Assistive Technology Rapid Integration & Construction Set

AsTeRICS

SEVENTH FRAMEWORK PROGRAMME

Socio-economic Challenges

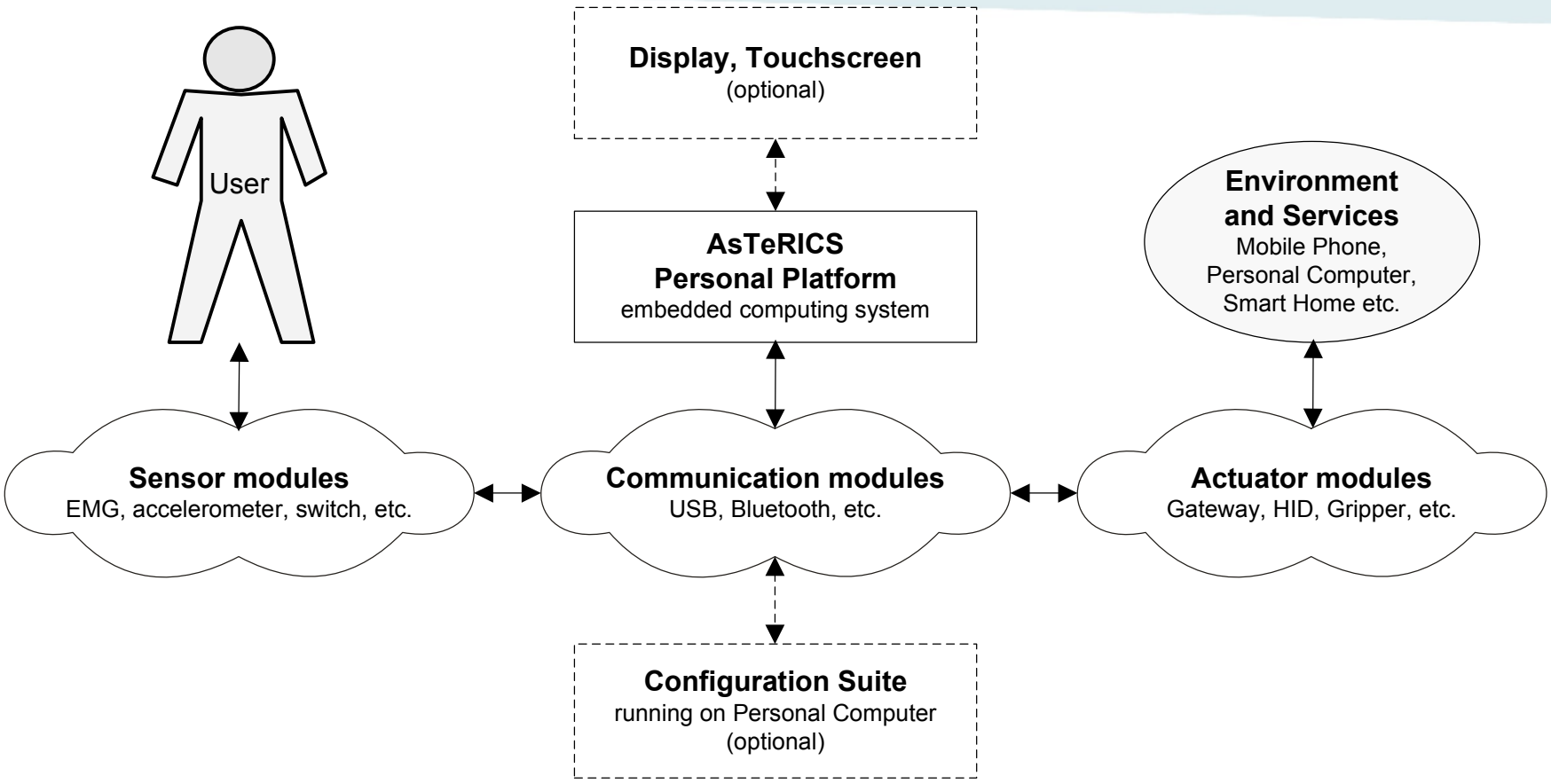
- **According to Eurostat 2005**
  - between 1,7% (Hungary) and 17,5% (Norway) of people with long-term disabilities have problems with their arms or hands, 2.6 million people across Europe, many of them need Assistive Technologies (AT)
- **Problems with AT**
  - often optimized for particular application and disability
- **Consequences**
  - some people with disabilities are not independent as they could be with individually tailored and affordable AT

Common Problems

- The best input method is often not supported by desired application
- Ways to reduce tremor or unintended movements are rare
- AT often does not adapt to learning or increasing skills of the user
- AT often does not adapt to new demands of the user
- Complex AT devices usually need professional setup
- Leading AT devices are expensive

AsTeRICS Goals

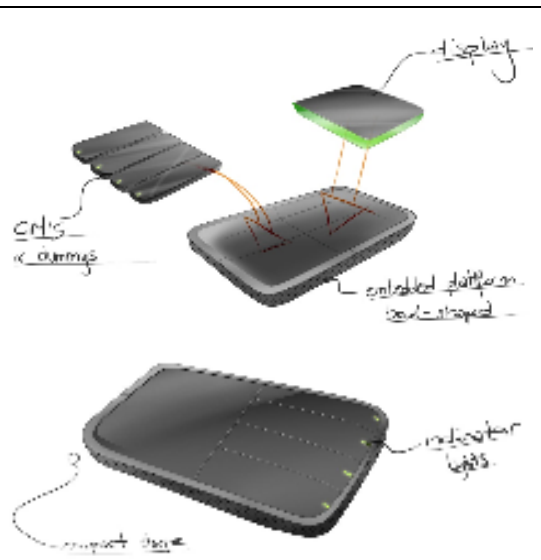
- Develop **flexible and affordable construction set** for user-driven Assistive Technologies
- Sensors and actuators can be connected via embedded computing platform
- Modular architecture for creating new AT applications
- A software suite offers an interface for graphical setup and configuration
- Explore capabilities of new devices, new combinations or extensions of traditional ones
- Novel sensors by AsTeRICS partners (Starlab Enobio with BCI capabilities, Smart Vision System)



AsTeRICS Vision

- Using the AsTeRICS system, people with severe motor disabilities can make use of their full potential. **Tailored AT-solutions** can be provided to users in several contexts of use
- The AsTeRICS core system is **open source**, giving many AT developers an option to integrate new devices
- The AsTeRICS system will be affordable for many people who cannot benefit from leading edge of supportive tools today

One of Design Studies



AsTeRICS Partners

- KI-I Linz, Austria
- FHTW – Technikum Wien, Austria
- University of Cyprus
- Université Pierre et Marie Curie Paris, France
- Institut mikroelentronických aplikací Praha, Czech Republic
- Starlab Barcelona SL, Spain
- Ingema Donostia-San Sebastian, Spain
- Sensory Software Ltd., United Kingdom
- Harpo Sp. z o. o. Poznań, Poland

European Commission
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