

**Presentation of Customer Services Division by  
Erik Birch, division manager**

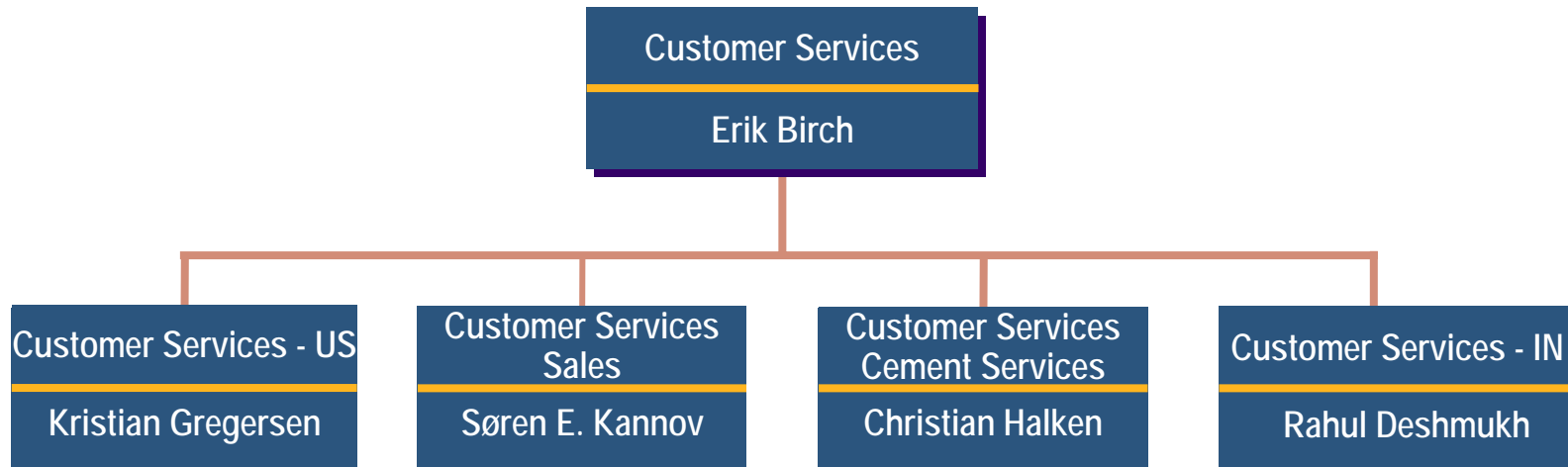


**FLSMIDTH**

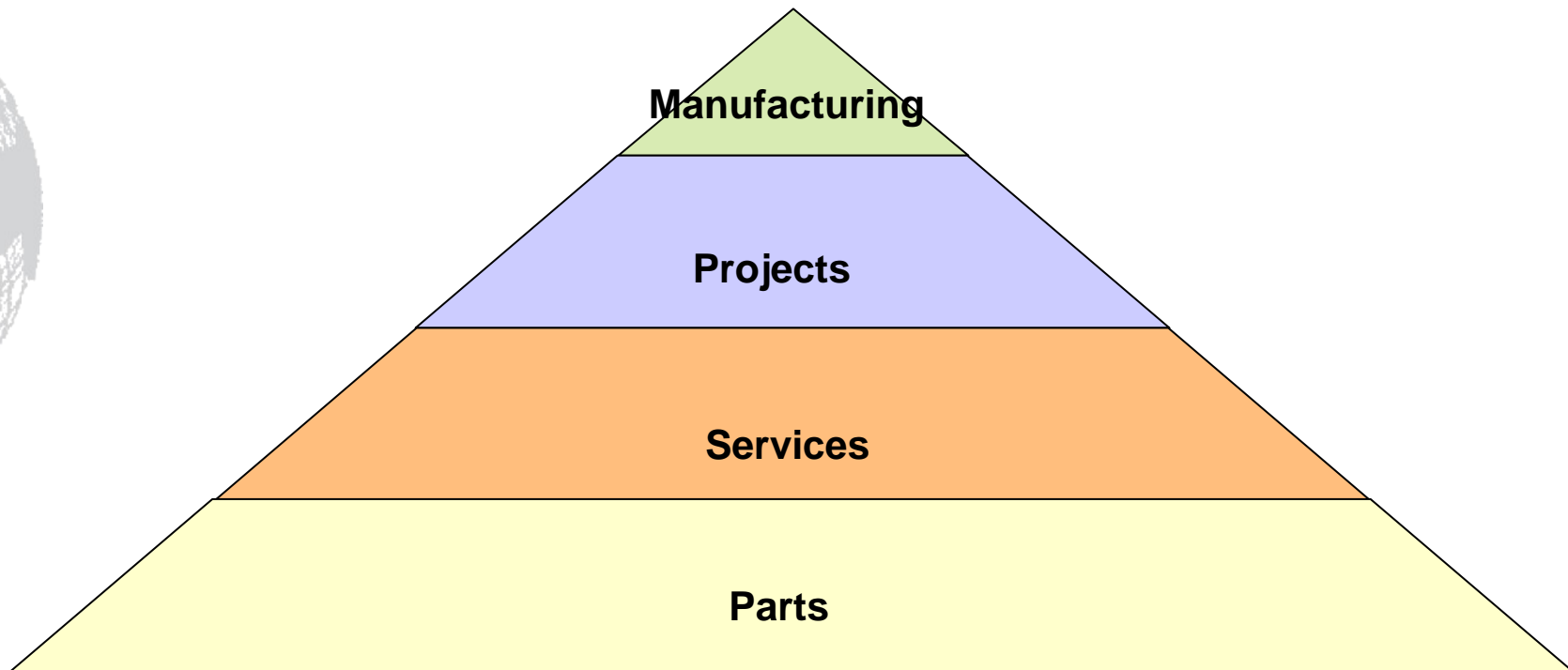
**CUSTOMER SERVICES**

**FLSMIDTH**

## Organisation - Customer Services Division



## Business Areas – Customer Services Division



## Examples of replacement parts

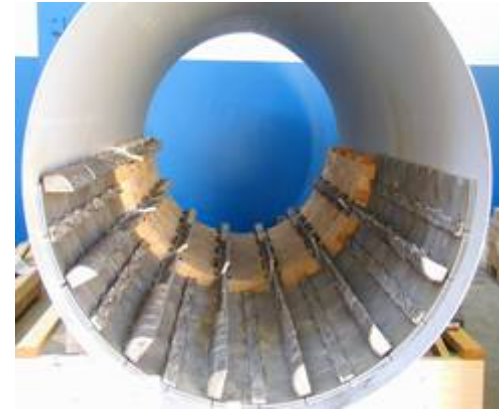


# Improvements to older kiln types

## Kiln lamellae seal



## Unax cooler parts



## Duoflex burner



## Market Description – Customer Services

- **CSD market is global, covering all aspects of serving existing plants with parts, services, minor projects, pneumatic transport parts and projects. Through the project divisions, CSD also serves the market with supervision for installation and commissioning**
- **More than 1500 customers are served and CSD receives more than 10,000 orders per year**
- **Our market is very competitive with competitive pressures from bottom and from top**
- **Generally our products have no legal protection from competitor copying due to lack of patents**

## Customer Services - Parts Market

- The products are parts of cement equipment, mainly FLSmidth designed machines
- Most parts are fabricated, forged or cast parts, which can be copied with relative ease
- New plants are usually supplied with 2 years supply of parts, so the aftermarket starts to grow towards the end of this period
- Over time the customers have opportunity to disassemble machines and in the process build a database of parts, often with reverse-engineered drawings
- Lifetime of plant is often in excess of 25 years
- When replaced, it is often with large capacity new units, giving fewer parts per ton of production capacity
- Improved value-creating parts are needed to differentiate from competing products

## Competitors – Parts

- **Local foundries and workshops**
- **OEM suppliers such as GE, ABB, SKF, FAG, Siemens**
- **Specialised global foundries such as Magotteaux, AIA, Columbia Castings, Estanda etc.**
- **Polysius, KHD, FCB, L&T, CEMAG etc.**
- **Customers themselves...**



