



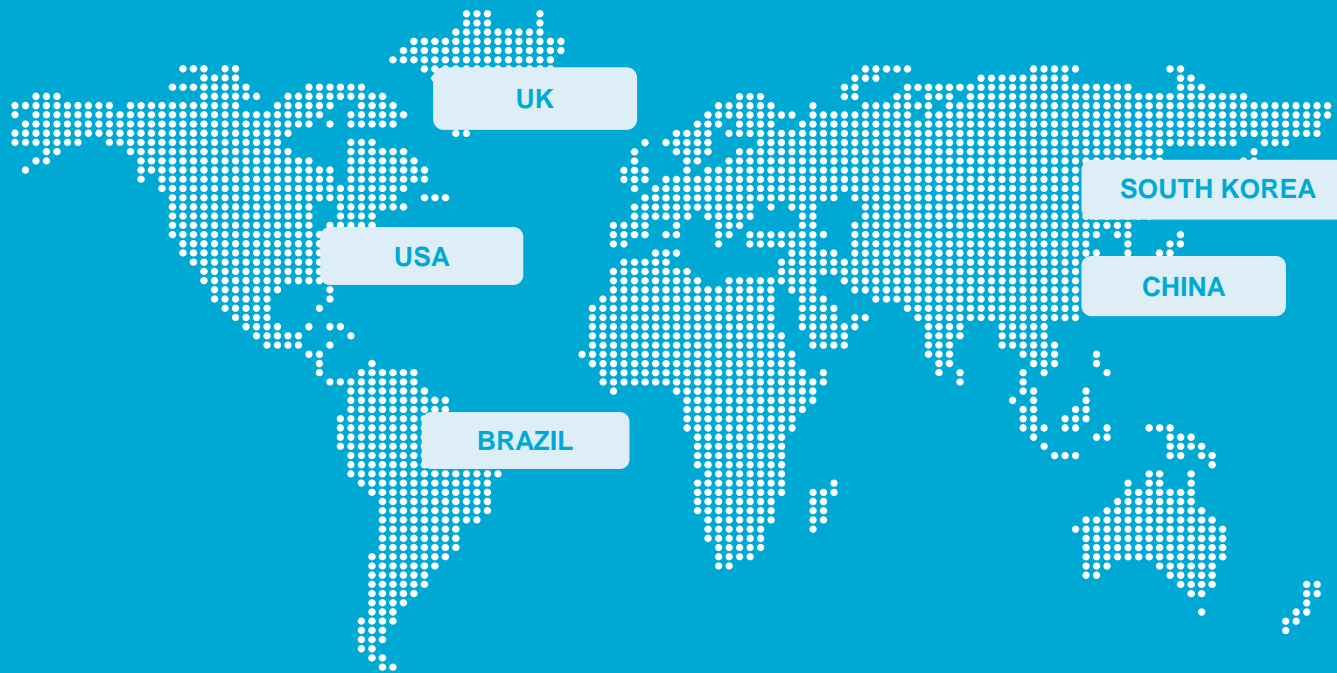
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CONSUMERLAB

WEARABLE TECHNOLOGY AND INTERNET OF THINGS

Consumer view on future wearables beyond health & wellness

METHODOLOGY



10

Interviews with wearable experts & industry watchers to identify emerging wearable categories



5

Markets chosen for the quantitative online study in the age group 15-65 years



5000

Smartphone users



2500

Wearable users

280

Million represented

Representative of opinion of 280 million smartphone users across 5 markets.

WEARABLE USER COMPOSITION IS EVOLVING



Wearable ownership almost doubled in the past year across the markets surveyed

14%
(2015)



30%
(2016)

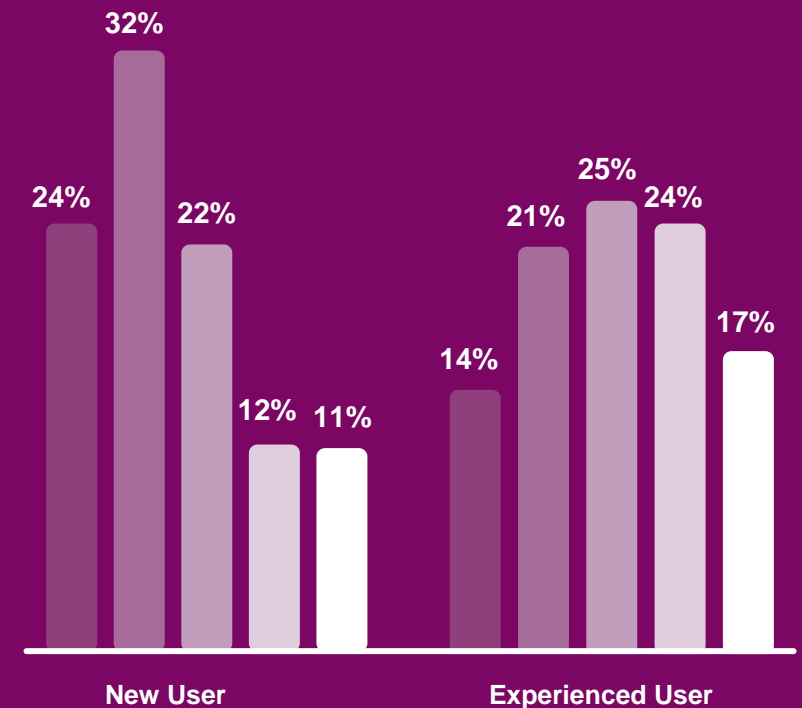


24 percent users of wearables who bought wearables in the past 3 months are aged 15–24



43% of new users are those who don't exercise or workout!

