

OKMETIC

*Finnish-Russian Innovation
Alliance on Nanotechnology*

Partner Day - Okmetic Oyj

15.11.2011

Markku Tilli

Okmetic in brief

Okmetic supplies tailor-made silicon wafers for sensor and semiconductor industries. In addition, we sell our technological expertise for solar cell industry.

Okmetic is the world's leading supplier of sensor wafers and an esteemed technological partner.

- Net sales in 1-3Q2011: 65.1 million euro
- Operating profit in 1-3Q2011: 14.6% of net sales
- Personnel (30.9.2011): 350

Milestones

- 2009 Sensor business capacity expansion started
- 2007 Expansion of Vantaa plant in Finland
- 2006 Sales office Okmetic K.K. founded in Japan
- 2004 Okmetic fab lite strategy started
- 2001 SOI wafer volume production started
- 2000 Okmetic IPO on the Helsinki Stock Exchange
- 1999 Okmetic Inc. epitaxial wafer plant founded in Texas, USA
- 1997 Start of new crystal and wafer plant in Vantaa, Finland
- 1996 Epitaxial wafer production line started
- 1987 First crystal and wafer plant started in Espoo, Finland
- 1985 Foundation of Okmetic Oy, a joint venture of Nokia and Outokumpu

Production



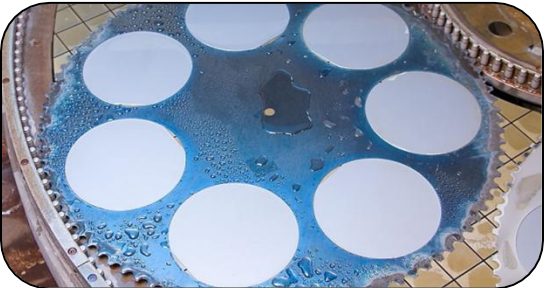
Vantaa plant, Finland

- Crystal growth
- Sensor wafers
- Demanding semiconductor wafers
- Advanced wafers (SOI)



Allen plant, Texas, USA

- Value adding wafers (EPI)

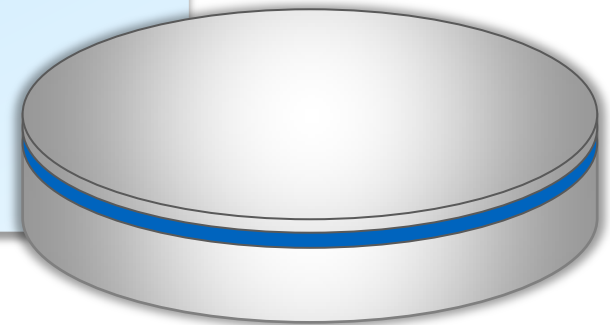


Fab lite capacity, Japan and China

- Semiconductor wafers

Complete set of 100-200mm silicon wafers to support sales growth

- SOI (Silicon-On-Insulator) wafers
 - MEMS SOI
 - High voltage SOI
 - DSP (Double Side Polished) wafers
 - Epitaxial wafers
 - SSP (Single Side Polished) wafers
 - CAP wafers for encapsulation
-
- Customer support for pilot projects
(e.g. new customised solutions, R&D co-operation, oxidation and nitride deposition)



