# „Political Steering Processes in Asia aiming the Photonics Industry“

New *Market Study conducted by SPECTARIS, VDMA and the German Federal Ministry of Education and Research / Focus on the core photonics segments production technology, medical technology and machine vision*

***Munich, Berlin, Frankfurt, Bonn – June 23, 2015*** – „Political Steering Processes in Asia aiming the Photonics Industry“are subject of a new study which were commonly conducted by the industry associations SPECTARIS and VDMA, supported by the German Federal Ministry of Education and Research (BMBF). It now was introduced in the frame of the LaserWorld of Photonics2015 fair in Munich.

The new market study was carried out by Euro Asia Consulting (EAC) and focuses on the photonic segments production technology, medical technology and machine vision which are of particular importance for the German photonics industry. It analyses content and structure of public support and steering actions today and by 2020 in China, South Korea and Japan based on the screening of more than 5000 public funding programs as well as conducting several interviews with governmental representatives, industry associations and German enterprises with activities in Asia..

The debate about the impact of Globalization Processes on the photonics industry started already during the last Photonics Congress in Berlin in February 2015. Together with the Digitization Processes the German photonics industry views this as a major challenge and /or opportunity for the branch. Specifically in the three core segments which were subject of the survey German photonics industry has an excellent global position with high and increasing market shares as the “Photonics Industry Report 2013” reports.

Amongst others - following topics and questions were raised in the study:

- How “strategic” is photonics as an enabling technology valued in Asian countries and for Asian industrial steering programs
- How does political steering processes in Asia work – who are the decision makers?
- Will decision making structures change in near future?
- How efficient are political steering instruments – do they contribute to speed up innovation processes?
- Can foreign photonics enterprises industry gain/participate from those political steering processes?

The Executive Report is available for downloading at the respective websites of the study conductors:

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***Important Links:***
*EAC, http://eac-consulting.de/*
*BMBF, Photonik Forschung Deutschland: http://www.photonikforschung.de/index.php*
*Photonics21: http://www.photonics21.org/*
*SPECTARIS, Fachverband Photonik: http://www.spectaris.de/photonik.html*
*VDMA Forum Photonik: http://photonik.vdma.org/*

## *ANNEX 1*

***About photonics:***

*Photonics is the technological mastery of light in any form. Photonics focuses on the generation, control, measurement and, above all, use of light in almost all socially and economically important areas. The term "photonics" refers to the photon, the light particle, in the same way as the term "electronics" refers to the electron.*

*Light has a number of extraordinary properties:*

- *Focusability: To one millionth of a millimetre (nanometre)*
- *Speed of light: The highest speed that can be achieved in the universe*
- *Shortest pulses: Up to one billionth of one billionth of a second (attosecond)*
- *Highest powers: Up to billions of megawatts (petawatt)*
- *Undisturbed superimposition: Up to millions of megabits per second (terabit per second)*

