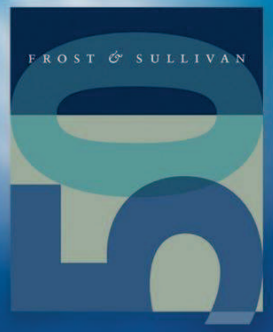
Sensor Technology Innovations Enabling Quantified-Self (Technical Insights)

Nine Pronged Technology Assessment-- New Era of Self-Monitoring Devices



D547-TI

June 2014

FROST & SULLIVAN

Executive Summary

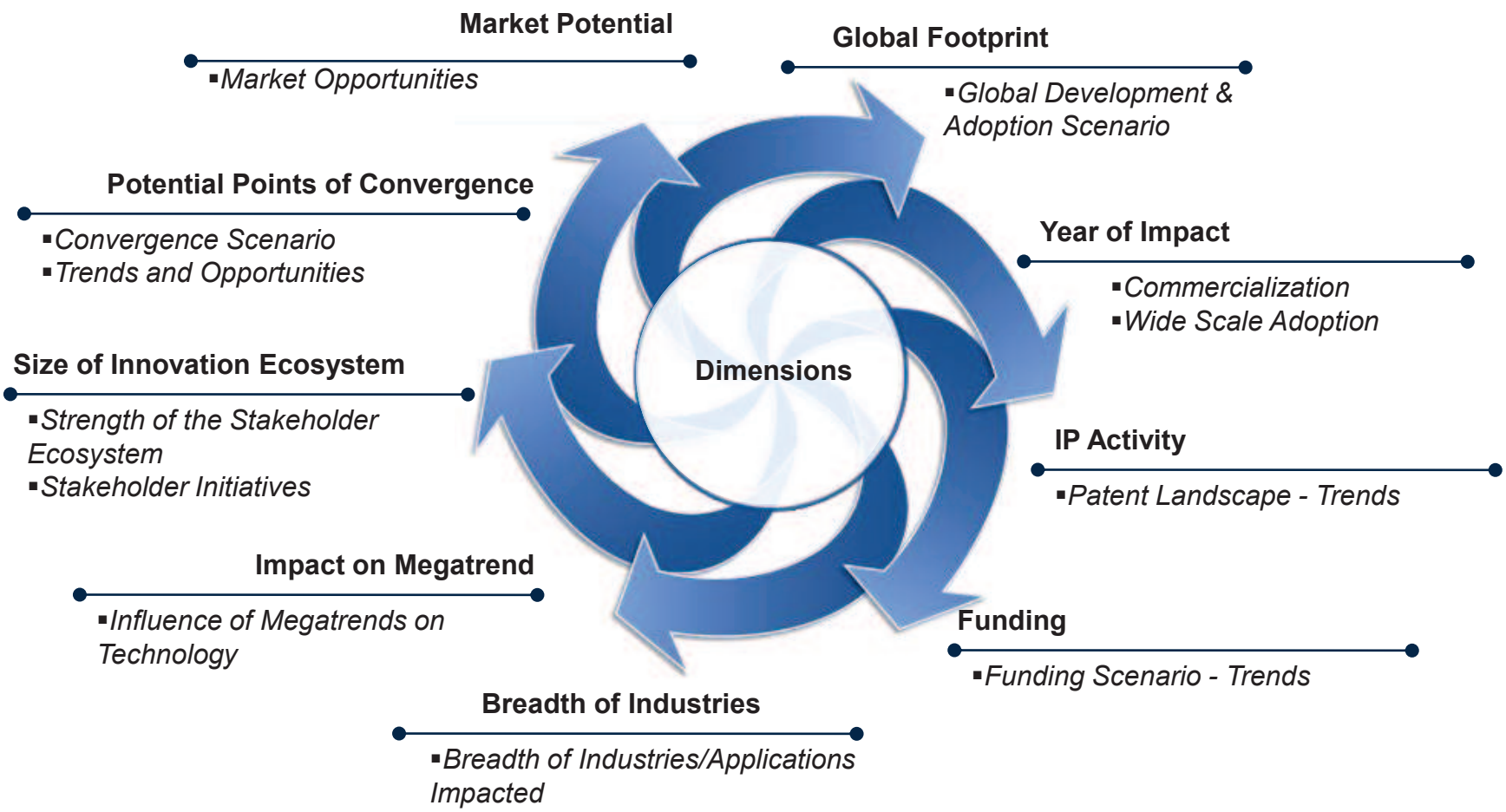
Research Scope

Since the establishment of the quantified-self movement in 2007 in Silicon Valley, the concept has expanded covering about 50 cities worldwide. The need for sensor-enabled devices to monitor and track personal lives is fuelled by the growth in health and wellness data. Many companies offering consumer electronic devices are spearheading the trend with innovative designs of developing self-tracking devices. Self-trackers use sensing devices to measure everything they do to improve the day-to-day activities of the individual, which includes fitness, diet, sleep, stress, fertility, and many others.

The miniaturization trend and declining price of sensors enable such self-monitoring devices to capture more data about users than before. Constant development to gain deeper insights into human mental and physical conditions are underway. Advances in sensor technology are enabling quantified-self to reach deeper into the day-to-day life activities of the people to capture and reveal varied data. This research service provides technology and markets insights on sensors enabling quantified -self from nine dimensions highlighted below.

- Year of impact
- IP Activity
- Funding
- Breadth of Industries
- Impact on Megatrend
- Size of Innovation Ecosystem
- Global Footprint
- Potential Points of Convergence
- Market Potential

Nine Dimensional Analysis of Technology Assessment



Key Findings

The market for quantified-self is still in the embryonic stage and is expected to grow rapidly in the future. Many companies are successfully completing crowd sourcing activities, which indicates high interest generated in the domain.

Year of Impact

- 2017 is the expected year of impact interms of adoption
- Wearable devices will take time to gain high traction.
- Mobile apps are already extensively used.

IP Activity

- Patent publication trends indicate an increase over the past few years.
- North American companies lead the patent publishing trend.

Funding Scenario

- Crowd funding has emerged as the most prominent source of funding to accelerate developmental efforts in the domain.

Breadth of Industries Impacted

- Quantified-self technology will impact the consumer electronics, sensors, health care, and ICT industries opening up new avenues for expanding the capabilities of the technology to newer levels.

Impact on Megatrend

Megatrends such as social trends, new business models, health, wellness and well-being as well as connectivity and convergence influences the quantified-self technology.

Size of Innovation Ecosystem

- Companies are competing to develop highly innovative designs for self tracking application in wearable electronics sector.
- Development of mobile apps are dedicated towards collecting data from smartphones and tablets.

Global Footprint

- North America is the key market for quantified-self followed by Europe.
- Asia Pacific is slowly gaining momentum with interest observed amongst some of the major tier companies.

Potential Points of Convergence

Convergence of quantified-self with technologies in ICT, healthcare, and sports sectors opens up opportunities for new product development, new markets, and new business models.