EXPERIENCED AND NEW USERS OF WEARABLES BY AGE GROUP



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Smartphone users owning wearables, Brazil, China, Korea, UK, US

WEARABLES AS INTIMATE AS SMARTPHONES



2/5

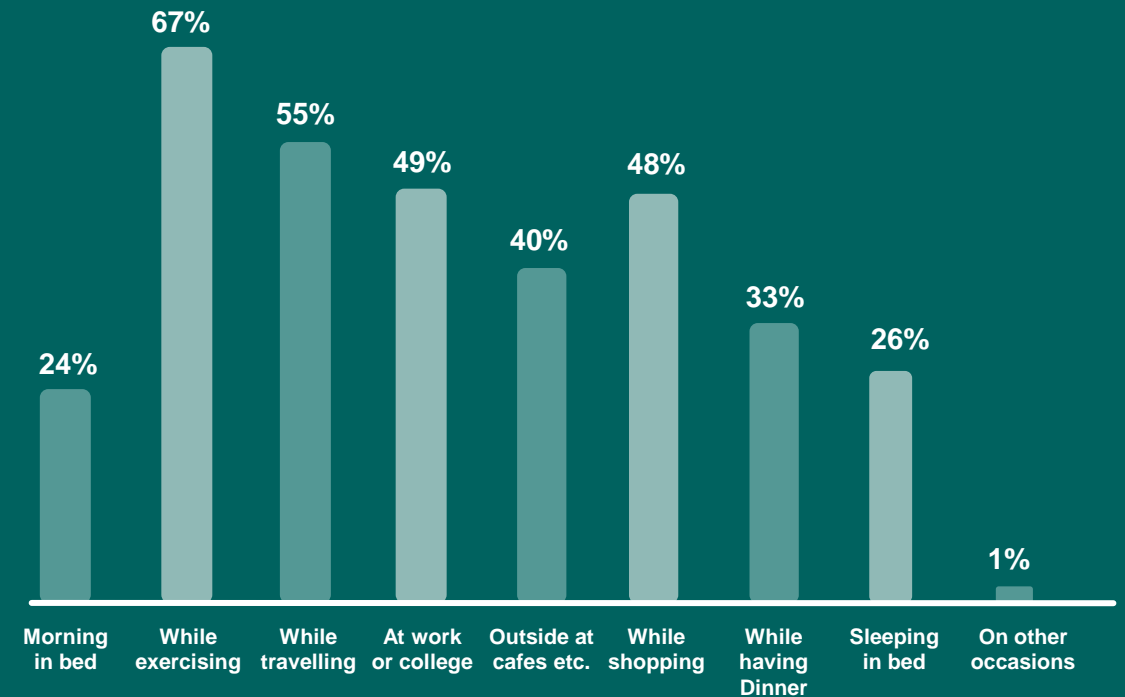
Wearable users say they feel naked when not wearing them

1/4

Users even sleep with them



OCCASIONS WHEN WEARABLE DEVICES ARE WORN ACROSS THE DAY



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Smartphone users using smartwatches or fitness bands

RISING EXPECTATIONS



A third of owners still abandon these devices but now in just mere couple of weeks



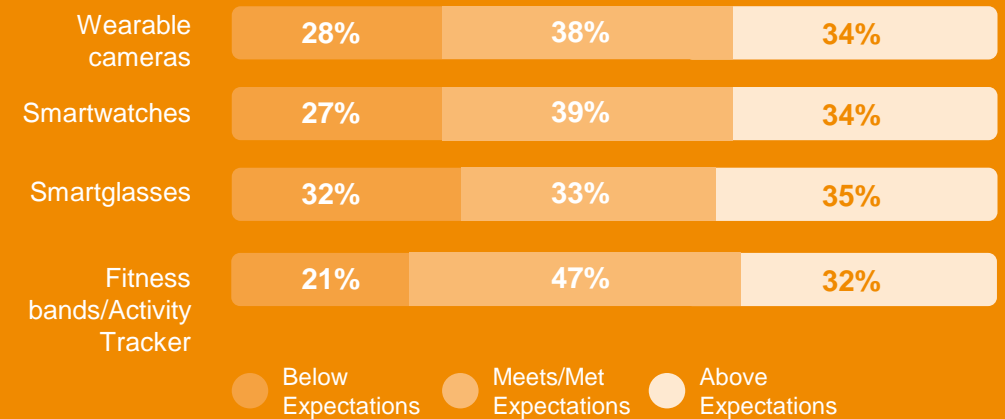
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Owners of First generation wearables have been left disappointed

