



Bundesministerium
für Bildung
und Forschung



SPECTARIS



VDMA

ZVEI:

Die Elektroindustrie



KEY DATA

PHOTONICS

INDUSTRY REPORT 2013

IMPRINT

IN CHARGE OF CONTENT/PUBLISHER

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01. Management Report

BCC Business Communications Consulting GmbH, Rembrandtstraße 13, 60596 Frankfurt am Main, Germany

02. Study Results Photonics 2013

Optech Consulting Dr. Arnold Mayer, Bahnhofstraße 20A, CH-8274 Tägerwilen, Switzerland

Cover Photo: Fotolia

Berlin, Düsseldorf, Frankfurt am Main, Hamburg; May 2013

Photonics is an important global Key Enabling Technology leveraging growth and prosperity along the value chain for other industries and service sectors. To demonstrate this great potential and lever future cross sector opportunities the German Industry Associations SPECTARIS, VDMA, ZVEI supported by the German Ministry for Education and Research jointly publish the 'Photonics Industry Report 2013'.



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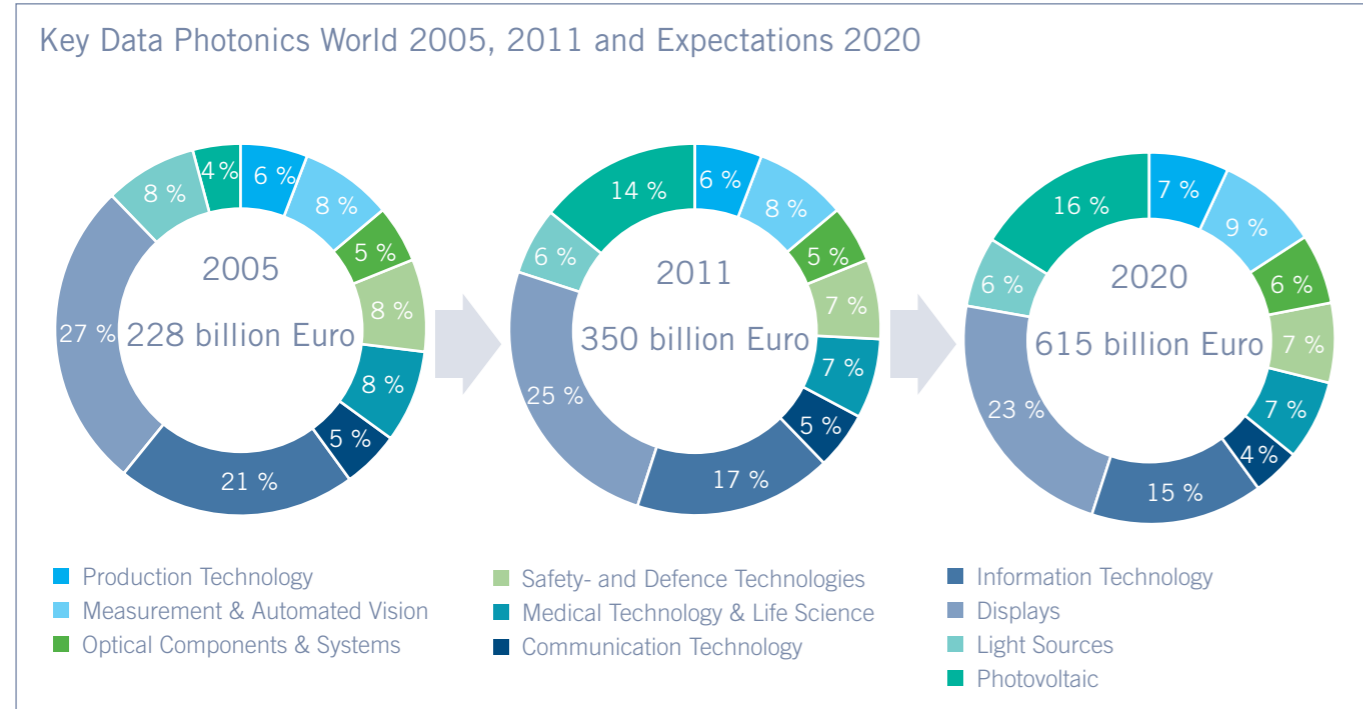
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KEY DATA OF THE GLOBAL PHOTONICS MARKET



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Study 'Photonik 2013'/Own calculations