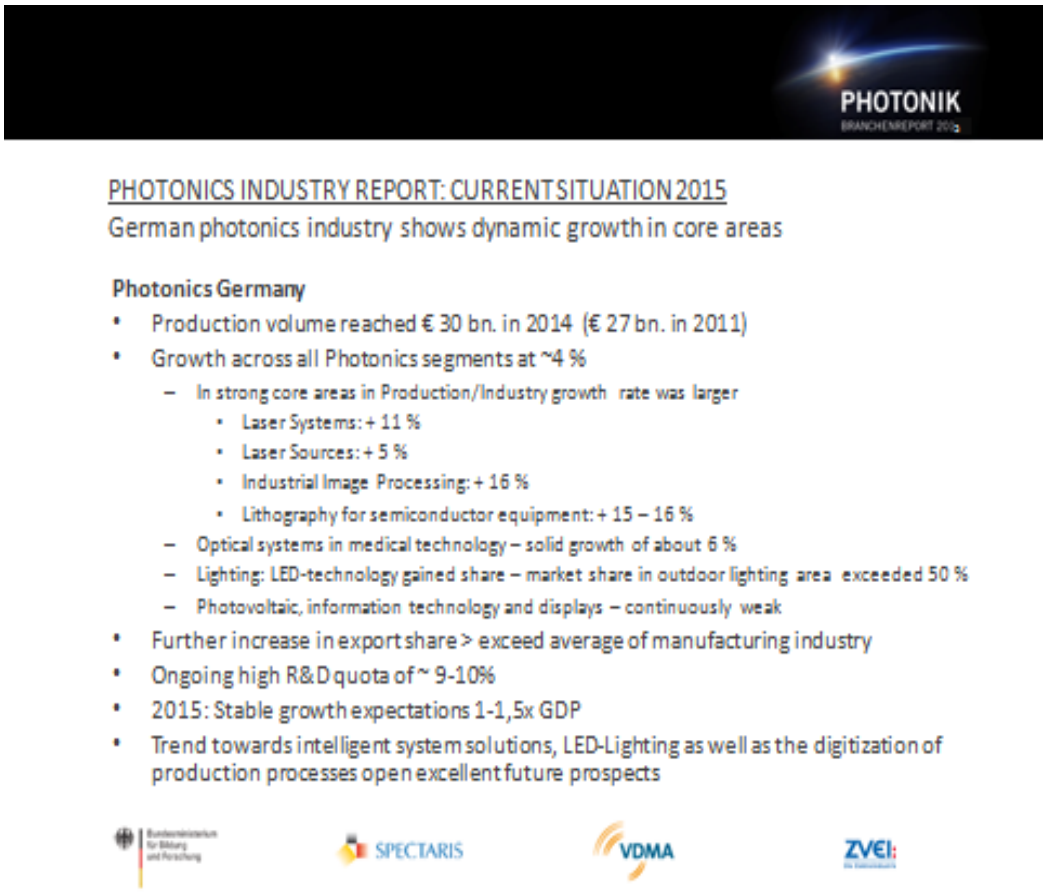
*The key technology of photonics makes these properties useful. Starting from a common technological basis, it combines areas so diverse as production engineering, power and lighting engineering, medical technology, environmental technology, plasma technology and information and communication technology.*
***(Source: BMBF, Photonics Research Germany - http://www.photonikforschung.de/was-ist-photonik/)***

***Market Data and Photonics Industry Report 2013***

*In 2011, the industry associations SPECTARIS, VDMA and ZVEI, supported by the Bundesministerium für Bildung und Forschung (BMBF) [Federal Ministry of Education and Research], allied to set up a work group called Arbeitskreis Marktforschung Photonik [Photonics Market Research Work Group] and together prepared the first Photonics Industry Report 2013.*

*The report predicts a long-term growth of the photonics industry until the year 2020 with an average of 1.5 times the growth rate of the global gross domestic product. Based on a market volume of EUR 350 bn in 2011, the world market for this key technology will grow to EUR 615 bn by 2020.*

*Counted over all segments, the German photonics industry's share is 8%, but in the core areas production engineering, i.e. laser systems, laser sources and lithography systems, and image processing and measurement technology, medical technology and optical components and systems, its share is far greater.*




Graph 1: Industry Report Photonics - Current Situation 2015

*16 June 2015, Berlin, Frankfurt, Munich*: The *Arbeitsgruppe Marktforschung Photonik* [Photonics Market Research Work Group] in which the industry associations SPECTARIS, VDMA and ZVEI are represented expects a solid growth of 4% for the German photonics production in 2014. This means the production volume has reached the EUR 30 bn mark. The situation is different, though, in the individual segments. Without the production in the photovoltaics area (cells and modules), which is weakening in Germany, and the communications and display production, a major part of which has been relocated to Asia - that according to the Photonics Industry Report 2013 together accounted for one fourth of Germany's production volume in 2011 - the growth rate of the German photonics industry would be much higher, in the upper single-digit range.

In particular the industrial areas of laser systems and laser sources, image processing, measurement engineering and lithography, which in addition to higher domestic sales also profited from an even stronger export growth, contributed to the positive result. Some of these areas recorded two-digit growth rates and growth was generally more dynamic than that of the world market. The other core areas of Germany's photonics production as well, such as medical technology, optical components and systems, but also the light industry, reported substantial gains in 2014 above the level of growth in 2013.

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