BIOMEMS

The BioMEMS market is expected to grow rapidly, from $1.9B in 2012 to $6.6B in 2018! Microsystems integration is fast becoming a key added-value for system manufacturers.

Microsystem devices have become increasingly visible in the Healthcare market by serving as solutions adapted to the requirements of various applications. The usefulness of these devices is two-fold: for one, they improve medical device performance for the patient; and secondly, they offer competitive advantages to system manufacturers. For example, the introduction of accelerometers in pacemakers has revolutionized the treatment of cardiac diseases.

The Microsystem technologies market for Healthcare applications looks promising, and should reach $6.6B by 2018. Yole Développement has followed this market’s innovations and key players for the last several years, and based on an accurate analysis of the market’s last three years, this new report consolidates market data for 2010-2012 and provides forecasts for 2012-2018.

The devices considered in the BioMEMS 2013 report are:
- Pressure sensors
- Silicon microphones
- Accelerometers
- Gyroscopes
- Optical MEMS and Image sensors
- Microfluidic chips
- Microdispensers for drug delivery
- Flow meters
- Infrared temperature sensors
- Emerging MEMS (RFID, strain sensors, energy harvesting)

For each of the above, the report provides a market description, the main device and system manufacturers, current market data, and forecasts. Additionally, main technological trends are reviewed.
Microsystem devices have applications in four key healthcare markets: pharmaceutical, in-vitro diagnostics, medical devices and medical home care. Each of these markets has its own unique dynamics, players and global drivers. Motivation for the acceptance of BioMEMS technologies is highly dependent on each individual market. Whereas the acceptance of microsystems is linked to sensibility and automation constraints in the pharmaceutical market, in the in-vitro diagnostic market it’s all about portability and cost reduction; while the medical devices market is focused on addition of functionalities. Concerning the home care market, the motivations are to increase system safety and connectivity. The report reviews all four of these markets in a detailed manner.

Yole Développement’s experts have identified a number of applications for each device type. These applications can be placed into five groups: patient monitoring, patient care, medical imaging, in-vitro diagnostic testing and drug delivery. For each of these groups, the report provides an overview of devices and key market drivers, along with market data.

The BioMEMS 2013 report also pays particular attention to Chinese microsystems players, as a number of new players have recently entered the market.
OBJECTIVES OF THE REPORT
The report objectives are as follows:

- Provide a robust analysis of the Micro Devices used to develop innovative solutions for Healthcare applications.
- Compare Yole Développement’s previous forecast with current market data and draw conclusions.
- Deliver the following information for each device category: market insights, main device manufacturers and system integrators, and main trends.
- Describe the market drivers per application group.

RELATED REPORTS
- X-ray and Endoscopy Medical Imaging Applications & Technology Trends
- Emerging Markets For Microfluidic Applications
- Status of the MEMS Industry
- Point of Care Testing: Applications for Microfluidic Technologies

COMPANY CITED IN THE REPORT (NON-EXHAUSTIVE)

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