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Annual shipments of connected wearables will reach 168 million in 2019

The wearable form factor enables hands-free operation and allows the user to multitask and get immediate access to information. It also enables continuous recording of useful data such as body metrics, location and environmental data. Berg Insight’s definition of a connected wearable is a device meant to be worn by the user and which incorporates data logging and some sort of wireless connectivity. Connected wearables are already being widely used in professional markets. The exploding smartphone adoption, cloud services, miniaturised hardware, sensor technology and low power wireless connectivity have enabled connected wearables to emerge as a new promising consumer segment as well. The number of applications for wearable technology is vast and includes imaging, augmented reality, media playback, navigation, data displaying, authentication, gesture control, monitoring and communication.

A plethora of device categories such as smartwatches, fitness & activity trackers, smart glasses, people monitoring devices, medical devices and wearable computers target various market segments including infotainment & lifestyle, fitness & wellness, people monitoring & safety, medical & healthcare, enterprise & industrial and government & military.

The market for connected wearables has entered a strong growth phase that will last for many years to come. Berg Insight estimates that shipments of connected wearables reached 19.0 million units in 2014. The market is expected to grow at a CAGR of 54.7 percent to reach shipments of 168.2 million by 2019. Fitness & activity trackers is the largest product category and accounts for a majority of today’s shipments. Decreasing prices and new form factors will enable fitness & activity trackers to reach shipments of 42.0 million units in 2019. The smartwatch category has also started to reach significant volumes and is predicted to become the largest device category reaching shipments of 90.0 million devices in 2019, up from 5.0 million units in 2014. Limited availability, high prices and privacy concerns have so far resulted in that sales of smart glasses have been modest. Promising use cases in professional markets as well as in niche consumer segments will enable smart glasses to become the third largest category of connected wearables and reach shipments of 11.0 million devices in 2019, up from only 0.03 million units in 2014. Connected wearables such as cardiac rhythm management devices, ECG monitors and mobile Personal Emergency Response Systems (mPERS) are already common in the medical & healthcare and people monitoring & safety segments. Annual shipments of medical devices and people monitoring & safety devices are forecasted to grow to 7.1 million and 3.1 million at the end of the forecast period respectively. New product innovation is also anticipated in the next coming years that will result in successful products not known today and annual shipments of these are predicted to grow at a CAGR of 184.8 percent from 0.08 million units in 2014 to reach 15.0 million units in 2019.

Bluetooth will remain the primary connectivity option in consumer centric wearables throughout the forecast period and smartphones will act as the principal hub for remote connectivity. The number of active cellular network connections from wearables is projected to grow from 0.5 million in 2014 to reach 26.9 million connections in 2019. The growth is driven by increasing adoption of cellular in the smartwatch category and the high adoption in the people monitoring & safety segment in which cellular connectivity already is the main technology for many types of devices. The most common connectivity option for wearable medical devices will be low power NFC technologies and Bluetooth which enable remote connectivity via medical monitoring system hubs. BYOD will have an increasing impact on the connected medical device category, especially for patient-driven models of connected care.

Numerous merger & acquisition activities have taken place among wearables players in the past years. In August 2012, Google acquired the smartwatch vendor WIMM Labs. In April 2013, Jawbone acquired the wireless health tracking device vendor BodyMedia. In November 2013, the sports apparel vendor Under Armour acquired MapMyFitness. Intel acquired the wearable device vendor Basis Science in March 2014. Three notable transactions concerning connected wearables took place in the medical & healthcare segment during 2014. The major medical device vendor Covidien acquired the wearable medical device specialist Zephyr Technologies. Medtronic acquired Corventis which has developed a wireless ECG monitoring patch. Furthermore, the major medical technology specialist St. Jude Medical acquired CardioMEMS which has developed an implantable and wireless heart monitoring system.

This report answers the following questions:

- Which are the main device categories within connected wearables?
- What are the main drivers on this market?
- What are the general technology trends for connected wearables?
- When will cellular connectivity be a common option in connected wearables?
- Which connected wearables offer the best potential for embedded cellular connectivity?
- Which are the leading wearables vendors?
- How will the markets for smart watches and fitness trackers converge?
- What new innovative wearables could become successes?
Executive summary

1.1 Introduction
1.1.1 Background
1.1.2 Definitions

1.2 Market segments
1.2.1 Infotainment & lifestyle
1.2.2 Fitness & wellness
1.2.3 People monitoring & safety
1.2.4 Medical & healthcare
1.2.5 Enterprise & industrial
1.2.6 Government & military

1.3 Technologies and platforms
1.3.1 Mobile operating systems and platforms
1.3.2 Battery and processor technologies
1.3.3 Wireless technologies
1.3.4 Sensors
1.3.5 Display technologies and user interface

2 Value chain and vendor landscape
2.1 Enabling technologies
2.1.1 Hardware component vendors
2.1.2 Mobile operating system vendors

2.2 Devices
2.2.1 Smartphone and consumer electronics manufacturers
2.2.2 Apparel and accessories companies
2.2.3 Specialist vendors

2.3 Connectivity services and IoT platforms
2.3.1 Wireless operators and managed service providers
2.3.2 IoT platform providers

2.4 Apps and content
2.4.1 Software application developers and content providers

3 Smartwatches
3.1 The smartwatch market
3.1.1 Market size and major vendors
3.1.2 Established smartphone vendors and watch brands enter the market