PHOTONICS – A STRONG INDUSTRY WITH EXCELLENT PROSPECTS

Photonics World

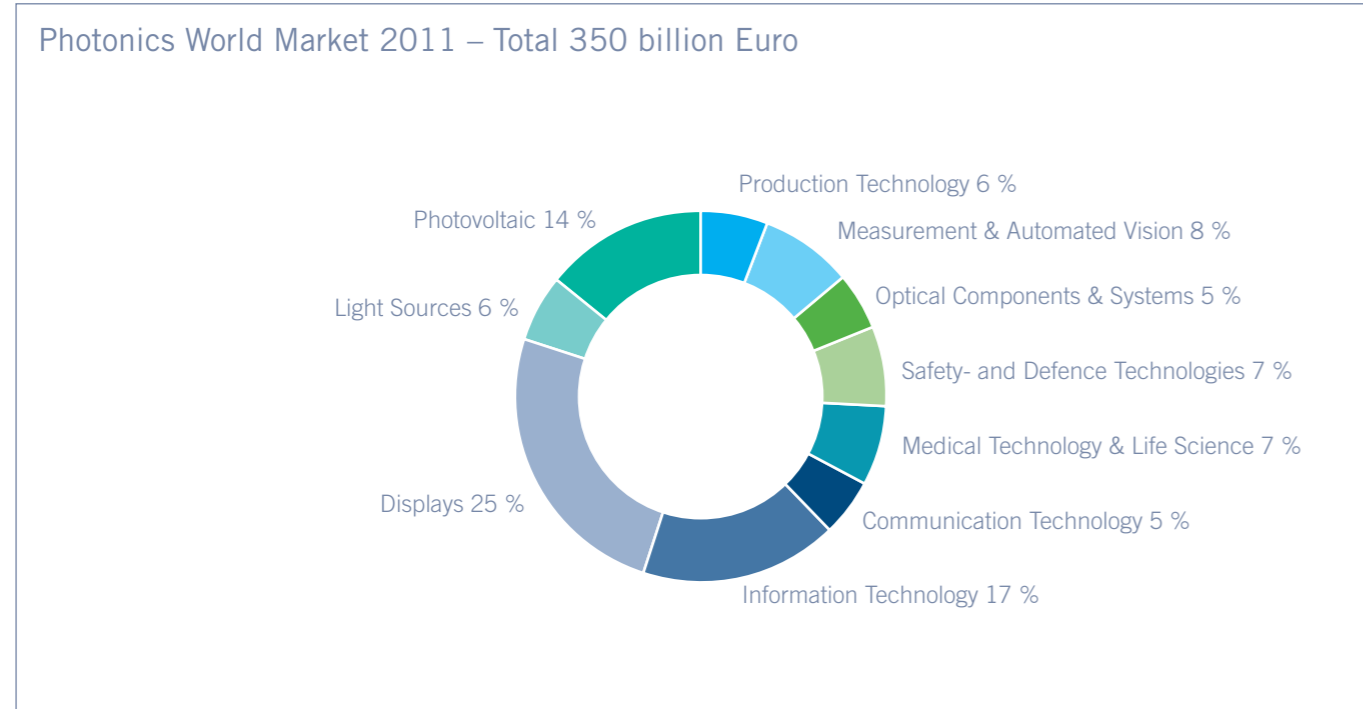
- From 2005–2011 Photonics was able to outgrow global GDP
- Expected market volume in 2020 ~ 650 billion Euro
- Global market share shift towards Asia
- China was able to catch up with global market leader Japan
- Europe was able to stabilize its market share at 18 %
- Market share loss of North America and Japan

Photonics Germany

- Domestic Photonics production grew faster than global average
- Solid growth prospects in future
- Strong export contributor and job engine
- Four strong core segments with increasing global shares
- High R&D investment rate of 9 % above industry average
- Trend towards intelligent system solutions opens up opportunities

GLOBAL PHOTONICS MARKET 2011

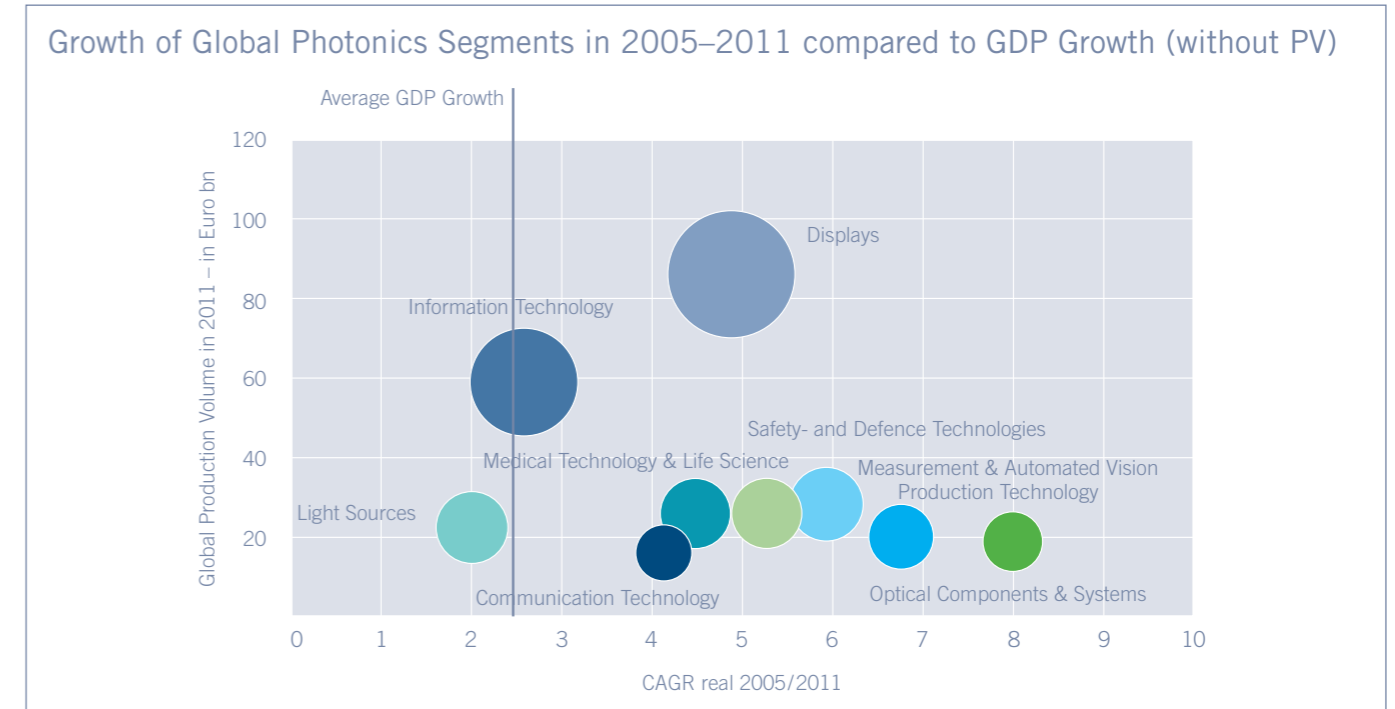
A 350 BILLION EURO MARKET WITH SOLID GROWTH