## Competitors - Services

- **Philips Kiln Services**
- **Polysius, CEMAG, KHD, FCB, L&T etc.**
- **Independent consultants  
(former employees of FLSmidth and competitors)**
- **Customers themselves...**

## Competitors - Minor projects

- Polysius, KHD, LVT, CEMAG, Enxco, FCB, etc.
- Claudius Peters, Lösche, Gbr. Pfeiffer, IKN, Greco etc.
- Local engineering companies (no global reach)
- Customers engineering departments, f. inst. Holcim, Heidelberg, Italcimenti, Cemex, Lafarge

# Mechanical Equipment Services

## Examples

- **Gear inspections**
- **Mill inspections**
- **Kiln inspections**
- **Mechanical failure analysis**

# Operating Services

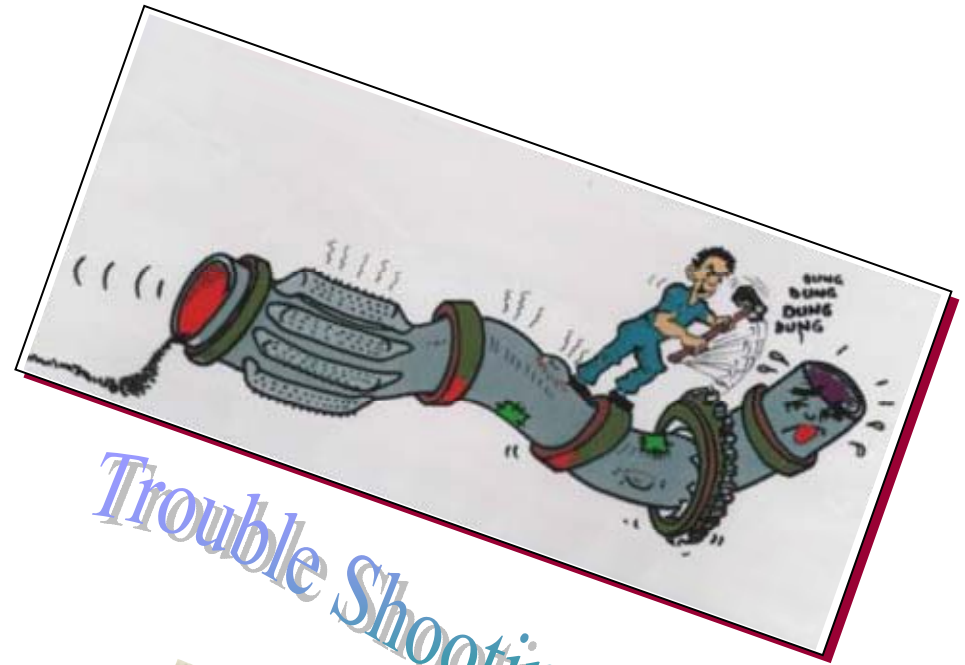
## Examples

- External inspection of all machines
- Examination of available operational data and check of control data collected during operation
- Analyses of relevant samples collected during operation
- Calculation of heat and raw material balances
- If the kiln is stopped, internal inspection of kiln, cooler, preheater, calciner and other machines operating closely together with the kiln

