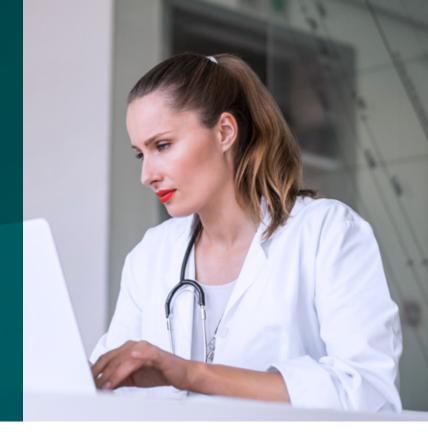# SONY

Remote monitoring technology facilitates clinical trials

Increase efficiency, reduce complexity

Conducting clinical trials is complex and time-consuming and does not always deliver the return on investment pharmaceuticals companies want. Remote monitoring with connected wearables points the way forward. But, to leverage its full potential, you need more than just a wearable. You need a complete solution that can receive and send data securely and automatically, with a reliable connection between the device and back-end. It must enable direct communication with researchers and be straightforward for the end user. Sony's mSafety fulfils all these criteria.

Optimise your studies with mSafety

mSafety's uniqueness lies in the fact that it is not a turnkey solution but a platform - consisting of a connected wearable device and secure back-end solution - upon which pharmaceuticals companies or CROs can create their own customised applications based on specific trial protocols.

The wearable features built-in sensors to monitor physical activity, heart rate, body effort and sleep patterns, as well as GPS for location information. It can be connected to up to five external sensors via NFC or BLE. Uploading data automatically at a pre-set frequency, researchers remain up-to-date with participant's values. A global roaming profile ensures the wearable is continuously connected without the need for pairing it with a phone.

Bi-directional communication capabilities mean trial supervisors can contact their participants, set up reminders and establish a reliable flow of feedback.

Why mSafety?

Benefits for trial managers

- Customized trial applications
- Continuous, automatic data flow
- Better quality data, faster insights
- Frees up resources for other trials
- Improves patient compliance
- End-to-end data encryption
- Ownership of data

Benefits for trials participants

- Easy-to-use device
- No pairing with phone or special account
- Long battery life
- Works indoors and out
- Enhances safety
- Reduces need for physical meetings

External sensors   mSafety wearable   mSafety IoT solution   Service provider platform

mSafety

Minimum intrusion, maximum convenience

As a service provider, you create your own customized applications for the wearable device, taking advantage of the communication functionality Sony provides. End-to-End encryption of customer data is supported in the mSafety solution. This means that no customer's application data, e.g. health data, is visible in the mSafety back-end. And the device fulfils requirements for medical hardware manufacturing according to ISO 13485 and QSR820. Please note, partners are responsible for acquiring medical certification if it's needed.

mSafety is simpler and more convenient for end users than most consumer wearables. Sony ships the wearable to you with the application pre-loaded and it connects automatically to the cloud, so all participants have to do is wear it!

Sony wearable dataset

eUICC	LTE Cat-M connectivity, ready-to-use with global roaming profile (embedded Universal Integrated Circuit Card)
Size	53,2 x 45,0 x 12,75 mm
Weight	about 30g
Battery life	Approx. 5 days in typical patient monitoring application (depending on usage and network conditions)
Water Resistant	IP68
User Interface	1.4 inch 160x160 pixel Monochrome OLED with touch + 3 HW keys
Built-In sensors	Accelerometer, GPS, Gyro, Heart Rate
Algorithms	Heart Rate Variability, VO2 max, Calories, Footsteps, Position, Sleep
Built-In vibrator	For notifications
Buzzer sound pressure	>79dB
Durability	Sony Global Quality standards for wearables in rough usage (i.a. drop, shock, vibration, thermal shock, extreme temperatures)
Cellular direct Cloud connection	LTE Cat-M1, rel13 Europe (B3, B8, B20, B28), Japan (B1, B8, B26) , US (B4, B12, B13, B14)
Connectivity	Bluetooth Low Energy, GPS, LTE, NFC
GNSS	GLONASS/QZSS, GPS
Sensors connection	Medical and non medical partner network

mSafety from Sony is a secure, reliable communications platform for mHealth providers and safety services. It combines a convenient wearable device with a solid back-end solution that enables interaction between the wearable and Cloud back-end servers. Large device fleets are easy to manage thanks to over-the-air software updates and visibility of key data via dashboards. mSafety offers healthcare and safety organisations an overview of end user data – generating insights that help improve services and bring more benefits to the end user.
https://sonynetworkcom.com/msafety/

mSafety