Okmetic worldwide

EU



USA



Asia



Finland

- Vantaa plant
- EU sales
- Asia sales
- ❖ Group headquarters

Texas, USA

- Allen plant
- US sales

Japan, Tokyo

- Japan sales
- Fab lite capacity

China

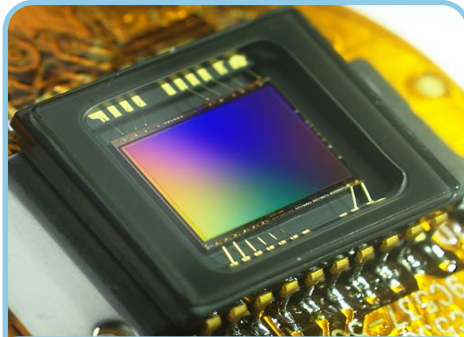
- Fab lite capacity

Hong Kong

- Asia-Pacific sales

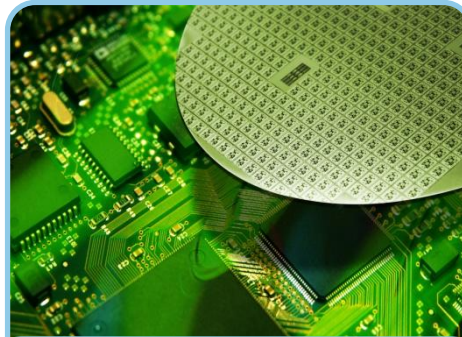
● Sales representatives China, Korea, Taiwan, USA

Okmetic serves three industrial sectors



Sensor industry

- Market 7.1 billion USD
- Most important area of growth and investment
- Okmetic is the market leader



Semiconductor industry

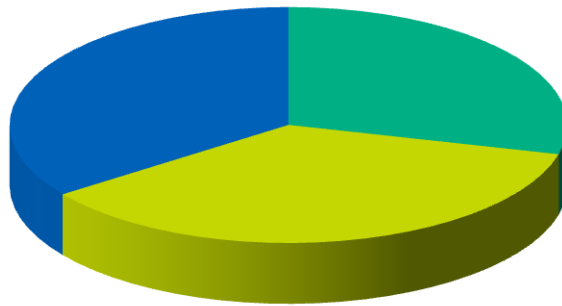
- Market 298 billion USD
- Specialist products for target customers
- Okmetic is a valued and reliable supplier



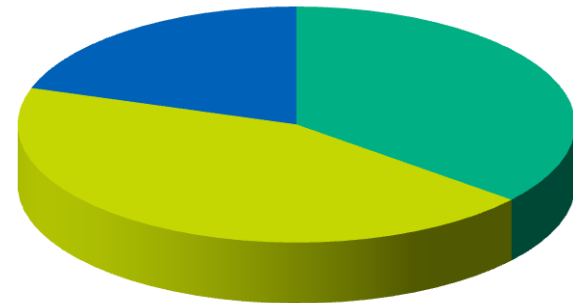
Solar cell industry

- Market 30 billion USD
- Materials and know-how for boosting customers' profitability