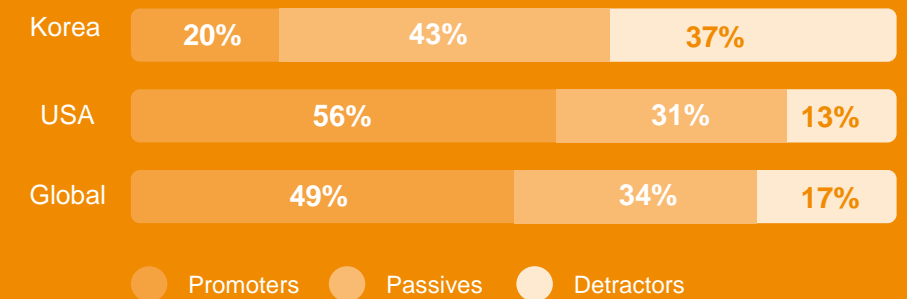
1/2

Of wearable users in US will recommend others to buy wearables whereas this drops to just 1/4 in Korea.

HAVE EXPECTATIONS BEEN MET?



WILL YOU RECOMMEND WEARABLES TO OTHERS?



REASONS FOR DISENCHANTMENT

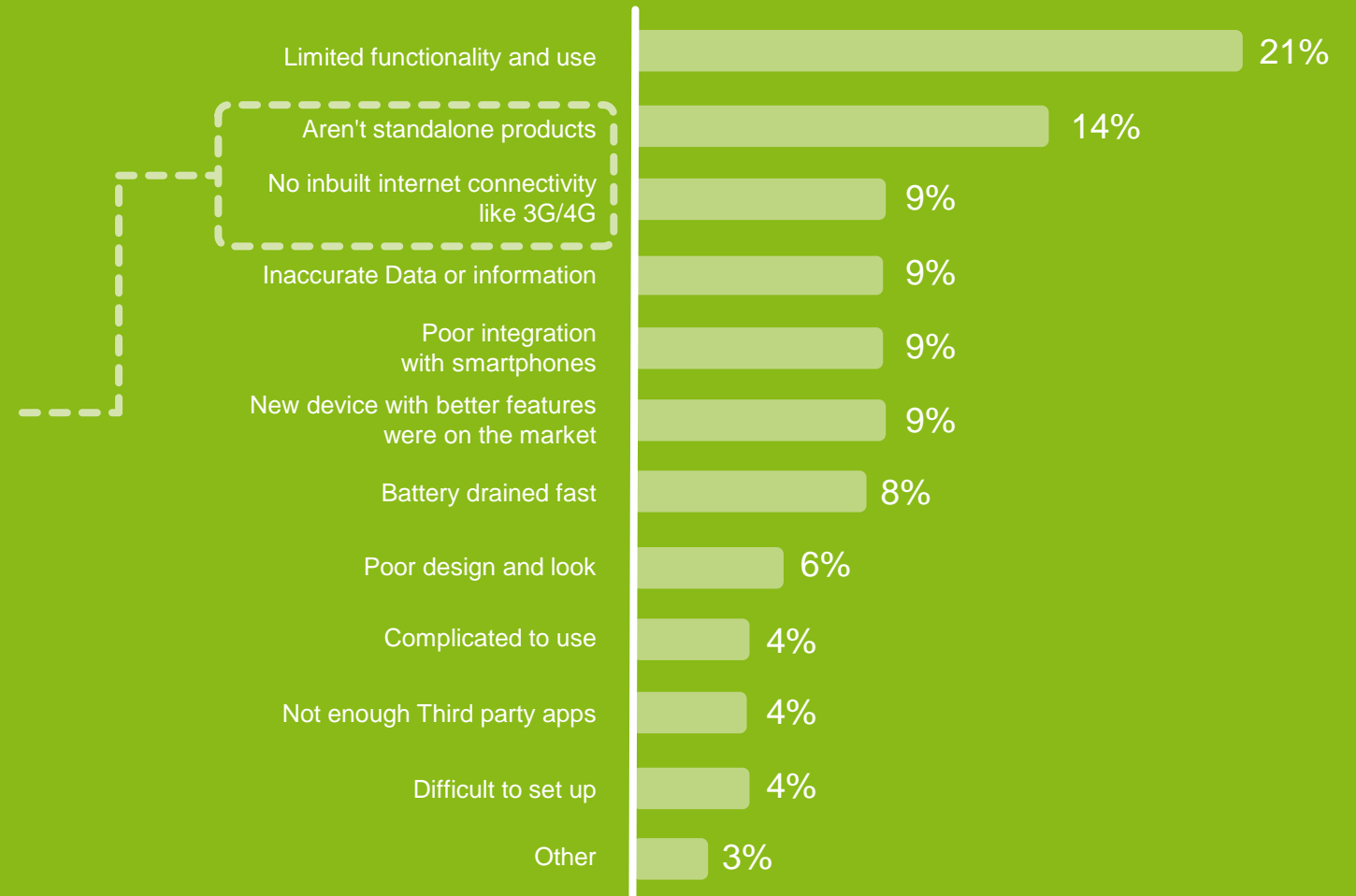


Wearables are still tethered to the smartphone via Bluetooth and follow a walled garden approach



