construction
12. system of safety evaluation and reward-punishment

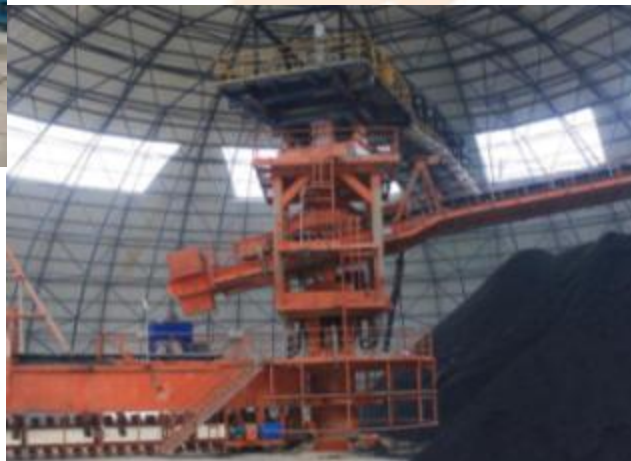






Erection and Installation





Lafarge Dujiangyan 3300TPD Project



Hedelburge GuangZhou 6000TPD Project



Saudi Arab EPC Project
SPCC 5000TPD, RCC 5000TPD, CCC 5000TPD, SCC
2*10000TPD



Syria ABC 5000TPD EPC Project



Morocco Settat 4000TPD EPC Project



Hungary 2500TPD EP Project



France Bordeaux EPC Project



Spain 3300TPD EPC Project



Azerbaijan 4000TPD EPC Project



Italy 2500TPD EPC Project



Lafarge Nigeria 5000TPD EPC Project



Zambia 2000TPD EPC Project



Tanzania 2500TPD EPC Project



South Africa 2000TPD EPC Project



Dominica 2750TPD EPC Project



Brasil 4000TPD EP Project



Ecuador 1500TPD EPC Project



References - Lafarge

REFERENCE LIST FOR LAFARGE

NO	PROJECT NAME	LOCATION	CAPACITY (t/d)	PROGRESS	SCOPE OF WORKS
1	Lafarge Dujiangyan Line 1	China	3500	Operation	EPC
2	Lafarge Chongqing 2	China	2500	Operation	EPC
3	Lafarge Dujiangyan Line 2	China	3500	Operation	EOC
4	Lafarge Dujiangyan Line 3	China	5000	Commissioning	EPC
5	Lafarge Sancha	China	5000	Commissioning	EPC
6	Lafarge Yongchuan	China	5000	Commissioning	EPC
7	Lafarge Bordeaux	France	60tph	Operation	EPC
8	Lafarge Sonadih	India	5000	Operation	EP
9	Lafarge Chilanga	Zambia	2000	Operation	EPC
10	Lafarge Lichtenburg	South Africa	2000	Operation	EPC
11	Lafarge Ecuador	Ecuador	1500	Operation	EPC
12	Lafarge Rajasthan	India	5000	Operation	EP
13	Lafarge Russia	Russia	5000	Construction	EP
14	Lafarge WAPCO	Nigeria	5000	Operation	EPC

Procurement

Cooperation with all kinds of sub suppliers to fulfill diversified requirement from different Owner

Strict Quality Control Plan

Standardized Painting and Packing Plan

Construction

Different Construction Plan According to different Local Conditions

Example: Hume Cement in Malaysia

Example: Indocement P14 Indonesia;
GOE Project in Egypt

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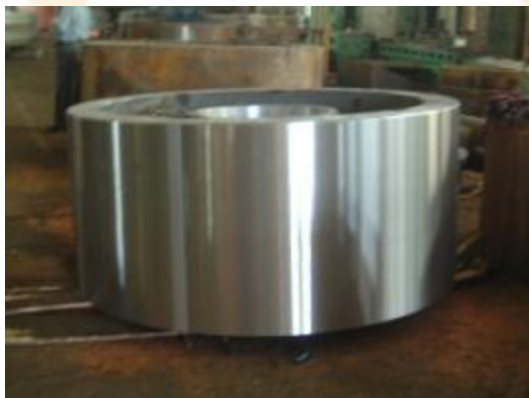
CENTRE OF PRODUCTION & OPERATION MANAGEMENT

Spare Parts Services

- 
- Equipment Fabrication
 - Storage and Distribution
 - Production Support and Overhaul Service
 - Spare Parts Lease
 - Spare Parts Exchange Center
 - 24 X 7 Emergency Support
 - On-line Service

Spare Parts Services

Spares in Stock



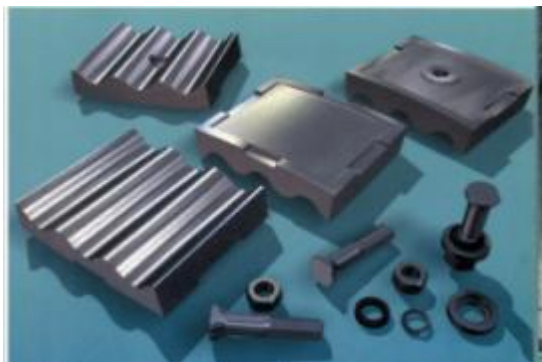
Support Roller



Crusher Rotor



Girth Gear



Mill Liner



Roller Mill Gear Box

Options of production & operation management

1.

Application condition	Contractor (in charge of)	Owner (in charge of)	Advantage	Remarks
The owner is lack of dry process cement production management and production personnel	<ul style="list-style-type: none"> ● all management personnel; ● all production personnel; ● all production spare parts; ● all production wearing parts. 	<ul style="list-style-type: none"> ● procurement of raw material & fuel; ● water & power supply; ● sales of finished product; ● other external affairs. 	Clear definition of responsibility and authority; easy for assessment , and easy management for the owner.	



Thank You!