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

GLOBAL PHOTONICS MARKET 2011

STRONG SEGMENTS WITH GROWTH WELL BEYOND GDP

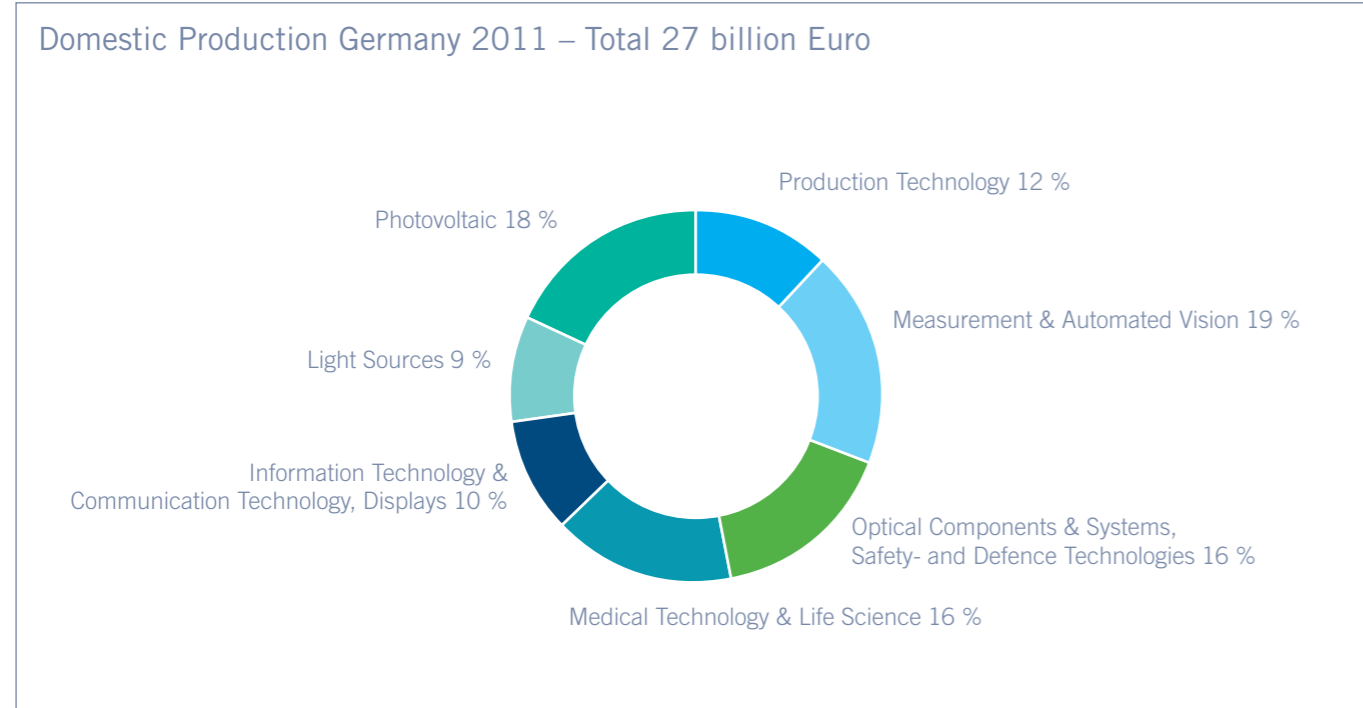


Bubble size indicates worldwide production volume in 2011

Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Study 'Photonik 2013'/Own calculations

