

**Sample/Excerpts ONLY – Not Full Report**

**Global Wearable Technologies: Devices,  
Applications, and Services Market 2016 – 2021**

April 2016



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## 1 EXECUTIVE SUMMARY

Wearable technology is a relatively new area for computing, representing distributed, personal computing, typically packaged in an aesthetic manner, and used for special purpose computing. Wearable categories include security/safety, sports/fitness, health/wellness, industrial/enterprise, and general lifestyle computing.

Included in the category of wearable devices are fitness wristbands, smartwatches, clothing, jewelry, wearable cameras, headsets, medical devices, glasses, and more. For the mass audience, wearables are devices or accessories worn by a person to track and process movement and store information.

These devices are connected, often to smartphones and/or computers, either through cellular, Wi-Fi, Bluetooth or other technologies. Popular (more consumer) wearable devices in the health/fitness market include the FitBit, Apple Watch and Samsung Gear. Other wearables include Google Glass and Microsoft HoloLens.

Wearable Tech also refers to technologies that are used on various parts of the body, which includes many form factors and purposes, ranging from fitness measurement sensors to accessories to fully autonomous intelligent wearable devices that connect directly to the Internet.

This research evaluates the current state of the wearable technology ecosystem including devices, applications, and industry segments. The report addresses wearables in consumer and business, key challenges, market players, and solutions. The report also provides an outlook for the future of wearable technology and forecasts for the period 2016 – 2021 for the following:

- Wearable Device Shipment in Million 2016 – 2021
- Global Wearable Technology Revenue 2016 – 2021
- Wearable Devices by Product Area 2016 - 2021
- Wearable Devices by Textile vs. Non-Textile 2016 - 2021
- Wearable Device Shipments by App and Industry 2016 - 2021
- Wearable Devices by NA EU APAC and RoW 2016 – 2021
- Wearable Device Shipments in Top Ten Countries 2016 – 2021
- Smart Watch Shipment by Operation System 2016 – 2021
- Wearable App vs. Hardware Revenue 2016 – 2021
- Wearable Technology Product Revenue 2016 – 2021
- Wearable Technology Revenue by Textile vs. Non-Textile 2016 – 2021
- Wearable Technology Revenue by App and Industry 2016 – 2021
- Wearable Technology Revenue by NA EU APAC and RoW 2016 – 2021
- Wearable Technology Revenue by Top Ten Countries 2016 – 2021

## 2 WEARABLE TECHNOLOGY IN BUSINESS

Wearable technology is a relatively new area for computing, representing distributed, personal computing, typically packaged in an aesthetic manner, and used for special purpose computing. Wearables in this category include watches, glasses/goggles (e.g. Google Glass), arm bands, devices embedded in clothing and other specially designed objects that one can carry on the body (human or animal).

Many wearables with these industries were had limited use such as wrist calculators, event planners and calendars, etc. However, after many nations allowed new low frequency wavelengths for communication, a new era of wireless connectivity using Bluetooth and Wi-Fi has enhanced the use of wearables in new and improved user scenarios.

Many wearable devices are increasingly integrated into clothes (and other personal items) to make the wearable system as unobtrusive as possible. This will become increasingly important as wearables move beyond the “fashion statement” stage into a more mainstream arena with the realm of Personal IoT (PIoT).

Various sensors, such as biomechanical, motion sensors, and others will need to be placed at specific parts of the body to communicate better with the whole system and provide accurate results. The key factor in any given wearable system is to implement a robust, cheap microsystem enabling the combination of all the above functionalities in a single device.

### 2.1 Leading Consumer Industry Verticals for Wearable Tech

Sports, Fitness, Healthcare, and Clothing are emerging as key industries for the early market success of wearable technology. Wearables are growing at a healthy pace worldwide and Mind Commerce sees huge potential in sports and fitness, healthcare and clothing. These industries have well-established players such as Adidas, Nike, Abbot, and Epson as well as a plentiful number of startups developing wearables, bringing competition and associated innovation to the market.