Division of sales by market area and customer group

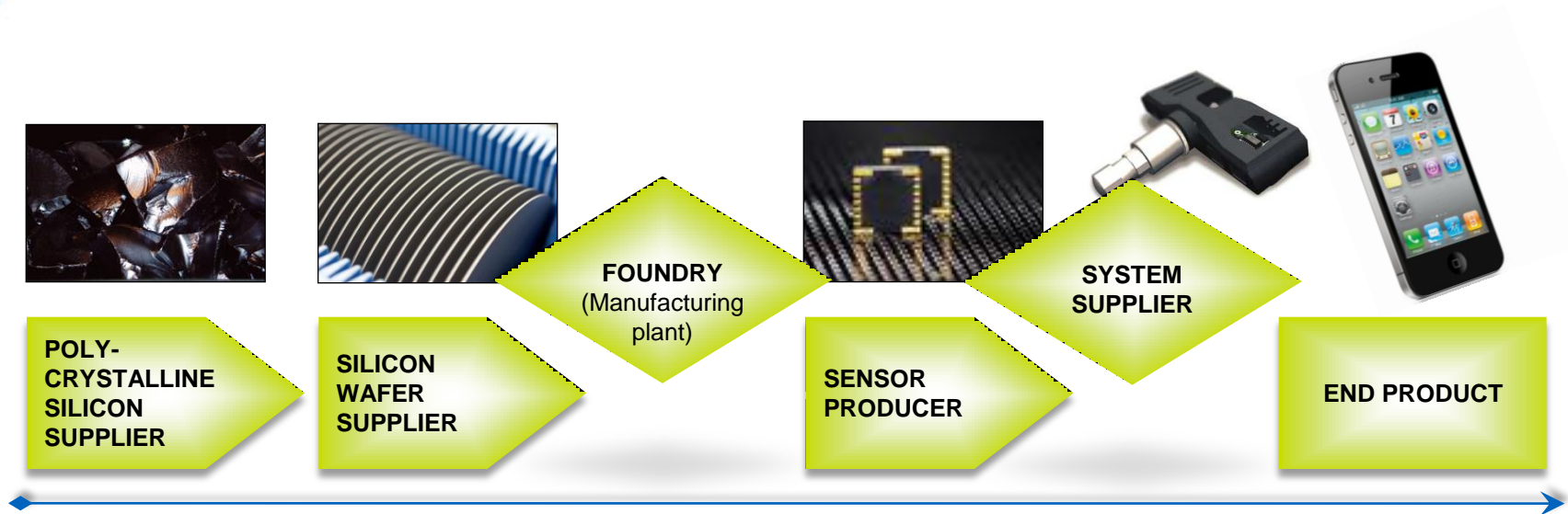


	1-3Q 2011	1-3Q 2010
■ North America	36%	43%
■ Europe	29%	26%
■ Asia	35%	31%

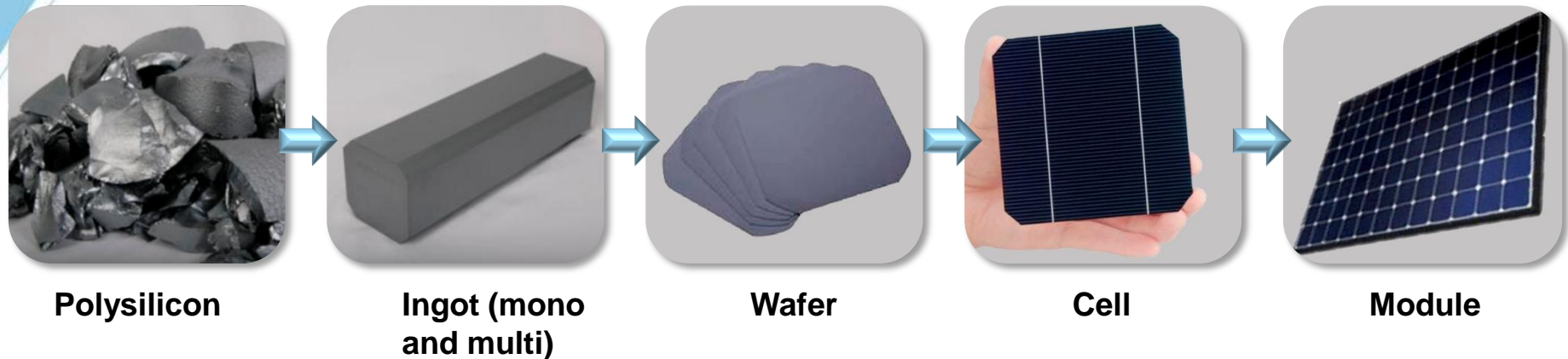


	1-3Q 2011	1-3Q 2010
■ Sensor wafers	44%	43%
■ Semic. wafers	36%	43%
■ Technology	20%	14%

