

### **EXECUTING ON OPPORTUNITIES**

**Strategy 2013-2015** 





- 1. Overall findings
- 2. Main points of "Executing on Opportunities" strategy
- 3. Understanding Topsil's value chain and markets
- 4. Customer end focus
- 5. Strategy in details
- 6. Management focus



### **FINDINGS**

The last two strategies have focused on investments while cash flow has been negative.

#### Market

- High entrance barriers to industry, highly specialised supply chain and long qualification cycles
- Long term growth perspective intact
- During 2007-2010: very favourable market conditions, under capacity in the FZ market
- Change of market in 2011, over capacity due to severe demand reduction

#### Customer road tour

- Customers want to move from NTD to PFZ to reduce nuclear reactor dependency
- High interest in 200 mm PFZ silicon
- Current slow down in demand is caused by reduction in end user demand and reductions of inventories in supply chain
- Customers appreciate Topsil quality and responsiveness



### **FINDINGS**

### Topsil

- Lack of execution: Historically too many significant delays in key projects
- Topsil acquired Cemat in 2008 we still appear as two different entities and brands
- Production yield and efficiency below market standard
- We have a broad focus on MEMS, Opto, Detectors, RF and power
- Approximately 2/3 of our turnover came from NTD, and almost half (48%) of our turnover came from only three customers in 2011
- Dependency on few raw material suppliers long term contracts with fixed minimum purchase.
- European based:
  - China large, long term growth market no local Topsil presence
  - Japan is the largest FZ market Topsil has less than 1% market share in the Japanese FZ market
- State-of-art float zone plant close to completion
- World class in-house power silicon and FZ competences



### **CUSTOMER END FOCUS**

Survey 2012: Customer buying criteria vs. Topsil performance

#### **Customer buying criteria Topsil performance** Price level Price level 10.0 1,20 1,00 Sales accessibility 8,0 Completeness of Sales accessibility and Completeness of and response time product range 0.80 product range response time 6,0 (product capability) (relations) (product capability) (relations) 0,60 0,40 2,0 0,2000 0,00 Technical support Technical support and and documentation **Product quality** documentation **Product quality** (knowhow) (knowhow) Commitment and Commitment and Delivery flexibility to your performance flexibility to your Delivery performance company (flexibility)



company (flexibility)

# **EXECUTING ON OPPORTUNITIES**MAIN POINTS

- Focus on value/improving liquidity, utilising investments already made:
  - Strengthen market position in PFZ
  - Expand position in Japan and China
  - Improve cash flow
  - Enhance wafer production efficiency





# **\*\*\* WE WILL FOCUS OUR EFFORT**

	Poly Silicon	Wafers	Components	Module	Application
MEMS					
Opto & detection					
RF & IPD					
Power					
Other					



