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## Frost & Sullivan: Boom in Smart Pills To Peak by 2018-2020



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Technological advances drive innovation in minimally invasive and remote controlled devices

Increasing demand for easy-to-use diagnostic and precise therapeutic tools is proving to be a driving force for innovation in the development of smart pills. While the areas of imaging and sensing are benefiting from successfully commercialised smart pill applications, the introduction of such tools in surgery and drug delivery has not yet been clinically approved. Wireless capsule endoscopes and ingestible sensors designed for monitoring internal signs are being focused on and given commercialisation preference.

Frost & Sullivan's new analysis entitled 'Innovations in Smart Pills' is highlighting a distinct trend towards minimally invasive and remote controlled devices for diagnosis and therapy. Invasive endoscopes are being replaced by smart pills in gastrointestinal imaging, and the global progress made in the field of enabling technologies, such as wireless communications, remote patient monitoring, and miniaturisation, will further broaden smart pill applications.

Technical Insights Research Analyst Bhargav Rajan explained that the smart pills market would most probably experience a wave of innovative products in the coming five to seven years, providing great potential for the industry and academia to collaborate. Acknowledging that the product designs originating from within the industry lead to ground-breaking devices such as capsule endoscopes, Rajan added that product differentiation and value enhancement could also be achieved by leveraging ideas from basic and applied sciences at universities and research centers.

As this is a nascent market, the need for confidence building among involved stakeholders such as physicians, patients and researchers is great. Implementing strategic and business partnerships, as well as clinical and scientific education, will contribute towards winning the trust of regulatory authorities, investors and users as well.

Additionally, it is vital that companies take advantage of government funding available to universities and small businesses; a point of particular importance, given that the uneven distribution of venture capital investment often prevents start-up companies from growing into remarkable businesses.

With company valuations having reduced over the past few years, financial support can be gained by setting up partnerships with labs that have access to funds for basic and applied sciences. This can in turn be leveraged into commercial products, and government-sponsored research projects have actually given rise to formidable academia-industry research collaboration. Particularly frequent in the European Union, this type of research consortia results in successful developments that commercialise technologies and enhance the possibilities of the smart pills.

Rajan suggested that smaller companies, which were unable to successfully transform a technological advancement into a commercial product, could explore licensing them to companies with established solutions in the market. New market participants could thus count on technology incubators to enable the transition of their technology towards commercialisation.

It is also possible for leading companies who are eager to access new regions, to liaise with local medical device companies and benefit from their expertise and established marketing networks. Europe and emerging countries in East Asia are for centres of activities for investment opportunities, particularly for market entrants.

Source: [Frost & Sullivan](#)

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