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New technologies will expand the biophotonics market to \$36B by 2017

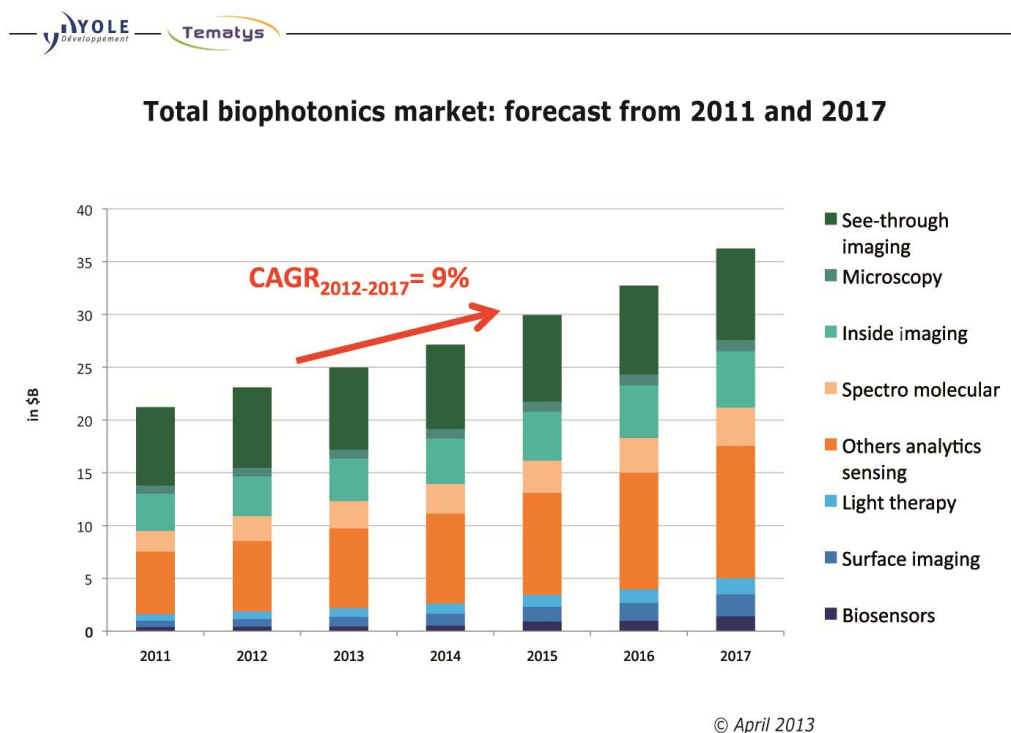
“Biophotonics Market, Focus on Life Sciences & Health Applications” report
from Yole Développement & Tematys

Lyon, France – April 3rd – Yole Développement, Tematys and EPIC announce their collaboration and release the new technology & market analysis: **“Biophotonics Market, Focus on Life Sciences & Health Applications”**. With this report, the partners propose you to learn more about the biophotonics industry.

“Biophotonics products have become increasingly rugged and cost-effective, spurring a migration from life science and healthcare applications to agro-food and environment control and monitoring”, notes Benjamin Roussel, Technology & Market Analyst, Microfluidics & Medical Technologies at Yole Développement. According to him, *“Biophotonics today has the potential to be a part of cost-effective devices targeting million-unit markets and open doors for new entrants.”* This report is distributed by Yole Développement and Tematys.

Emerging technologies and applications will make biophotonics a \$36B market by 2017!

The biophotonics market is estimated to grow from \$23B in 2012 to \$36B by 2017, with strong CAGR increases for emerging opportunities in imaging and sensing modalities. Once limited to hundreds or thousands of units/year in high-end desktop devices for life science and healthcare applications, biophotonics today has the potential to be a part of cost-effective devices targeting million-unit markets and open doors for new entrants.



This report provides extensive market data in \$M from 2011-2017, at different levels: from the total biophotonics-related market and the biophotonics system market to the biophotonics components and modules market.

Diagnostic applications are paving the way for new optical technologies

Over the last 20 years, Europe has faced increased growth of the pensioner population, recurrent epidemics, and economic issues linked to unsustainable, unbalanced healthcare systems. Today, healthcare is moving from a treatment-oriented system to a diagnostic oriented one, the end-goal being companioned diagnostic, which is promising but still far away.

The food sector faces growing demand for safer and healthier food, increased risk of epizootic diseases and food-related disorders, and threats to sustainable agricultural and fish production. All of these issues have in common a strong need to study real-time evolution of complete living organisms, or part of them (tissues, organs, cells, proteins, DNA, etc.). *“Therefore, it’s essential to develop technologies for quality and process control, as well as rapid microbiological methods suited to the entire production system”*, says Jacques Cochard, Founder of Tematys.

After providing exclusive market segmentation, this report details the market drivers and technology trends for each application. One specific report section describes the following emerging applications: agri/agro food, personalized medicine, and home care.