Mind Commerce sees wearables in...

[\[ See Full Report for More Information \]](#)

### 2.2 Internet of Things (IoT) and Wearables

The Internet of Things (IoT), where regular items like refrigerators or washing machines have enough intelligence to talk to each other, is another hot trend. To date there have been very little wearables connecting with IoT. However, we expect that to change in

the next few years as wearable tech becomes more prominent and also due to the need for end-user control of IoT.

At its core, IoT is all about Consumer and Commercial Automation and Data Analytics. If IoT is to become tremendously useful, it must have an easy, intuitive administrative system. There must be some form of easy provisioning and administrative control regarding Discoverability, Privacy, and Risk. This can take the form of an IoT Dashboard, or perhaps more appropriate names, a “**Consumer or Commercial Automation and Data Analytics Dashboard**”. See below figure for a snapshot of this concept:

	Connect From	Device ID	IP Address	IP Type	Device Type	Location
8:23	Laptop	00-1D-60-2F-4B-39	156.74.181.208	IPv4 NAT	Gateway	47.6097° N, 122.3331° W
9:12	Laptop	00-80-C8-E3-4C-BD	74.60.14.0	IPv4 NAT	Gateway	47.6097° N, 122.3331° W
10:24	Office Gateway	8C-D5-7D-D0-15-0E		IPv4 NAT	Gateway	47°36'36.6"N 122°19'37.9"W
10:39	Mobile Phone	E8-FA-0C-7F-93-4B		IPv6	Sensor	47°36'42.9"N 122°19'37.0"W
11:02	Office Gateway	8C-D5-7D-D0-15-0E		IPv4 NAT	Gateway	47°36'36.6"N 122°19'37.9"W
12:34	Mobile Phone	64-DA-1A-34-0D-4A	54.240.196.185	IPv6	Sensor	47°36'31.2"N 122°19'41.9"W
1:12	Mobile Phone	D4-F4-D7-DE-8A-BA	54.146.151.194	IPv4 NAT	Gateway	47°36'32.4"N 122°19'35.6"W
1:34	Mobile Phone	D4-F4-D7-DE-8A-BA	152.157.47.199	IPv4 NAT	Gateway	47°36'32.4"N 122°19'35.6"W
2:16	Wearable	00-16-68-2B-40-90	73.19.56.3	IPv6	Unknown	47°36'30.2"N 122°19'38.1"W
2:17	Wearable	00-16-68-2B-40-90	73.19.56.3	IPv6	Unknown	47°36'30.2"N 122°19'38.1"W
2:18	Wearable	00-16-68-2B-40-90	73.19.56.3	IPv6	Unknown	47°36'30.2"N 122°19'38.1"W
2:19	Wearable	00-16-68-2B-40-90	73.19.56.3	IPv6	Unknown	47°36'30.2"N 122°19'38.1"W



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**Unknown Device**

Figure 1: IoT Dashboard and Wearable Technology

In the above figure, we see a Dashboard indicating which personal devices (smartphone, laptop, wearable, etc.) have had connection attempts with an IoT device (gateway, sensor, etc.). In the above example, an end-user’s wearable device had an unknown device attempt to...

[\[ See Full Report for More Information \]](#)

### Ambient IoT Alerts via Smartphone and Smart Watch

### 3 GLOBAL WEARABLE TECHNOLOGY FORECASTS 2016 – 2021

	Percent of Total		Number of Devices in Million						CAGR
	2016	2021	2016	2017	2018	2019	2020	2021	
SmartWatch	X	X	X	X	X	X	X	X	X
WristBand	X	X	X	X	X	X	X	X	X
Clothing	X	X	X	X	X	X	X	X	X
Eyewear	X	X	X	X	X	X	X	X	X
Modular	X	X	X	X	X	X	X	X	X
Earwear	X	X	X	X	X	X	X	X	X
Other	X	X	X	X	X	X	X	X	X

**Table 1: Wearable Devices by Product Area 2016 - 2021**

[ See Full Report for All Data and Forecasts ]