3.2 Smartwatches and wireless connectivity
3.2.1 Bluetooth is the most common connectivity option today
3.2.2 Cellular connectivity introduced in a handful of smartwatches

3.3 Company profiles and strategies
3.3.1 Samsung: Multi-platform and multi-device strategy
3.3.2 Pebble: From crowdfunding to mass market success
3.3.3 Sony: Smartwatch veteran gets new life from Android Wear
3.3.4 Apple: Enough scale to bet on its own platform
3.3.5 Shanghai Nutshell Electronic: Focus on China

4 Smart glasses
4.1 The smart glasses market
4.1.1 Limited availability and experiments with features and target markets
4.1.2 Imaging glasses, 3D viewing glasses and wearable VR/AR solutions
4.1.3 Growth opportunities in the professional market segments

4.2 Smart glasses and wireless connectivity

4.3 Company profiles and strategies
4.3.1 Recon Instruments: Focus on sports and an active lifestyle
4.3.2 Vuzix: Wearable display specialist turns to the enterprise segment
4.3.3 Epson: Aims at both professional and consumer segments
4.3.4 Google: Glass Explorer Program showcases a plethora of use cases
4.3.5 Kopin: Provides technology solutions to the smart glasses market

5 Connected fitness and activity trackers
5.1 The connected fitness and activity tracking market
5.1.1 Market size and major vendors
5.1.2 Fitness and activity tracking bands
5.1.3 Bluetooth connected sports watches
5.1.4 Other form factors

5.2 Fitness and activity trackers and wireless connectivity
5.3 Company profiles and strategies
5.3.1 Jawbone: Wearable pioneer now offers a family of activity trackers
5.3.2 Fitbit: Activity tracker market leader returns with new products
5.3.3 Microsoft: Enters the market with activity band and cross platform service
5.3.4 Garmin: GPS sports watch giant introduces connected features
5.3.5 Omnisignal: Clothing with embedded sensors

6 People monitoring and safety devices
6.1 Family locator and consumer oriented locator devices
6.1.1 Child locator devices
6.1.2 Wearable locator devices for adults

6.2 Lone worker protection and offender monitoring devices
6.2.1 Lone worker protection devices
6.2.2 Offender monitoring devices

6.3 Next-generation telecare and mPERS
6.3.1 Mobile telecare and mPERS devices
6.3.2 Telecare activity monitoring solutions

6.4 Company profiles and strategies
6.4.1 Filip Technologies: Developer of the Filip child locator wristwatch
6.4.2 hereO: Start-up set to launch the hereO family locator watch and app
6.4.3 Everon: Developer of GPS wristwatches for telecare and lone workers
6.4.4 Numerex: Enters people monitoring markets through acquisition of Omnilinx
6.4.5 Limmex: Swiss telecare watch vendor ramping up sales globally
6.4.6 LOSTnFOUND: Swiss asset tracking vendor entering the telecare market

7 Medical devices and miscellaneous
7.1 Medical devices
7.1.1 The mHealth and home monitoring market
7.1.2 Regulatory environment
7.1.3 Wearable medical devices and implants

7.2 Additional connected wearable devices
7.2.1 Wearable industrial computers

7.2.2 Military devices
7.2.3 Authentication and gesture control devices
7.2.4 Other wearable devices

7.3 Company profiles and strategies
7.3.1 Medtronic: Connected wearables for ECG monitoring and CRM patients
7.3.2 Dexcom: Connected continuous glucose monitoring
7.3.3 Zephyr Technology: Betting on connected wearables
7.3.4 Withings: Connected health and wellness aimed at the consumer market
7.3.5 Motorola Solutions: Wearable computers for the enterprise market

8 Market forecasts and trends
8.1 Global market outlook
8.1.1 Market segments
8.1.2 Regional market data
8.1.3 Cellular connections

8.2 Market forecasts – smartwatches
8.2.1 On the verge to reach mass market adoption

8.3 Market forecasts – smart glasses
8.3.1 Opportunities in the professional and niche consumer segments
8.3.2 Connectivity strategies

8.4 Market forecasts – fitness and activity trackers
8.4.1 Wrist worn activity trackers will face fierce competition from smartwatches
8.4.2 High growth in other form factors

8.5 Market forecasts – people monitoring and safety devices
8.5.1 Wearables will be the most common form factor in family locators
8.5.2 Great potential in next-generation telecare and mPERS
8.5.3 Modest growth in offender monitoring and lone worker devices

8.6 Market forecasts – medical devices
8.6.1 Cardiac Rhythm Management is the largest connected device category
8.6.2 Connectivity strategies

8.7 Market forecasts – other connected wearables

8.8 Market trends and drivers
8.8.1 Wearables are at the intersection of fashion and technology
8.8.2 The myriad of use cases is wearables’ killer app
8.8.3 Long-term engagement: bringing it all together
8.8.4 Wearables raise privacy and security concerns
8.8.5 New M&A activities anticipated to take place in the wearables industry

Glossary
**About the Author**

**Johan Svanberg** is a Senior Analyst with a Masters degree from Chalmers University of Technology. He joined Berg Insight in 2007 and his areas of expertise include M2M/IoT markets and connected wearables.

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