From bulky systems to portable devices

Driven by these opportunities, numerous scientific fields have emerged in laboratories over the last 10 years: Raman imaging and sensing, photoacoustic tomography and microscopy, Terahertz imaging, and others. These sectors have benefited from huge telecommunications investments in sources, detectors and fibers developments (handheld spectroscopy, cytometry and microscopy on a chip, high-power fiber lasers for dermatologic treatments, photoacoustic imaging, enhanced sensibility in fluorescence-based tests, etc.). Biophotonics products have become increasingly rugged and cost-effective, spurring a migration from life science and healthcare applications to agro-food and environment control and monitoring.

Also presented in this report is a specific overview of portable biophotonics technologies for in-vivo imaging and in-vitro analytic & sensing, along with a technology roadmap.

Emerging applications are granting market access to new players

New opportunities are changing biophotonics’ entire makeup. Former markets like microscopy, spectroscopy and medical imaging, all of which dealt with bulky and expensive systems, were mostly closed to new entrants. These markets’ key value was, above all else, a large installed systems base. By leaving labs and hospitals and spreading to operating rooms, general practitioners’ offices and in-line/at-line industrial control, new cost-effective photonics technologies driven by fast-growing newcomers have in the last 10 years changed the rules.

In addition to a supply chain analysis, this report provides market access information (investment required, regulation aspects) and average time for market entry, depending on application.

About Biophotonics Market, Focus on Life Sciences & Health Applications report

- **Authors:**

Benjamin Roussel, is a Market Analyst in Microfluidic and Medical Technologies fields. He holds a State qualification as a Doctor of Pharmacy from the University Claude Bernard Lyon, complemented by a master degree in Technology and Innovation Management from EMLyon Business School.

Jacques Cochard founded Tematys in 2010, a photonics dedicated market studies company. He is managing the activities in Technology Transfer, from academics to companies. Jacques is directly in charge of the Biophotonic activities at Tematys where he has advised many companies in their diversification from e.g. Telecom components to Biophotonics market. Since 2006, he is a member of the WorkGroup Biophotonic in the European platform Photonics21. He is Engineer from Ecole des Mines Nancy (Material science).

Clementine Bouye is analyst in Tematys, specialised in Biophotonics technologies and markets. She is graduate from Institute of Optics Graduate Schol (IOGS) and ESPCI.

- **Catalogue price:** Euros 5,590.00 (multi user license) - Publication date: April 2013.

For special offers and the price in dollars, please contact David Jourdan (jourdan@yole.fr or +33 472 83 01 90). This report is distributed by Yole Développement and Tematys.

- **Companies cited in the report:**

Awaiba, Advantest, AES chemunex, AGFA HealthCare, Alere, Aptina, Avinger, BD, Beckman Coulter, Biacore, Bio-Rad, Bruker, Caliper Life Science, Cobalt, Cynosure, Endra Life Science, FOSS, Fujifilm, GE Healthcare, Heidelberg Engineering, Horiba, Hoya, IBIS Technologies, Leica Microsystems, LICOR, LLTech, MedLumics, Merck Millipore, Michelson, MPA, Nikon, Nonin, Olympus, OMRON, Optovue, Oxonica, Palomar, Partec, Perkin Elmer, Prestodiag, Quanta System, Quantel Medical, Renishaw, Seattle Sensor Systems, sensiQ, Sony, SpectraFluidics, St. Jude Medical, Thermofisher scientific, Topcon, Tower Jazz, Visualsonics, Volcano, Xfab, Zeiss...

About Yole Développement - www.yole.fr

Founded in 1998, Yole Développement has grown to become a group of companies providing marketing, technology and strategy consulting, media in addition to corporate finance services. With a strong focus on emerging applications using silicon and/or micro manufacturing, Yole Développement group has expanded to include more than 50 associates worldwide covering MEMS, Compound Semiconductors, LED, Image Sensors, Optoelectronics, Microfluidics & Medical, Photovoltaics, Advanced Packaging, Nanomaterials and Power Electronics. The group supports industrial companies, investors and R&D organizations worldwide to help them understand markets and follow technology trends to develop their business.

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About Tematys - www.tematys.com

TEMATYS is an independent consulting company dedicated to studies and strategy in optics, photonics, sensors, material engineering and their application markets. TEMATYS' clients are mainly companies of any size, from international groups to SMEs and start-up. The company has also developed a special expertise in R&D valorization and marketing of emerging technologies for Research Organizations and Laboratories, and provide strategic views on optics and photonics markets for publics for clusters and publics agencies. What they want: understand their markets - plan out strategies - Market entry. Study photonic markets, elaborate strategies for developing and selling innovative photonic products and technologies - Sourcing. Detect, benchmark and assess new technologies that could increase their competitiveness on application markets (life science, defense, aerospace...).

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About EPIC - www.epic-assoc.com

The European Photonics Industry Consortium, EPIC, has three important activities: dialogue with the European Commission, ownership of the European roadmap for photonic technologies, and developing the critical human resource of trained scientists and engineers in the European economic area. EPIC organises and runs European workshops on photonics technologies.

EPIC is composed of 80 member organizations and over 400 associate members. The strength and influence of EPIC throughout Europe comes from getting its members to work together. EPIC members played the leading role in creating the Photonics21 platform. For more information: www.epic-assoc.com

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