### **SILICON IS PART OF A WIDER**

### **VALUE CHAIN**

Polysilicon

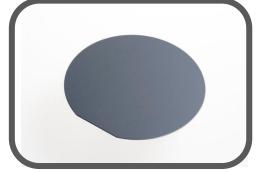


Power component



Final application





Finished wafers

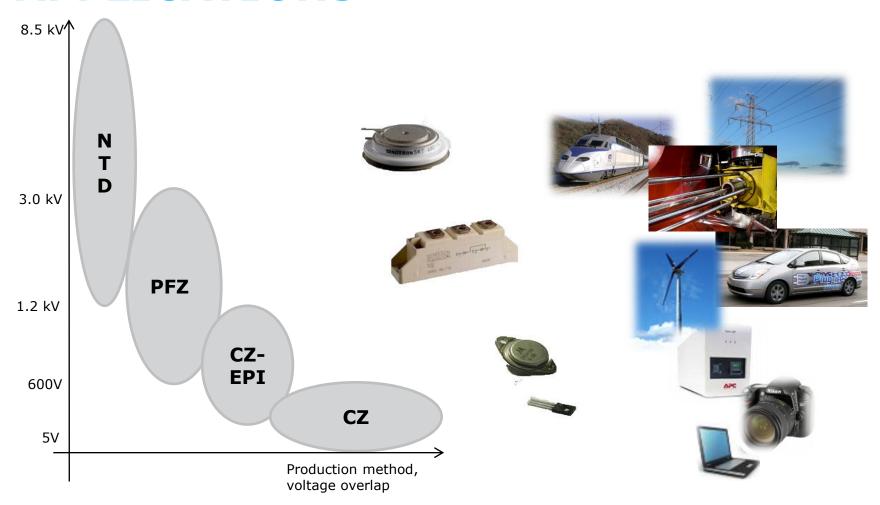


Power module



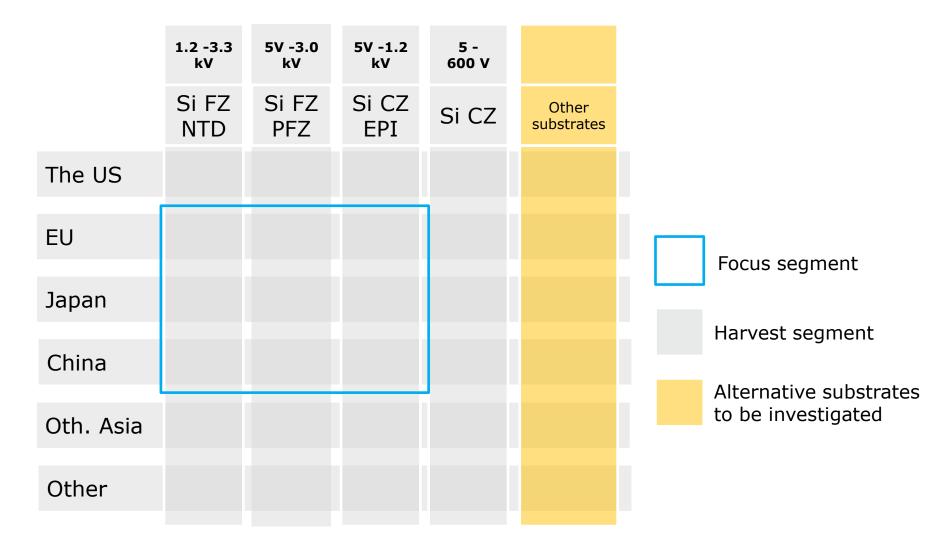
# \*\*\* PRODUCTION METHODS,

# **APPLICATIONS**





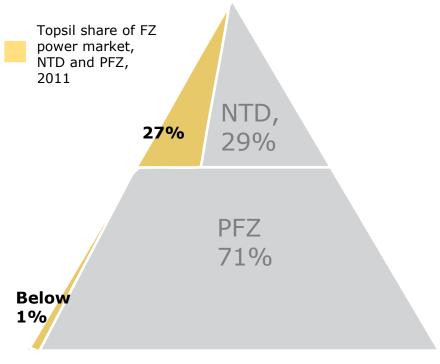
### **\*\*\*SEGMENTATION ON POWER MARKET**





### **EXECUTING ON OPPORTUNITIES**

### **INCREASE PFZ MARKET SHARE**



NTD relative to PFZ on power market Source: Yole Developpement, 2012

- In 2010 new 150 mm PFZ silicon was introduced, based on patented manufacturing process
- Strong market acceptance of product performance
- Reduced market opportunities due to:
  - Slow down in demand
  - Established supplier relationships already exist
- Product launch of new 200 mm PFZ silicon while qualification window is still open





# EXECUTING ON OPPORTUNITIES GEOGRAPHICAL EXPANSION

### Japan: Increase market share

2008: 5000Yen = 227 DKK

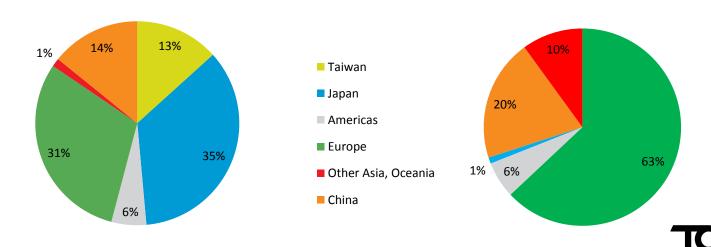
2009: 5000Yen = 278 DKK

2011: 5000Yen = 333 DKK

2012: 5000Yen = 382 DKK (August)

### FZ market distribution, Topsil estimate 2011

## Topsil, FZ revenue, geographical split 2011



# **EXECUTING ON OPPORTUNITIES**GEOGRAPHICAL EXPANSION

### China: Establish strategic position

- China is focused on transferring power component technology from the West, until now mainly for infrastructure and transport
- Our European customers have brought Topsil into China
- Next focus will be industry, cars and white goods
- We will strengthen our position in China by providing support locally to the Chinese customers



# **EXECUTING ON OPPORTUNITIES**CASH AND CASH FLOW

- Significant investments have been made in recent years now is the time to make a return on these investments
  - Cemat acquisition
  - New plant for the manufacture of ultrapure silicon
  - State-of-art equipment for the manufacture of ultrapure silicon
  - Upgrade of equipment in Cemat in support of further processing (wafering)
- Limited new investments, full utilisation of potential following from investments already made
- Focus on reduction of working capital and increasing cash flows from operations



# **EXECUTING ON OPPORTUNITIES**PRODUCTION EFFICIENCY

- We have constructed the most modern ultrapure silicon factory of the world and have world class expertise – but our manufacturing performance is lacking
- Improve manufacturing performance
  - Improve yield in our manufacturing
    - Manufacture of ultrapure silicon
    - Further processing (wafering)
  - Labour efficiency
- Increased capacity utilisation



### **EXECUTING ON OPPORTUNITIES**

### **OBJECTIVES**

- Increase of market share on the power market through notable growth in PFZ and by strengthening market position in Japan and China
- Reduction of the average variable cost per wafer by a minimum of 15% through implementation of comprehensive improvements and efficiency enhancements in production
- Investments expected to be lower than the level of depreciation charges and while focusing on reducing working capital, expectation of cash conversion in excess of 100%
- Increased cash flow will be used to maintained dividend policy and reduction of debt



### MANAGEMENT FOCUS

### **FROM**

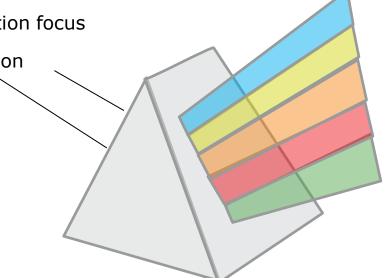
Two companies (Topsil & Cemat)

European focussed business

High dependency on only one product

Unclear application focus

Cash consumption



#### TO

One integrated global business

Focus on wafers for power

Two legs – NTD and PFZ

World class FZ manufacturing

Cash generation



## **THANKS**

**CEO Kalle Hvidt Nielsen, khn@topsil.com** 