23% abandoned wearables because of lack of standalone connectivity

REASONS FOR ABANDONING WEARABLES



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Smartphone users who abandoned wearable devices

WEARABLE FIRMS TRUSTED WITH PERSONAL DATA



1/2

Half of wearable users share data from wearables online, 60% feel in control of data they are sharing and who has access to it

67%

are open to sharing data with third party entities provided its anonymous



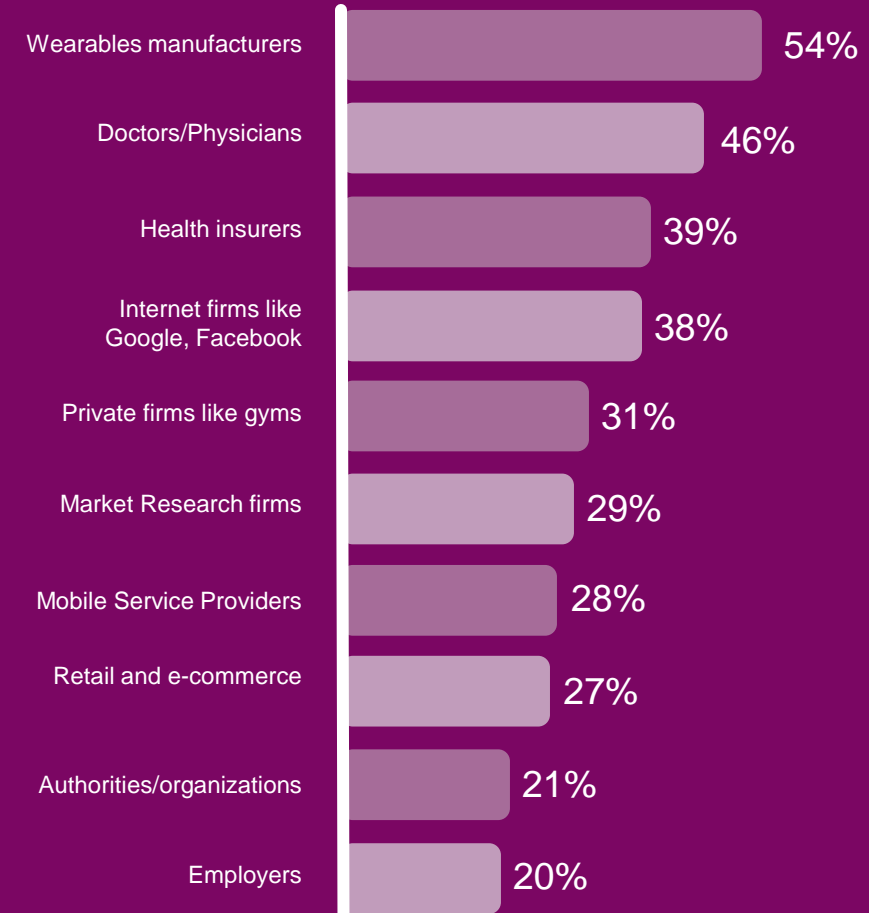
70%

of wearable users perceive wearable manufacturers to be very serious in protecting their wearable data

2X

Wearable users are more likely to share their data with wearable manufacturers rather than service providers or retail firms

ORGANIZATIONS AND ENTITIES CONSUMERS ARE WILLING TO SHARE WEARABLES DATA WITH



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Existing wearable owners across Brazil, China, South Korea, UK, US



WEARABLES BEYOND HEALTH AND WELLNESS

SOME WEARABLE IDEAS TESTED



SAFETY & SECURITY

SMART LOCATOR

A GPS tracker designed to blend in clothing or an accessory which helps you know the whereabouts of children or elderly parents

PANIC BUTTON

When in distress or trouble, a device that is built into any jewelry or clothing, and lets you quickly reach someone.

SAFE DRIVING INTERNABLE

An ingestible pill that measures blood-alcohol content. The pill communicates with your car, rendering it useless if you attempt to drive.

IDENTITY AUTHENTICATOR

A wearable device which identifies you automatically without pulling anything out in situations. Eg: unlocking cars, in security systems & shopping

SAFETY CLIP ON CAMERA

Wearable clip-on camera that automatically snaps 2 pictures a minute throughout the day, to gather evidence in case you encounter anything negative



SMART GARMENTS & ACCESSORIES

LOW WASH SMART GARMENT

A garment that notifies or alerts you when it is the right time to wash. Helping you save water & multiple washes

VIRTUAL REALITY SPORTS ATTIRE

Allows sports fans to feel & experience what players see & feel during games, using real-time sports data

EXACT MEASUREMENT

Garments with built-in sensors taking thousands of body measurements to provide exact measurements to an app

FAST FASHION

Garments that are blank on purchase but can be customized to any colour & pattern using your designs done on a mobile app

FILTER NOTIFICATION BRACELET

An armband or ring that vibrates to alert you to calls, messages Through an app, users can predefine which notifications get passed

SMART WATER PURIFIER

A wearable water purification bracelet device which contains a UV purifying light bulb that kills contaminants & bacteria in minutes.