Supply chain of sensor products

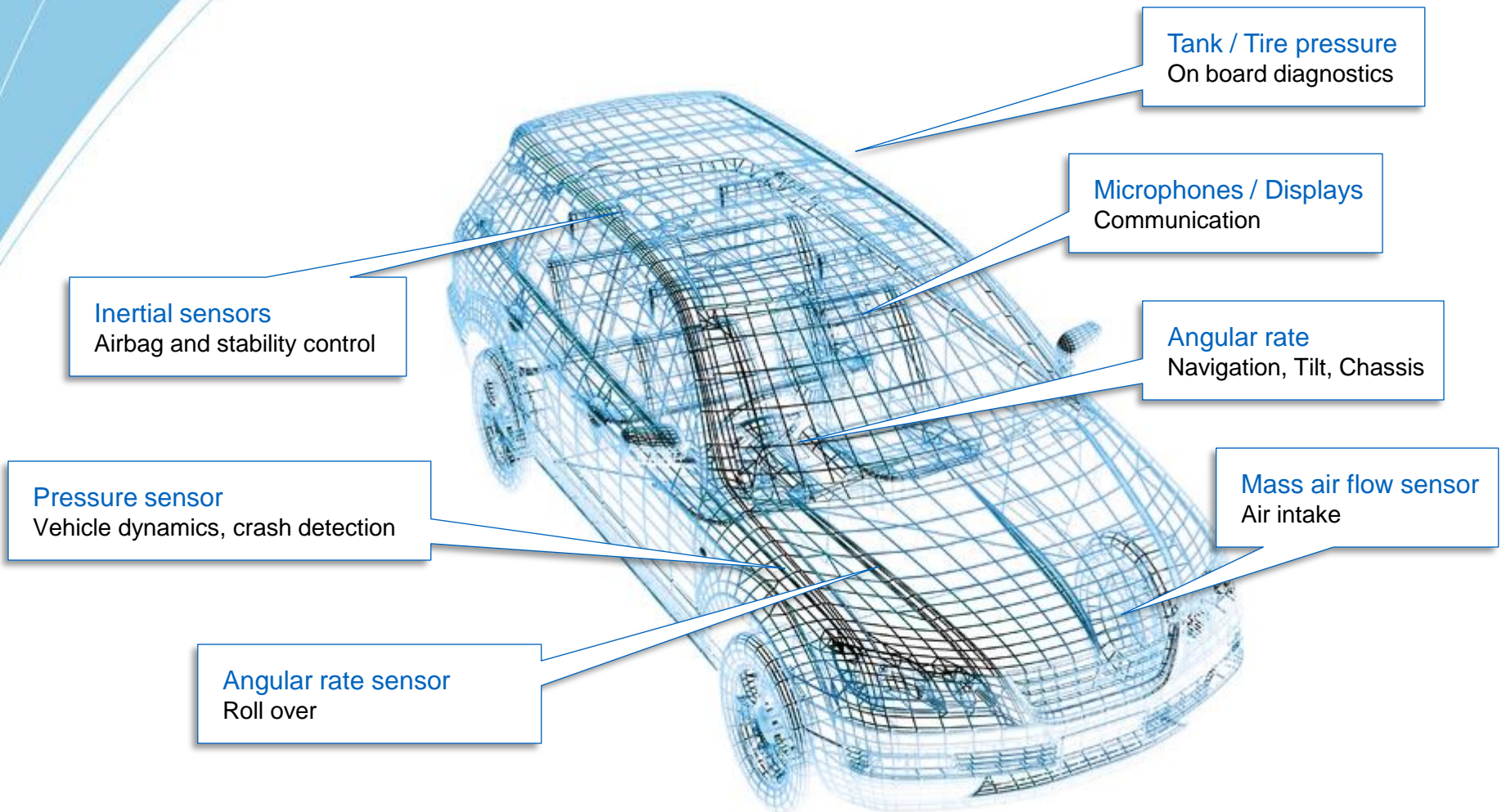


Solar (Photo Voltaic) value chain



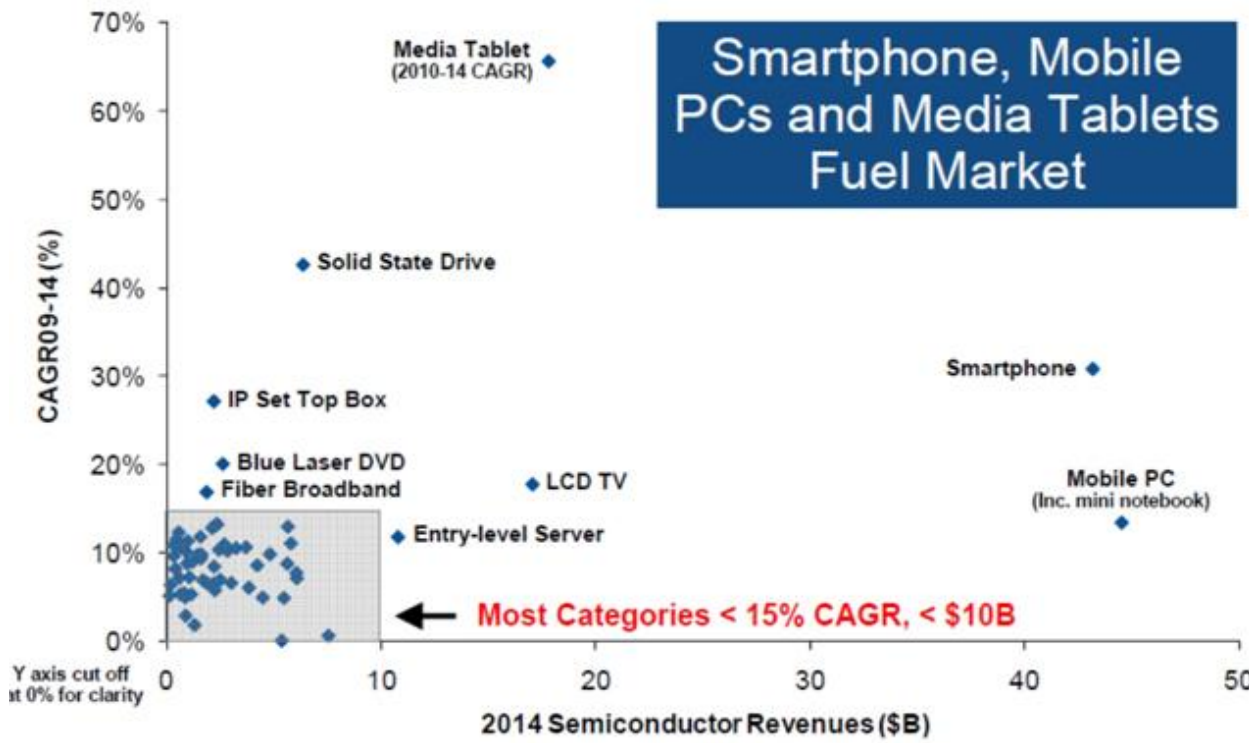
- Semiconductor technology is widely applied in Solar industry
- Mono Si based modules have 30-35% share of the total PV market

