

Summary

Executive summary

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 have for long been widely used in professional markets. The high 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, smart clothing, 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 96.5 million units in 2016. The market is expected to grow at a CAGR of 22.2 percent to reach shipments of 262.5 million by 2021. 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 81.0 million units in 2021. The smartwatch category has also started to reach significant volumes and is predicted to become the largest device category reaching shipments of 115.0 million devices in 2021, up from 20.7 million units in 2016. 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 reach shipments of 13.0 million devices in 2021, up from 1.2 million units in 2016. 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 16.0 million and 9.2 million respectively by the end of the forecast period. Smart clothing is expected to gain significant traction within the next five years. Low consumer awareness, overlapping use cases and a focus on elite and professional applications have so far limited the adoption among the general public. Berg Insight forecasts that shipments of smart clothing will reach 18.3 million units in 2021, up from 1,560,000 units in 2016. Finally, annual shipments of wearables not covered by the above product categories are predicted to grow at a CAGR of 48.2 percent from 1.4 million units in 2016 to reach 10.0 million units in 2021.

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 3.3 million in 2016 to reach 47.7 million connections in 2021. 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. Clothing Plus which develops textile-integrated wearable sensor solutions was acquired by Jabil Circuit, a global provider of manufacturing and supply chain solutions in June 2015. Later in August 2015, the popular fitness app and wearable device vendor Runtastic was acquired by Adidas for US\$ 240 million. Fossil Group agreed to acquire the connected wearable device vendor Misfit for US\$ 260 million in November 2015. Logitech acquired the earphone maker Jaybird in April 2016. During the same month, Nokia announced its acquisition of Withings, a prominent provider of connected health devices. Fitbit has expanded its portfolio by acquiring the smart payment solution from Coin in May 2016 as well the competitor Pebble in December 2016 and Vector Watch in January 2017.