THERMAL BRACELET

A bracelet changes the body's internal temperature by producing cooling or heating sensations on the wrist which affects the whole body.



NON VERBAL COMM.

EMBRACE

A GPS tracker designed to blend in clothing or an accessory which helps you know the whereabouts of children or elderly parents

GESTURE COMMUNICATOR

A device that lets you send and receive expressions and alerts with a simple gesture, the recipient will be able to sense the message through unique light, sound, and vibration patterns on his device

EMOTION SENSING TATOO/ MOOD DETECTOR

A skin-colored patch or tattoo-like sensor that tracks your mood throughout the day and recommends actions to take.

ALLERGY ALERT SCARF

A wearable device or a scarf that can sense objects around it and lights up alerting both the wearer and others of the allergic substance being in the vicinity

SAFE DRIVING INTERNABLE



An ingestible pill that has sensors which you can swallow that measures blood-alcohol content. Such a pill could then communicate with your car, rendering it useless if you attempt to drive it above the prescribed legal limits



Ingest pill with Sensor



Pill connects with car's system to check for alcohol limits



If alcohol above permissible level, car doesn't move

SMART GARMENTS WITH ARTIFICIAL INTELLIGENCE



EXACT MEASURE:

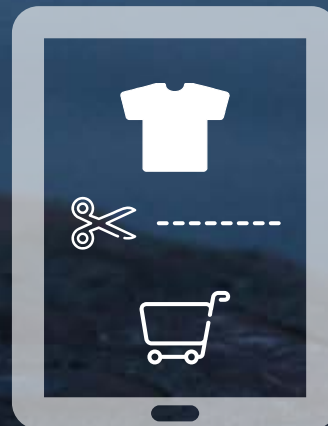
A garment that is equipped with built-in sensors that take thousands of measurements of your body which get sent via Bluetooth to an app, which matches up your exact measurements online to find the right fit among all the brands



Garment equipped with built-in sensors that take thousands of measurements of your body