Examples of automotive sensors



Smart phones, mobile PC's and tablets fueling growth in the device market

Applications Driving Growth Through 2014



Source: Gartner

Okmetic's strengths



Crystal growing



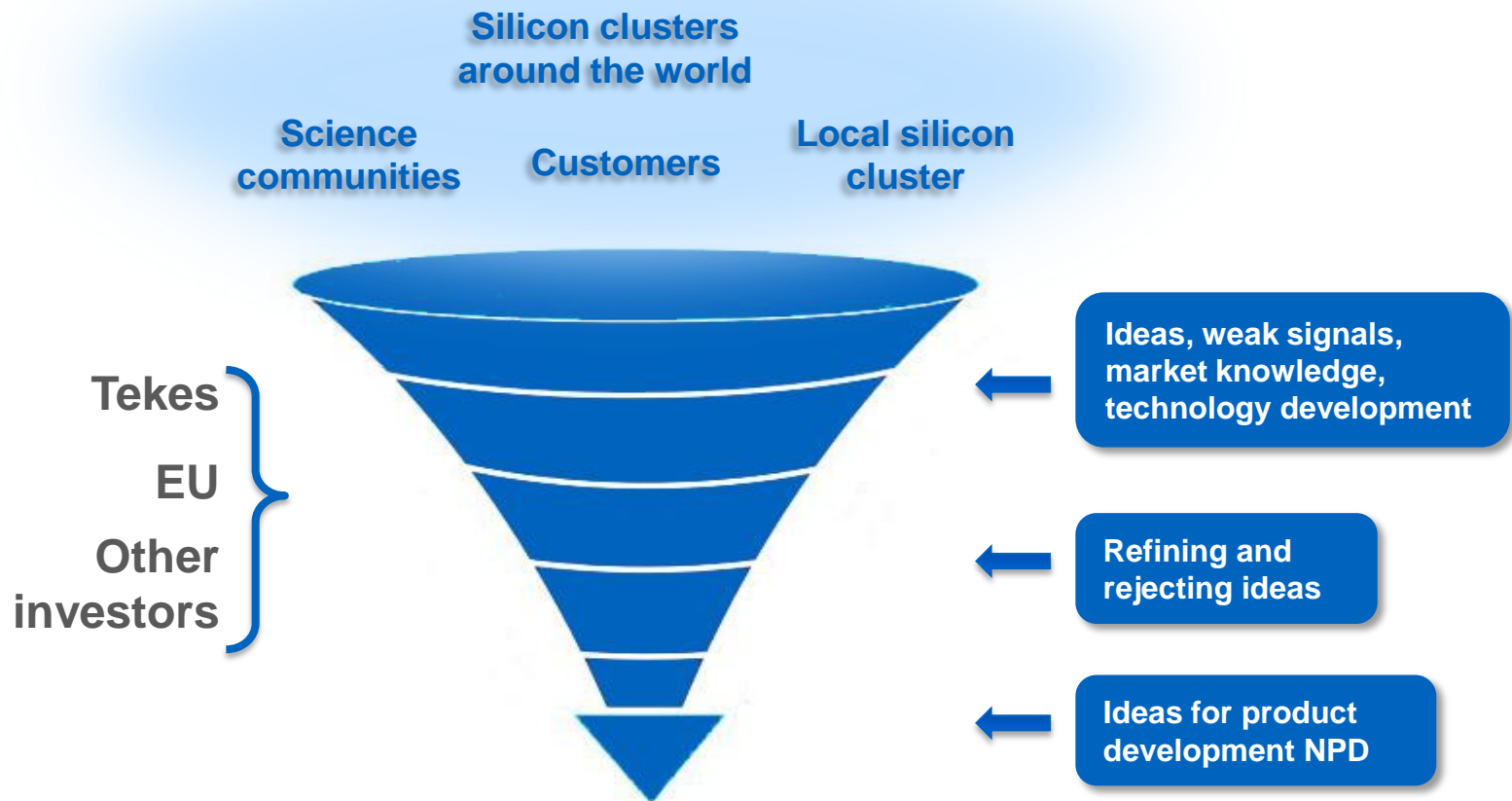
**Sensor wafer
manufacturing**



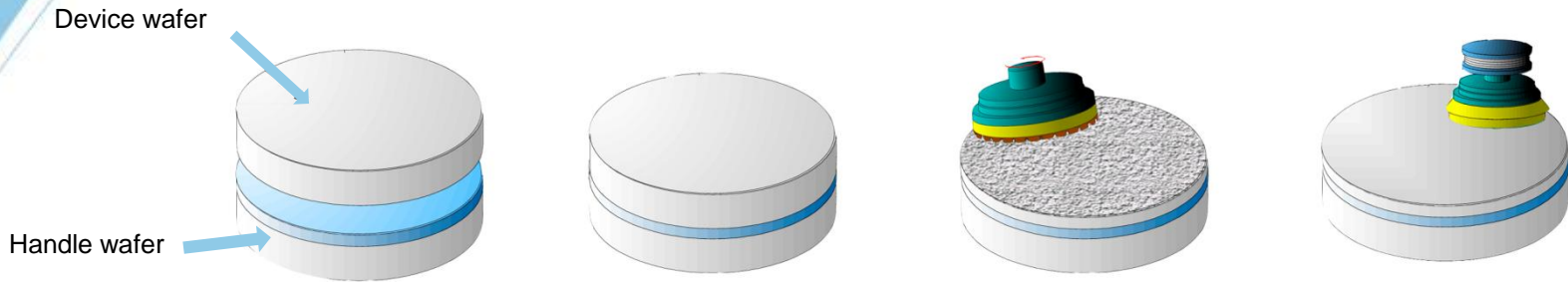
Customer relations

We are the global market leader in silicon-based solutions in our chosen market segments as well as a technological pioneer.

Okmetic's R&D model – utilisation of external research partners and close co-operation with customers



Bonded SOI wafer process



Clean and bond



Anneal



Grind



Polish

Okmetic R&D keeping pace with evolution



- Okmetic's R&D makes sure that we have the right products and technologies now and in the future to ensure Okmetic's long-term growth and profitability



Thank You!