

## **PRESS RELEASE**

### **European semiconductor industry declared Europe's *most R&D intensive industry sector.***

*Brussels, February 1, 2011:*

Europe's semiconductor industry ranks top for R&D investment intensity! This is the conclusion of the recently released European Commission 2010 *EU Industrial R&D Investment Scoreboard*, which every year calculates and ranks the ratio of R&D investment over net sales of 1400 listed companies worldwide.

With a record ratio of 21.8% of annual R&D expenditure over annual sales, the sector's R&D intensity is almost eight times that of the EU industry average. Semiconductors rank alongside other sectors such as biotechnology or software as a *High R&D intensity* sector, with semiconductor R&D investment reaching 3.3 billion EURO in 2009 amongst the surveyed companies. The European R&D intensity average is calculated at 2.8% for 2009. For 2008 figures, surveyed chip makers were second with a 18% ratio and R&D investments of over 4 billion EURO.

This excellent result is replicated at the worldwide level, where semiconductor manufacturers were ranked second with 16.8% R&D intensity, also up one position from the 2008 report figures (15%) and positioned between biotechnology and pharmaceuticals.

**Carlo Bozotti**, ESIA President as of 2011 and President and CEO of Europe's largest chip maker STMicroelectronics welcomed the outcome, commenting: *"The 2009 data proves the continued importance of R&D to Europe's semiconductor industry – an industry which kept on investing in R&D and innovation despite one of its most challenging years on record. It is no coincidence that as an enabling technology sector the semiconductor industry continues to be one which is driving Europe's economy out of its economic crisis."*

The comparisons also contain a word of caution. Bozotti again: *"Maintaining R&D investments at such high levels in a highly globalized economic environment also puts some unique demands on companies. These demands must be recognized and supported in a more coherent and far stronger way to ensure Europe remains a top semiconductor player in the competitive global marketplace. It is critical that the existing European Key Enabling Technologies (KETs)<sup>1</sup> initiative succeeds in delivering the right framework and we must be ready for it with the whole value chain."*

In a dedicated section the scoreboard also notes that EU chip-company investments are higher than other key semiconductor producing regions (see table 2). One explanation the scoreboard gives for this is an emphasis that European semiconductor companies place on important and high-growth smaller markets, where these focused investments have *"smaller sales over which to spread the cost of the R&D."*

ESIA R&D Group's Chair **Fred van Roosmalen** (NXP) explains this point: *"2009 was an extraordinary year in many ways. It is clear that EU companies are top scorers in focused high-potential markets such as automotive, medical devices or smart cards, while also serving **all** semiconductor markets. We should continue to anticipate market dynamics to stay at the forefront of the global semiconductor industry."*

- Tables follow -

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<sup>1</sup> This EU initiative was launched in September 2009, with the aim to deliver policy recommendations to promote the industrial deployment of KETs. *"KETs are of systemic relevance as they enable the development of new goods and services and the restructuring of industrial processes needed to modernise EU industry and secure the research, development and innovation base in Europe."* A high-level expert group is currently developing a longer term strategy / action plan for the identified KETs: Micro/Nanoelectronics, Nanotechnology, Advanced Materials, Biotechnology, Photonics & Advanced Manufacturing systems.

**Industry Association of:**

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Table 1:

Ranking of industries by overall R&D intensity for the EU companies in the 2010 Scoreboard*				
Rank	Sub-sector (4-digit ICB)	R&D investment in 2009 (€m)	Net sales in 2009 (€m)	R&D intensity (%)
<b>1</b>	<b>Semiconductors<sup>2</sup></b>	<b>3344.4</b>	<b>15359.1<sup>3</sup></b>	<b>21.8</b>
2	Biotechnology	877.6	5123.2	17.1
3	Software	3454.3	23662.0	14.6
4	Pharmaceuticals	19717.5	136187.7	14.5
5	Telecommunications equipment	10559.3	79633.1	13.3

\* For the top 20 industries by R&D investment in the EU sample of top 400 companies, classified as sub-sectors according to the ICB 4-digit codes. Source: *The 2010 EU Industrial R&D Investment Scoreboard European Commission, JRC/DG RTD. (Table generated for ESIA.)*

Table 2:

Ranking of industries by overall R&D intensity for the EU, US and Japanese companies in the 2010 Scoreboard*					
Rank	Sub-sector (4-digit ICB)	Overall R&D intensity (%)	EU R&D intensity (%)	US R&D intensity (%)	Japan R&D intensity (%)
1	Biotechnology	21.2	17.1	23.9	11.3
<b>2</b>	<b>Semiconductors</b>	<b>16.8</b>	<b>21.8</b>	<b>19.1</b>	<b>9.6</b>
3	Pharmaceuticals	15.4	14.5	14.7	20.6
4	Software	14.6	14.6	14.8	
5	Telecommunications equipment	12.7	13.3	14.9	3.1

\* For the top 20 industries by R&D investment worldwide, including samples of comparable companies (EU-400, US-504 and J-259), classified as sub-sectors according to the ICB 4-digit codes. Source: *The 2010 EU Industrial R&D Investment Scoreboard European Commission, JRC/DG RTD. (Table generated for ESIA)*

**ABOUT EECA-ESIA:** The Mission of the European Semiconductor Industry Association (EECA-ESIA) is to represent, promote and defend the vital interests of the European-based semiconductor industry and ensure its competitiveness in the global market. The semiconductor industry provides the key enabling technologies at the forefront of the development of the Information Society. This sector supports over 110,000 jobs directly and up to 500,000 induced jobs in Europe, in a market valued at \$37.8bn in 2010. Website: [www.eeca.eu/esia/](http://www.eeca.eu/esia/)

2 At an aggregate industry level of the Scoreboard, the semiconductor part remains tucked away under the category 'Technology Hardware & Equipment'.

3 Sales figures reflect those of the semiconductor companies and semiconductor equipment companies involved in the Scoreboard survey. WSTS figures show overall ww semiconductor sales valued at \$298 bn in 2010.