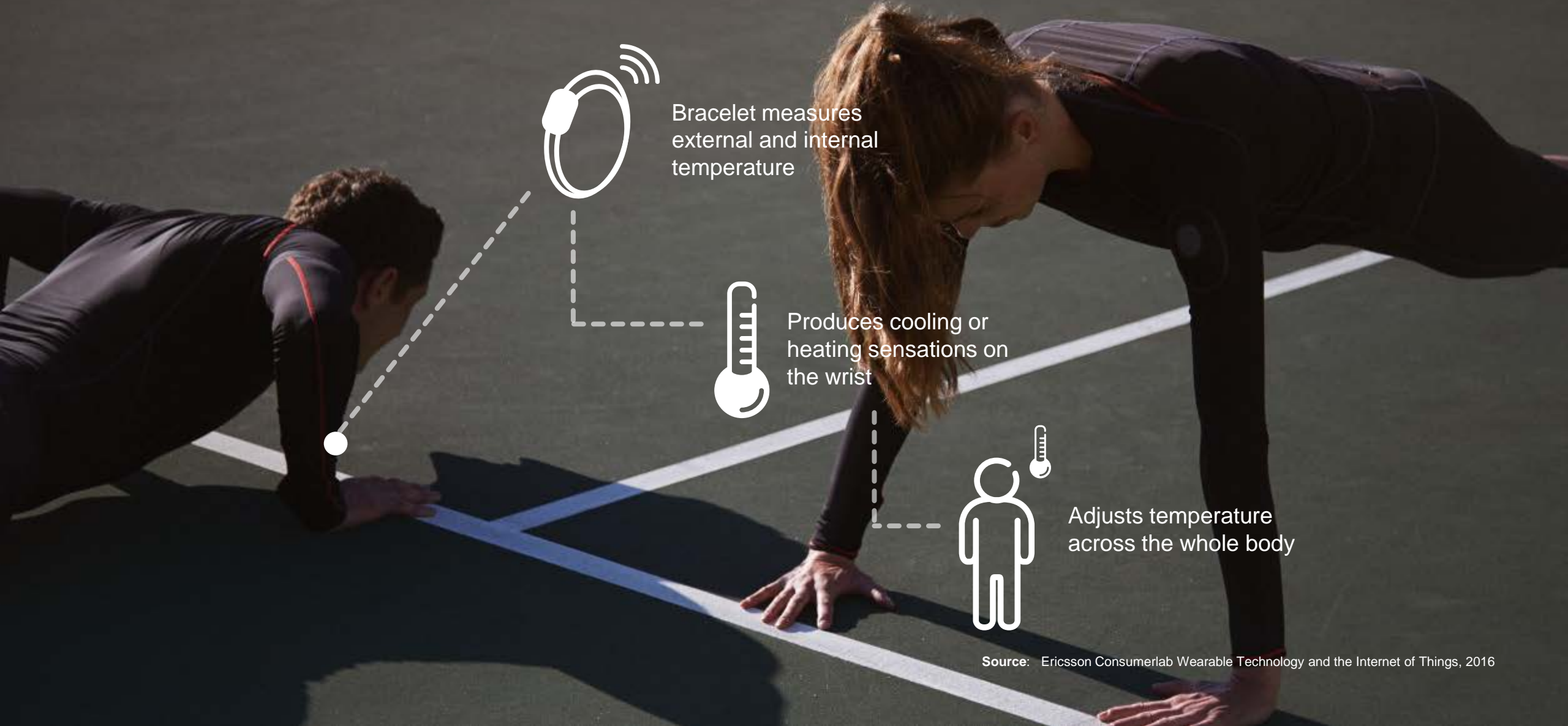


The measurements of your body are sent via Bluetooth to an app



The app matches the exact measurements online to find the right fit among all the brands

PERSONAL TEMPERATURE CONTROL THERMAL BRACELET



Bracelet measures external and internal temperature



Produces cooling or heating sensations on the wrist



Adjusts temperature across the whole body

CONNECTED TOGETHERNESS

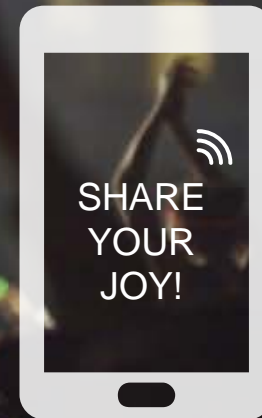
From transferring touch wirelessly to sharing emotions



A skin-coloured patch or tattoo-like sensor, that tracks your mood and emotions throughout the day and recommends you with actions like deep breathing while in stress or anxiety, you can also chose to share this data with others.



YOU
SEEM
HAPPY!

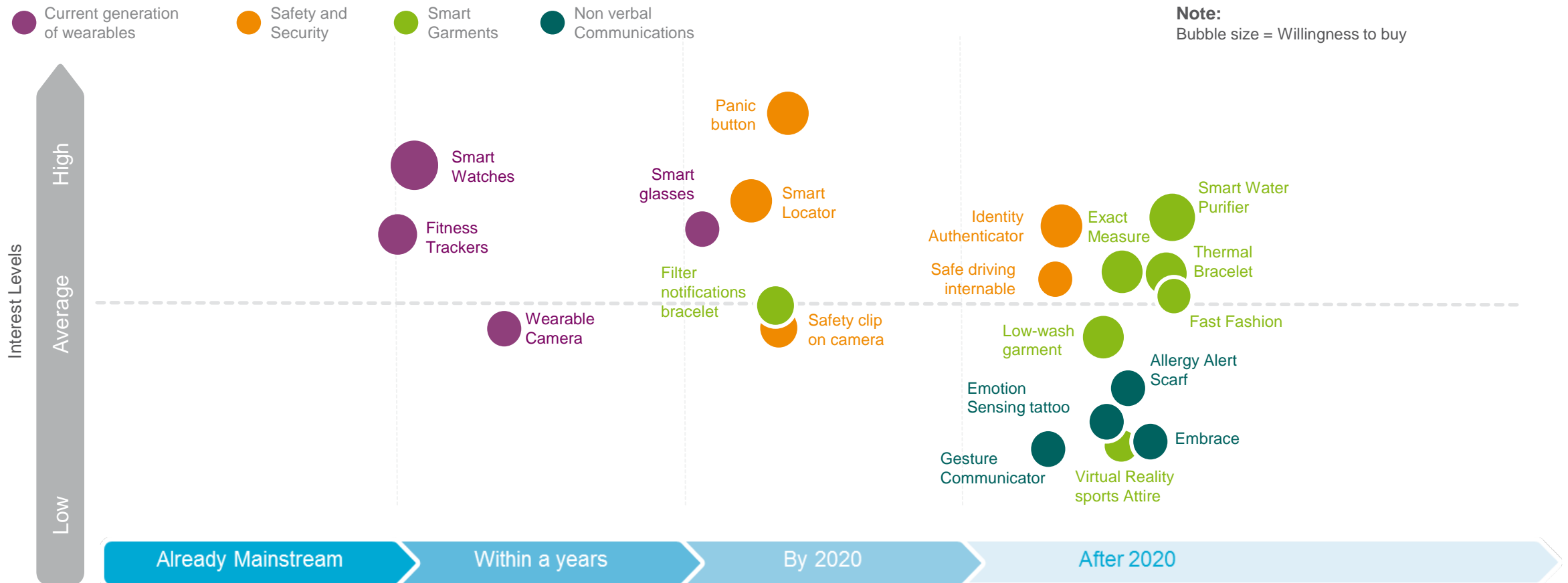




Do consumers think wearable tech's time has come?