PHOTONICS IN GERMANY 2011

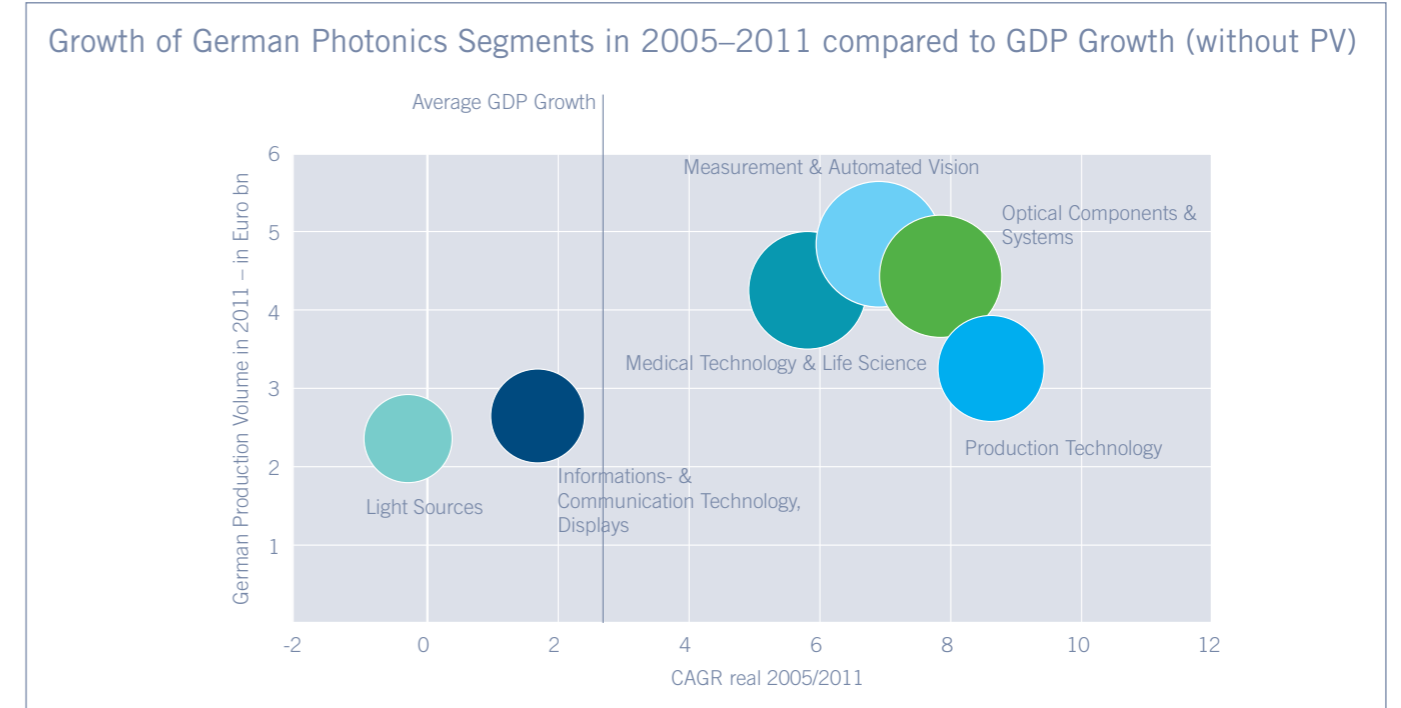
A 27 BILLION EURO MARKET WITH STRONG EXPORT CONTRIBUTION



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

PHOTONICS IN GERMANY 2011

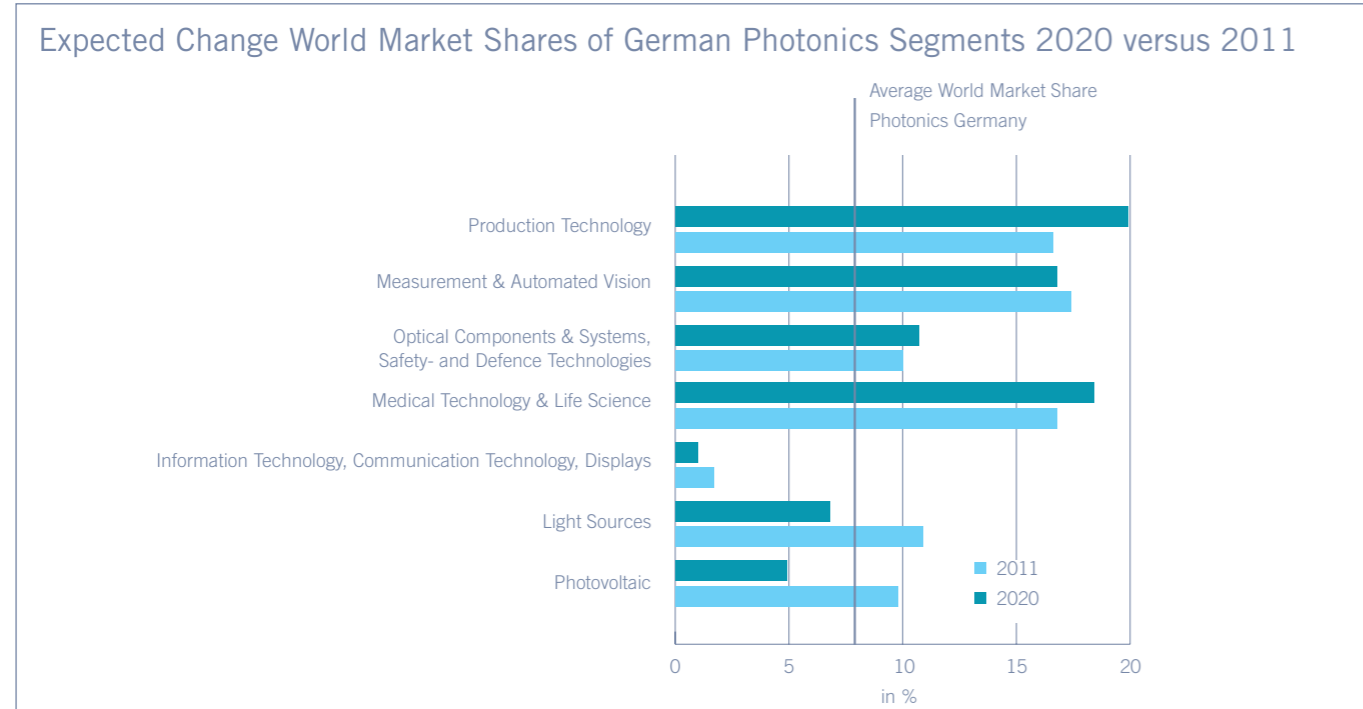
FOUR STRONG CORE SEGMENTS DRIVING GROWTH AND INNOVATION



Bubble size indicates worldwide production volume in 2011

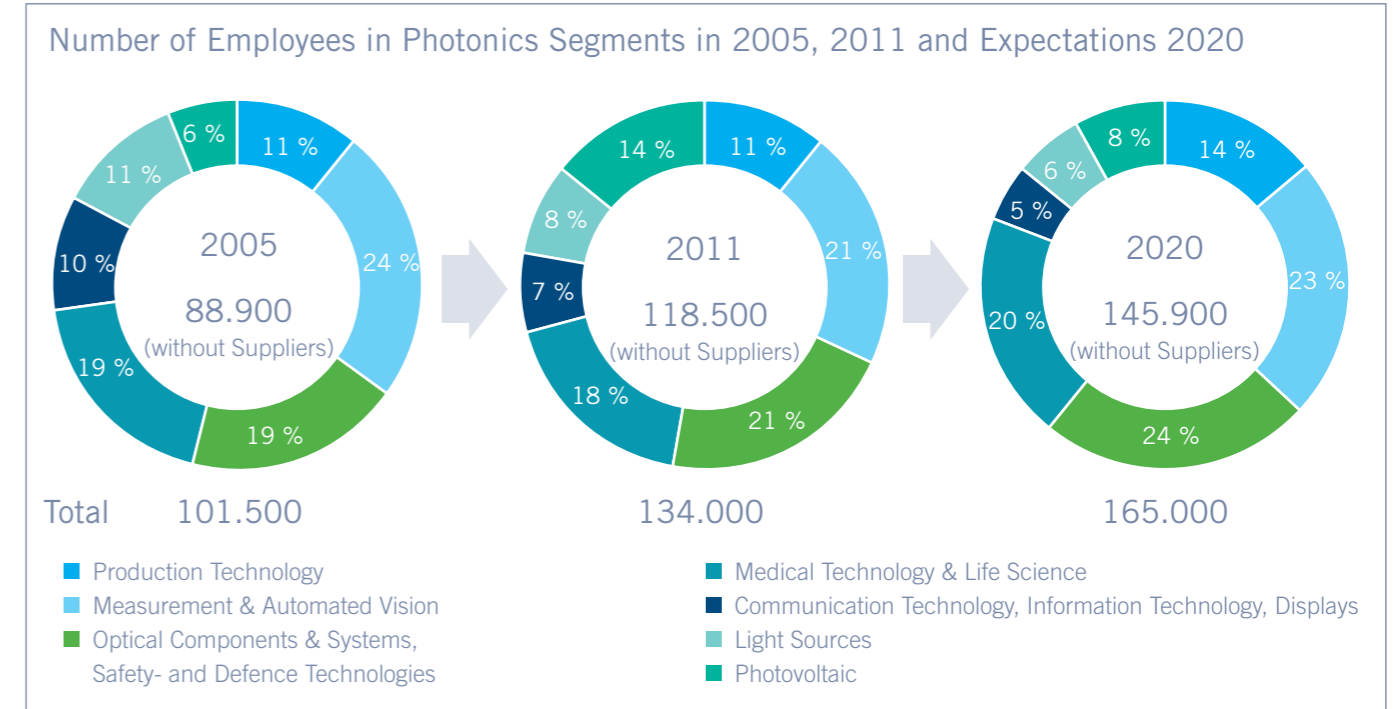
Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Studie 'Photonik 2013'/Own calculations