# Cement Services



**Commissioning**



**Trouble Shooting**

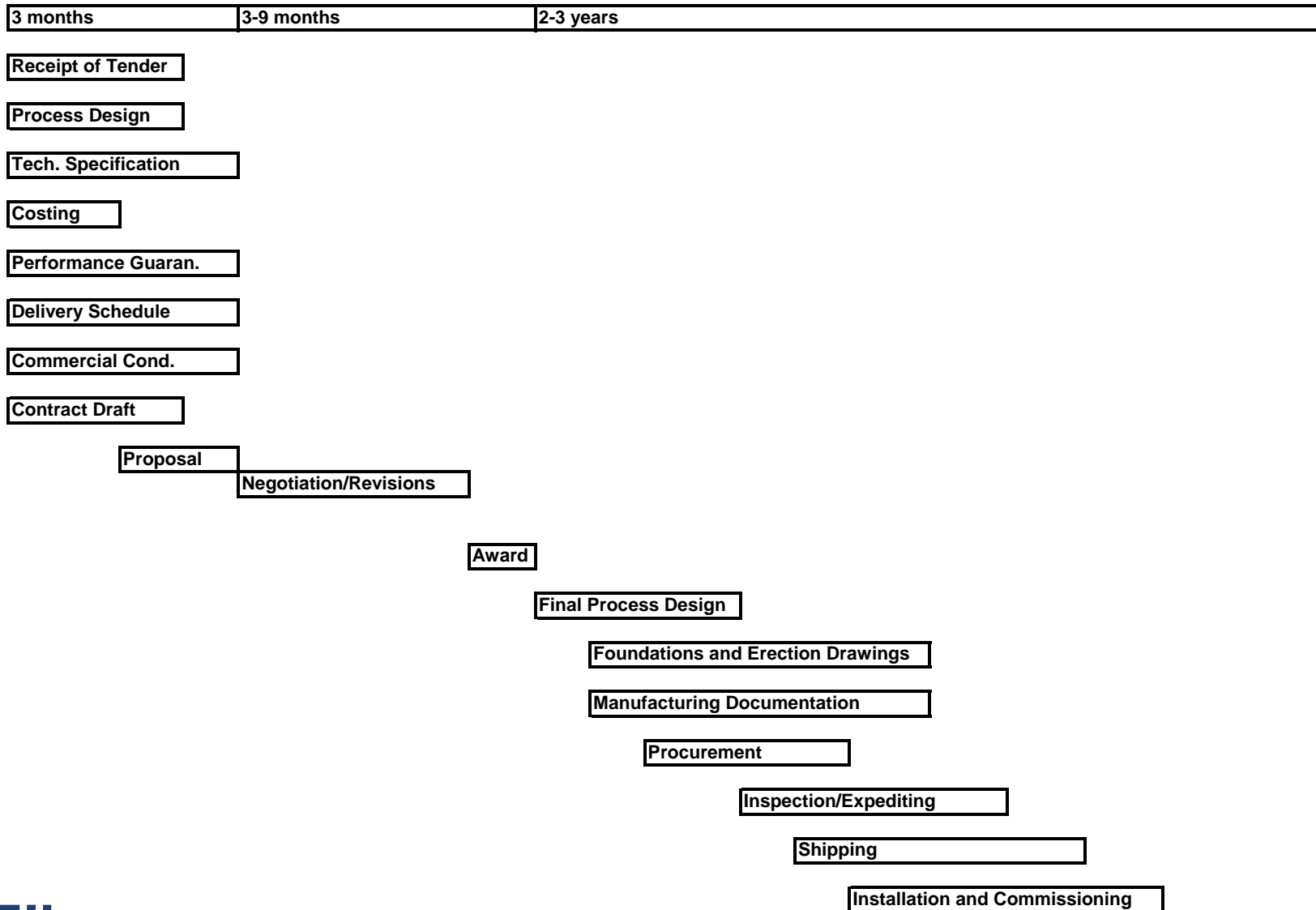


**Training**

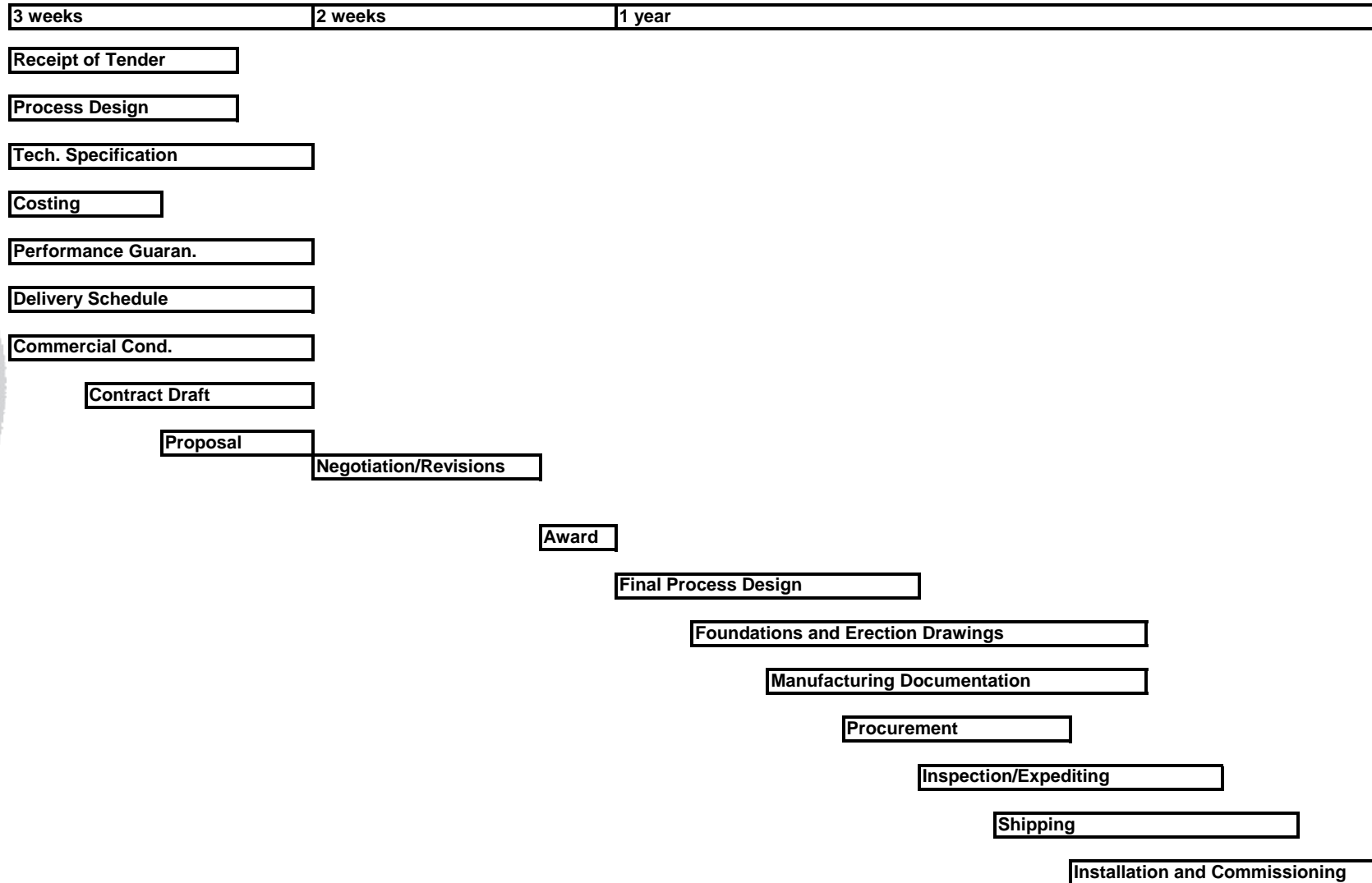


**Erection Services**

## Project timelines - Large Projects



# Project timelines – Small Projects



## Customer Services Project - Example:

### Project Scope:

- New clinker cooler for existing kiln
- Modification of existing preheater
- Construction of new calciner
- Burner and coal dosing for new calciner

### Key Dates of Project:

First inquiry from customer	01/08-2003
Proposal submitted	19/08-2003
Contract awarded to CSP	29/09-2003
Foundation and Erection Drawings submitted	31/03-2004
Scheduled Commissioning start	18/02-2005
Actual Commission start	18/01-2005



## Kiln and clinker cooler before modification



New cooler being installed





## Cyclone preheater modification ongoing



## Gas cooling tower modification ongoing





## View of preheater, kiln and cooler



## Customer Services - Action Points 2005-2007

### Examples:

- CSD India Establishment
- Off-shoring of work to FLSmidth India
- Small Projects in the USA
- Strengthened Presence in the Middle East.

# Questions



**CUSTOMER SERVICES**