What will they be wearing in next 4 years and beyond?

CONSUMERS PREDICT WEARABLE TECHNOLOGY INFLECTION POINT TO BE BEYOND 2020



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Smartphone users across Brazil, China, South Korea, UK, US

WHY PERSONAL SAFETY WEARABLES ARE MOST SOUGHT AFTER?



28%

of smartphone users surveyed have been victim of some crime in the past 12 months

17%

of smartphone users already use apps for personal safety and security.



On an average sense of safety drops by 20 percentage points among consumers from day to night.

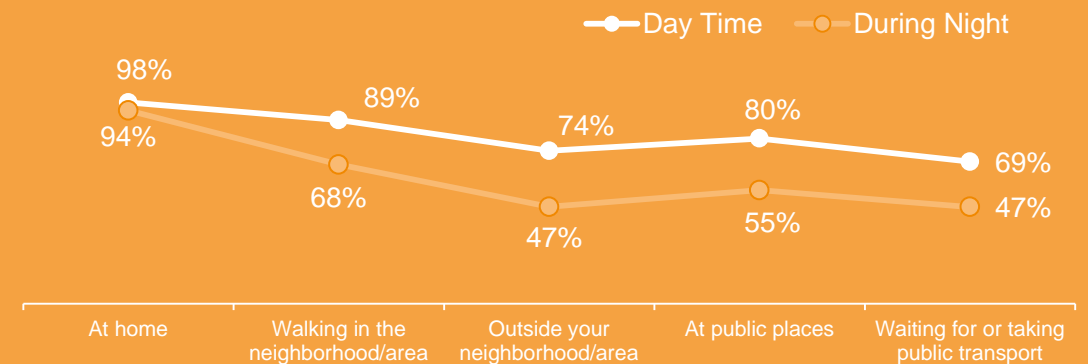


Just about half of users surveyed feel safe while taking or waiting for public transport at night with



60% women in US, UK and South Korea say they feel unsafe in such situations.

HOW SAFE DO YOU FEEL DURING...



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Smartphone users across Brazil, China, South Korea, UK, US