EXCELLENT GLOBAL POSITION IN CORE SEGMENTS



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

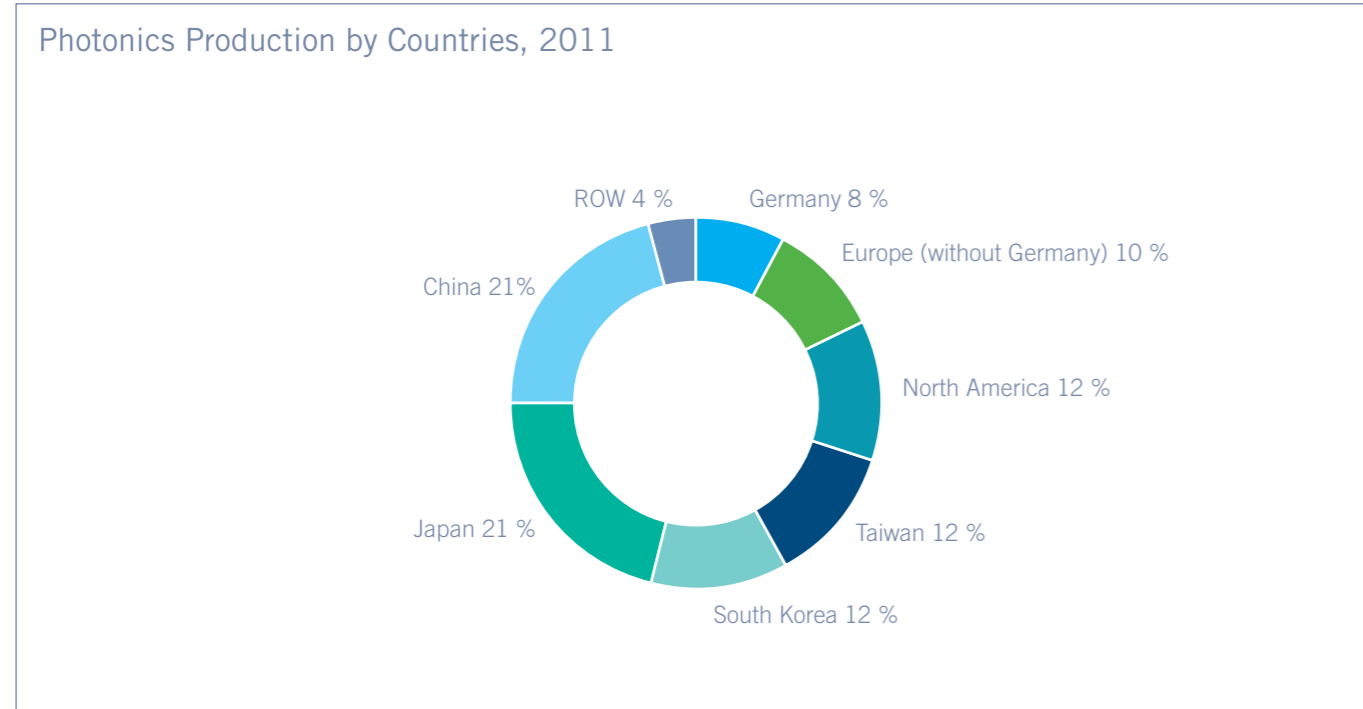
JOB ENGINE – ABOUT 30,000 NEW JOBS SINCE 2005



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Study 'Photonik 2013'/Own calculations

