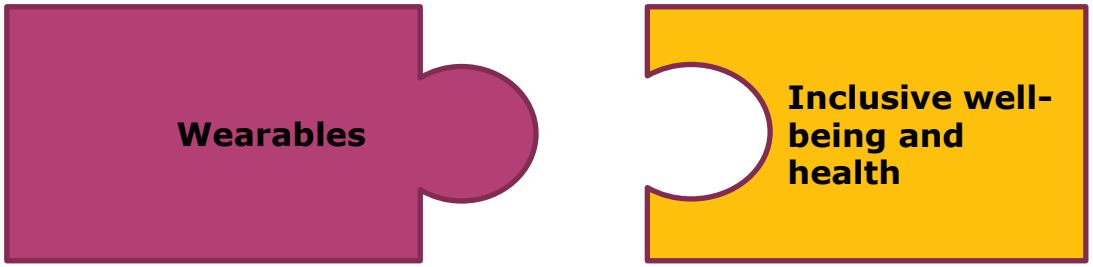
Recommendation 11:



Using 'Wearables' to meet the societal need 'Inclusive well-being and health'

Status quo:

Examples of applications/products include Apple iOS 8 HealthKit, Live!y, BodyGuardian, Alarm.com, ActiveProtective, VitalConnect Band, Medical Wearable Solutions Eyeforcer, oRoti Labs Limited W/Me2, Cardio family of products, Biovotion AG monitoring platform.

Potential use cases involve any device or application that collects healthy aging data, mental data and social data and concern:

- Sensory integration (helping people see better or understand the world better)
- Health care monitoring systems

Recommended actions:

Technical challenges:

- Progressing with power consumption issues (equipping devices with longer battery duration);
- Advancing the design and the aesthetic aspects of wearable devices;
- Ensuring the quality of the devices' operation (eliminate heat and precipitation factors);
- Development of appropriate standards and standardized descriptions of the artefacts measured.

Non-technical challenges:

- *Safety performance*: establish binding rules, to cover safety and performance requirements of quasi-medical devices;
- *Data protection*: enable users to make privacy-friendly choices when using wearable devices;
- *Cyber security*: Adapt the legal framework to safeguard the privacy of end-users and their data-eliminate the risk of hacking and thus misusing wearable devices and the data they contain.

Links – text to be shown when clicking on the technology or the need:

Inclusive well-being and health:

The pursuit of well-bring, provision of a primary health care services, realignment between work, personal and community life and a stable work-life balance across all age groups and gender. Some instances of this need include providing basic health care services and personalized services for disabled and physically impaired, child care, maintaining the quality of life (work-life balance, cultural and free time), and reducing the stark economic and social isolation of elderly people*. 10 of our informants mentioned this as a priority need. Their comments and concerns embrace issues such as "more appropriate medical care", "improved access to primary health institutions", "social cohesion", and "lack of solidarity and rise of selflessness".*

Wearables:

Wearables (wearable computers and interfaces) are miniature electronic devices that are designed to be "worn" by humans, such as a wrist-mounted screen or head mounted display, to enable mobility and hands-free/eyes-free activities.*

*Wearable computers are especially useful for applications that require more complex computational support, such as accelerometers or gyroscopes, than just hardware coded logic. One common feature of wearable computers is their persistence of activity. There is constant interaction between the wearable and user, so there is no need to turn the device on or off. Another feature is the ability to multi-task. When using a wearable computer, there is no need to stop what one is doing to use the device; its functionality blends seamlessly into all other user actions. These devices can be used by the wearer to act as a prosthetic. It may therefore be an extension of the user's mind or body**.*

** Gartner IT Glossary – Wearable Computer, http://www.gartner.com/it-glossary/wearable-computer/*

*** Wikipedia - Wearable computer, https://en.wikipedia.org/wiki/Wearable_computer*