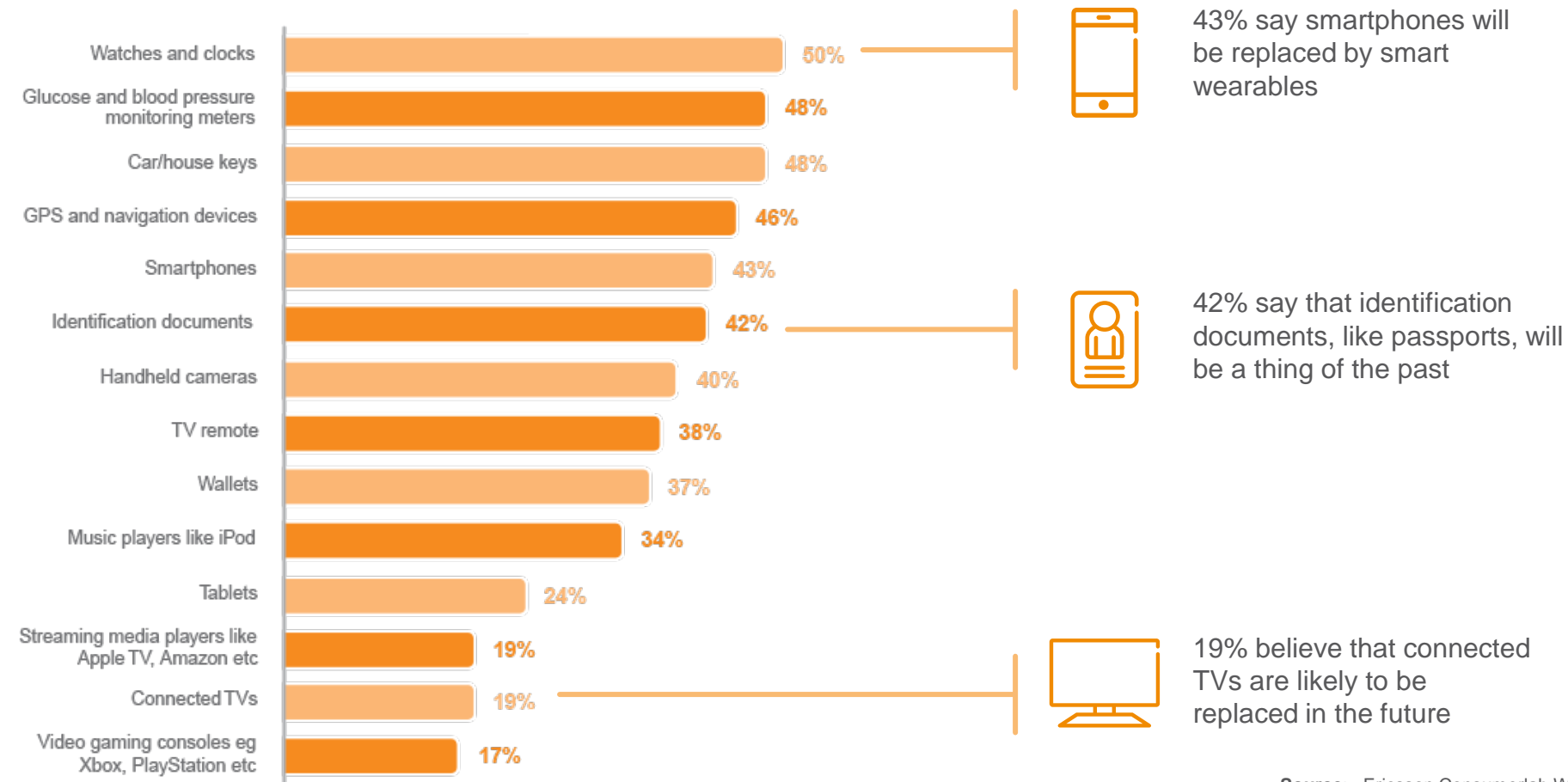
THE ROLE OF SMARTPHONE IN A WEARABLE FUTURE



OUTSMARTING THE SMARTPHONE



GADGETS/ITEMS THAT WEARABLES ARE LIKELY TO REPLACE IN FUTURE



Source: Ericsson Consumerlab Wearable Technology and the Internet of Things, 2016
Base: Smartphone users across Brazil, China, South Korea, UK, US

A BODY OF SENSORS



74%

See that wearables will act as conduit for exchanging data between them and other physical objects and things

These may not necessarily be devices but sensors that are ingestible or implants that help interact with objects and devices

25%

Already today 25 percent of smartwatch owners use their smartwatch to remotely control digital devices at home

6/10

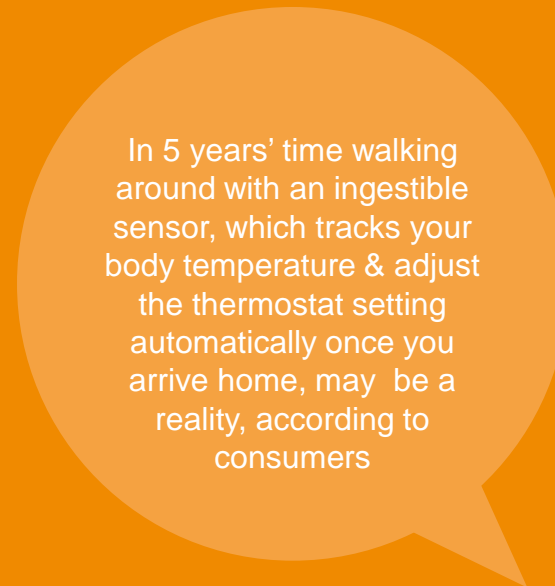
Smartphone users believe that ingestible pills & chips under the skin will be used to interact with objects within 5 years



Implanted chip for unlocking car doors



Implanted chip for retail buying transactions



In 5 years' time walking around with an ingestible sensor, which tracks your body temperature & adjust the thermostat setting automatically once you arrive home, may be a reality, according to consumers



Implanted chip for auto adjusting temperatures

INTERNET OF WEARABLE THINGS IN FUTURE



With consumers predicting they will wear at least 5 connected wearables beyond 2020...



The future looks connected



But a delay in wearable adoption will delay the development of a consumer IoT future

IN SUMMARY



WEARABLES BECOME THE MOST PERSONAL DEVICES

- › Two in five users of wearables say they feel naked when not wearing their device, with one in four even sleeping with it on
- › Despite this, a quarter of those who have bought wearables in the past three months say their expectations have not been met

CONSUMERS PREDICT THE WEARABLES INFLECTION POINT TO BE BEYOND 2020

- › 6 out of 10 smartphone users are confident that wearables will have uses beyond health and wellness
- › Consumers predict that most wearable ideas will only become mainstream beyond 2020. However, current users of wearables believe the development will be much faster

WEARABLES MANUFACTURERS AS PERSONAL DATA BROKERS

- › 70 percent of users of wearables perceive wearables manufacturers to be very serious in protecting their data. In fact, users of wearables are more likely to share their data with wearables manufacturers than with doctors, insurance companies and internet companies

A NEW ROLE FOR SMARTPHONES IN THE WEARABLES FUTURE

- › 43 percent of those surveyed believe smartphones will be replaced by wearables, while 40 percent of smartwatch users already interact less with smartphones today. As wearables get smarter, the smartphone may become a secondary screen

INTERNET OF THINGS FUTURE SHAPED BY WEARABLES

- › 74 percent believe multiple wearables and sensors will help them interact with other devices and physical things around them, whilst 1 in 3 smartphone users believe they will wear at least 5 wearables beyond 2020. Thus, a setback in wearables adoption might delay the overall adoption of the IoT among consumers



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