PHOTONICS IN THE REGIONS

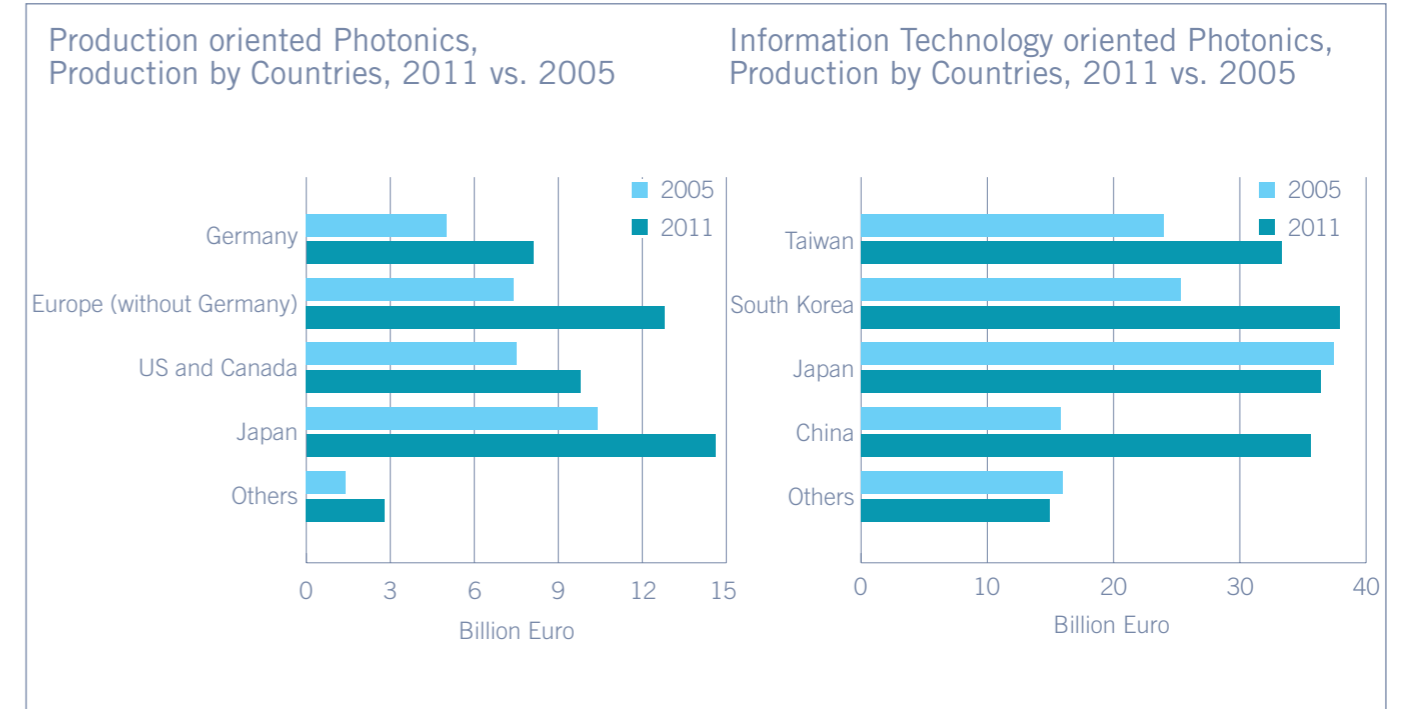
ASIA COUNTS FOR 70 PERCENT OF GLOBAL PRODUCTION



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

PHOTONICS IN THE REGIONS

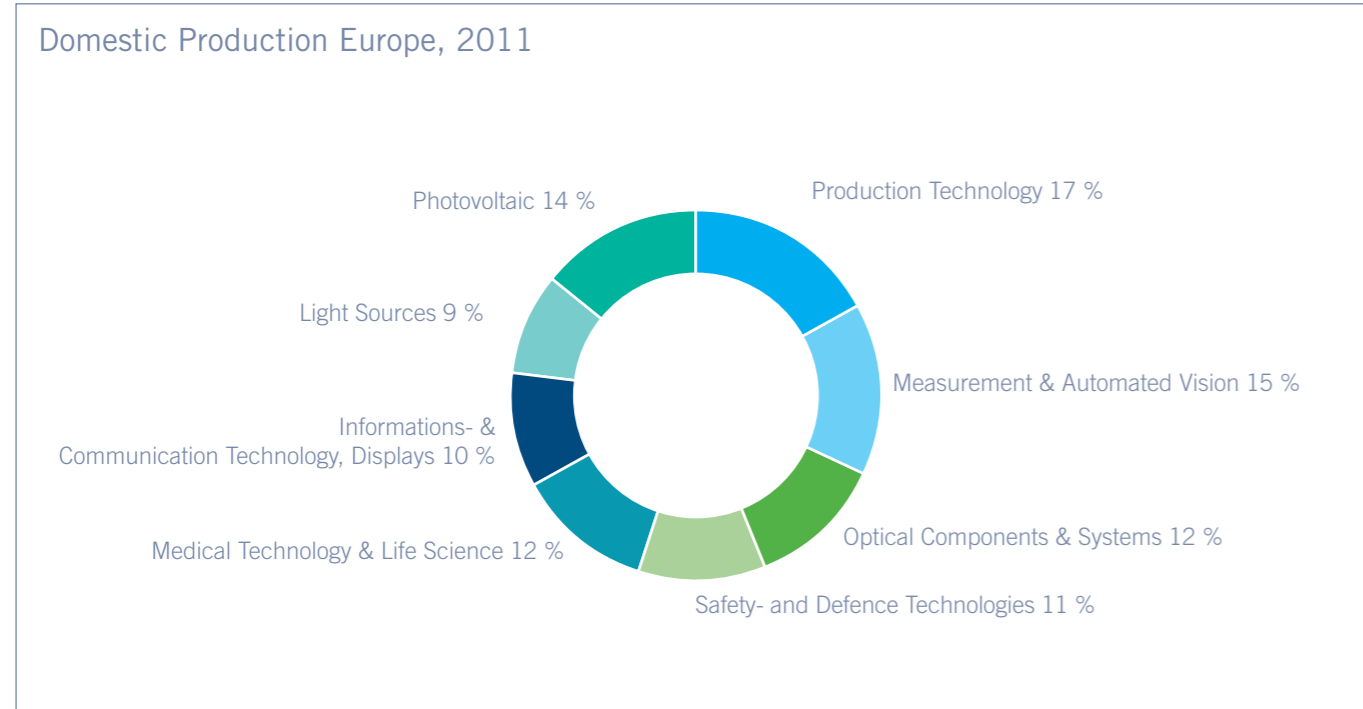
WORLD MARKET SHARES – TREND TOWARDS SPECIALISATION



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

PHOTONICS IN EUROPE 2011

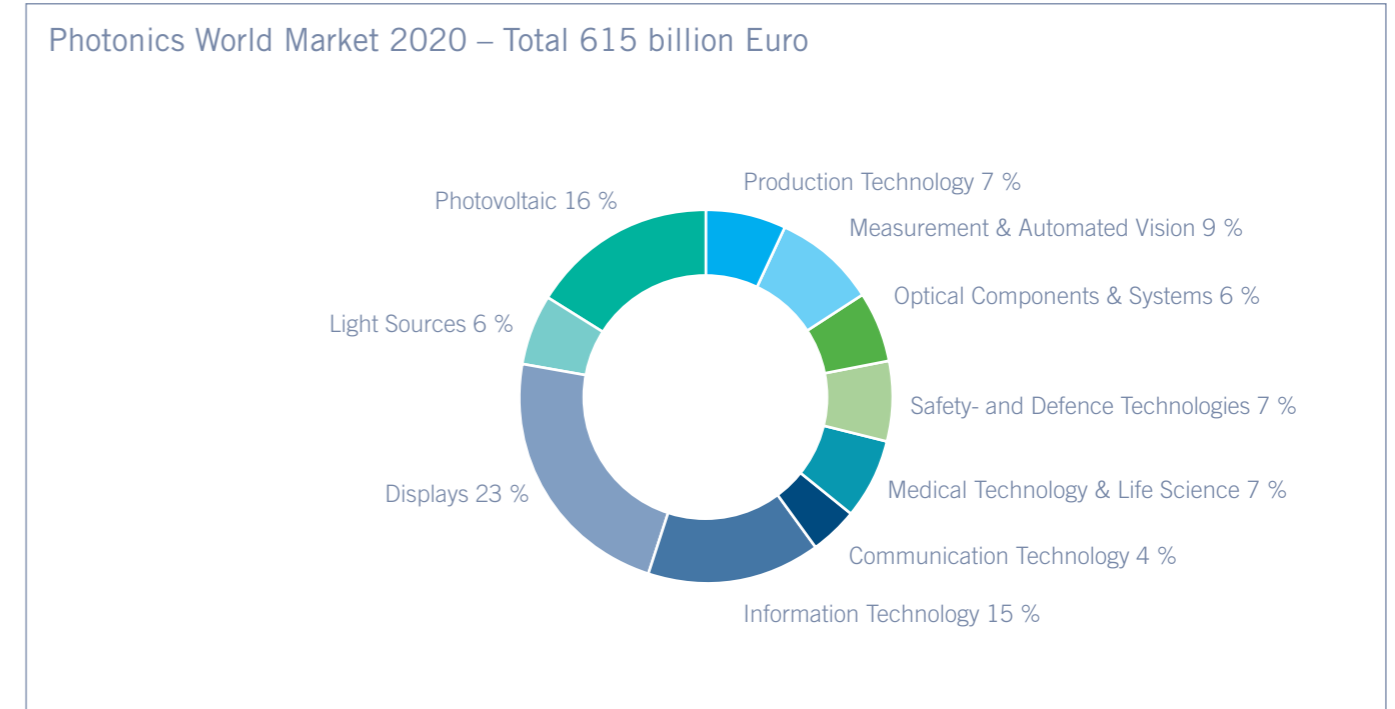
GLOBAL SHARE OF 18 PERCENT – STRONG GERMAN CONTRIBUTION



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

PHOTONICS WORLD MARKET 2020

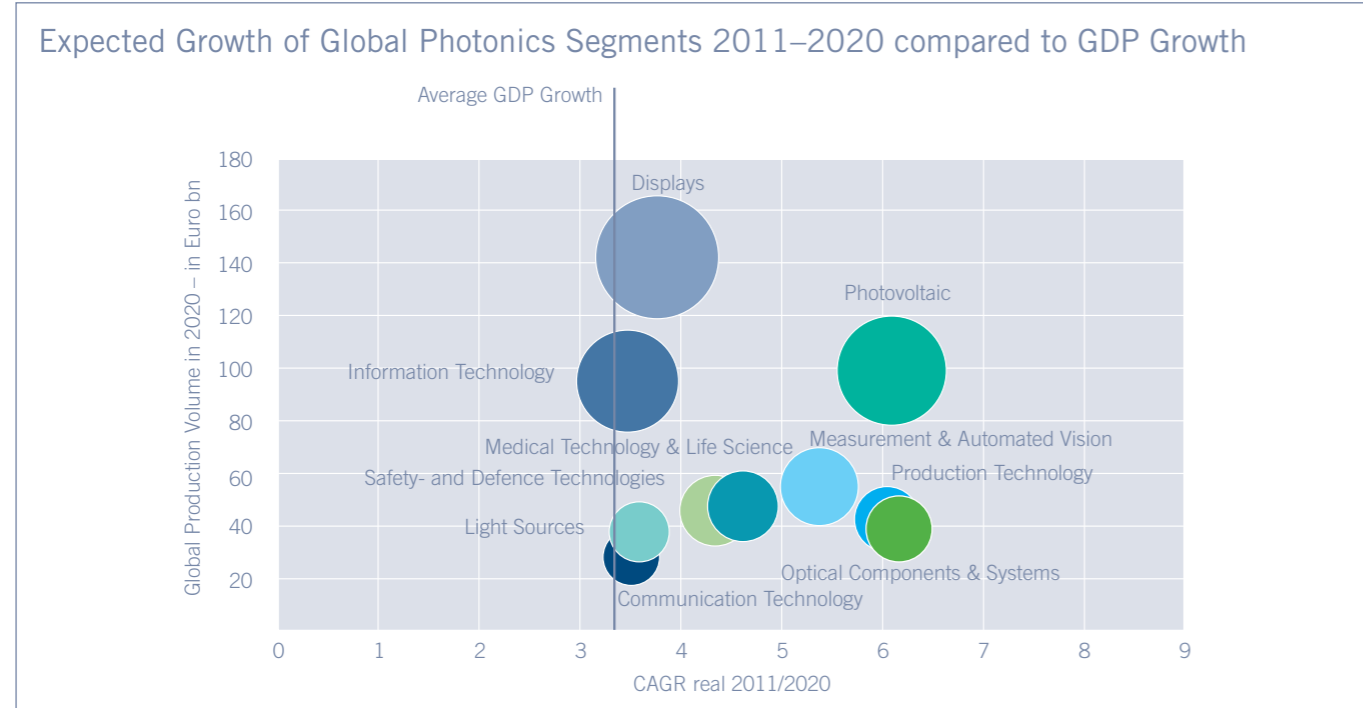
SOLID GROWTH PROSPECTS – CONTINUED GROWTH BEYOND GDP



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Part 2: Study Results, Optech Consulting, Studie Photonik 2013

PHOTONICS WORLD MARKET 2020

MOST SEGMENTS WILL CONTINUE TO OUTGROW GLOBAL GDP

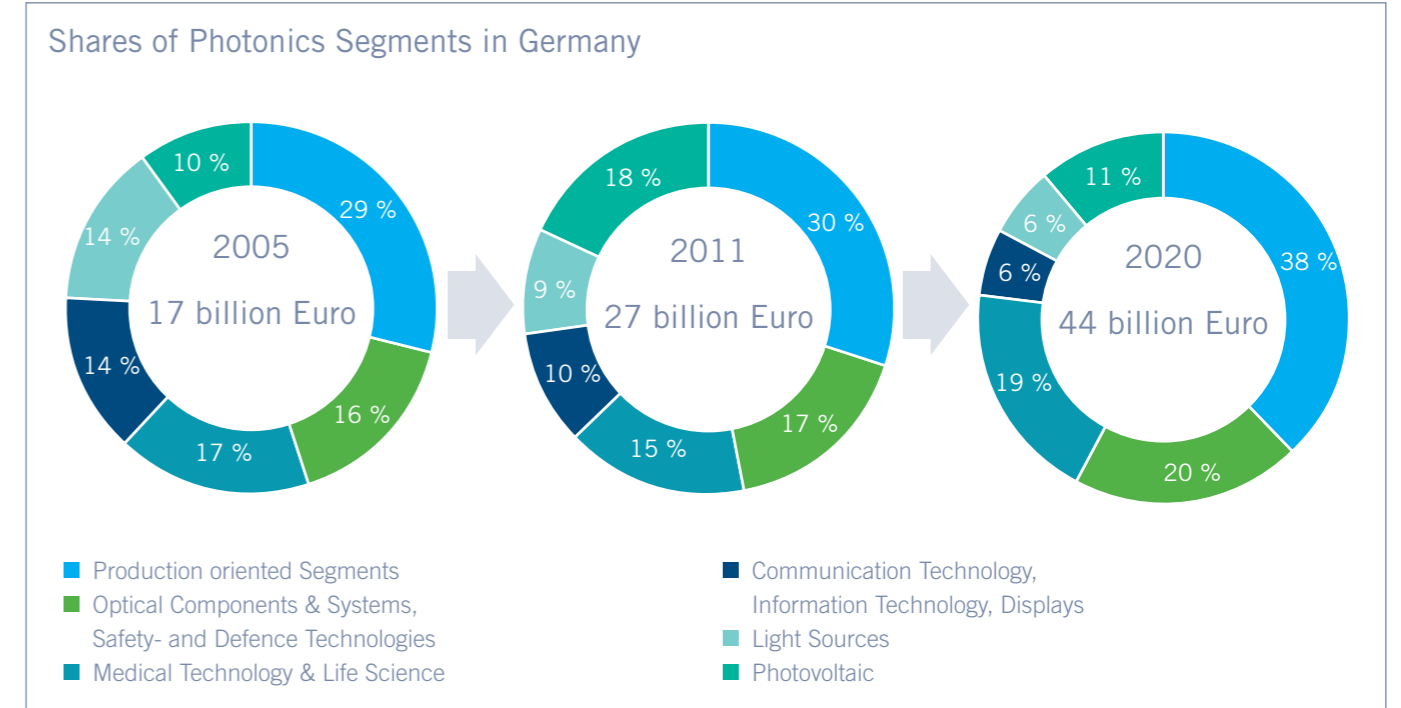


Bubble size indicates worldwide production volume in 2020

Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Study 'Photonik 2013'/Own calculations

PHOTONICS IN GERMANY 2020

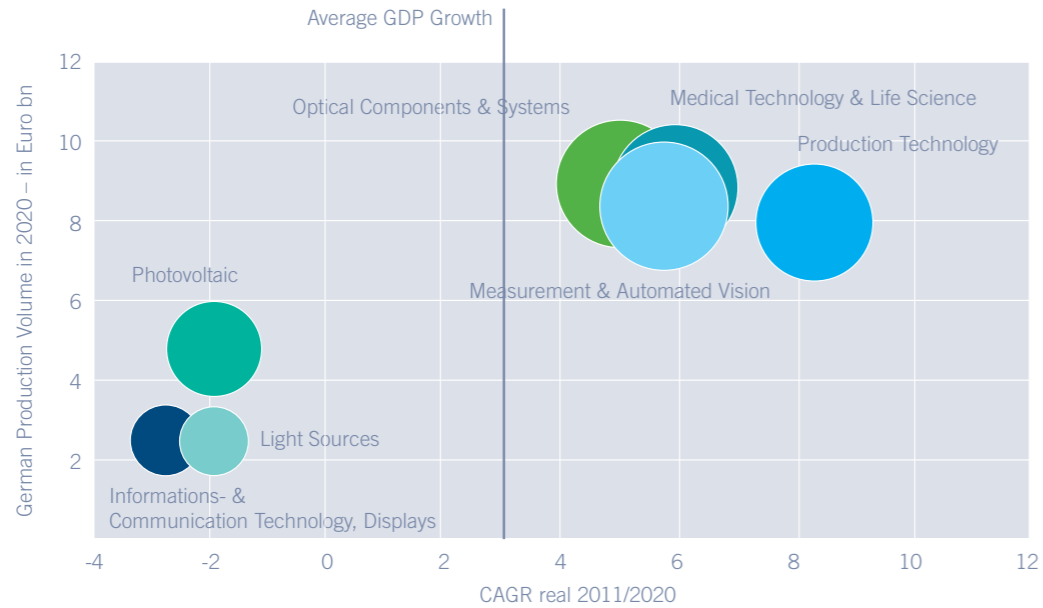
EXPECTED TO GROW TOWARDS A 44 BILLION EURO MARKET VOLUME



Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Study 'Photonik 2013'/Own calculations

FOUR STRONG CORE SEGMENTS FOSTER FUTURE GROWTH

Expected Growth of German Photonics Segments 2011–2020 compared to GDP Growth



Bubble size indicates worldwide production volume in 2020

Source: BMBF, SPECTARIS, VDMA, ZVEI (pub.), 'Branchenreport Photonik 2013', Optech Consulting, Study 'Photonik 2013'/Own calculations

DISCLAIMER

This market forecast cannot offer any guarantees of a specific future path as many uncertainties underlie the industry's development.

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