

AsTeRICS



Assistive Technology Rapid Integration and Construction Set

More than **2,6 million people in Europe** have **problems with their upper limbs** and therefore many of them depend on Assistive Technologies (AT). As the potential of the individual user is very specific, adaptive ICT-based solutions are needed to let this population group participate in modern society. Such solutions are rarely available on today's market.

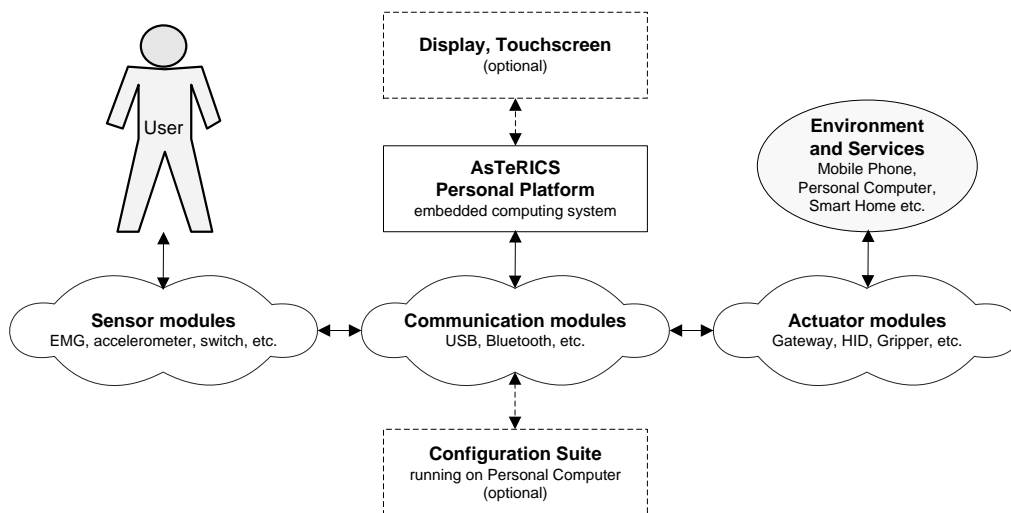
AsTeRICS will provide a **flexible and affordable construction set** for realising **user driven AT** by combining emerging sensor techniques like Brain-Computer Interfaces and computer vision with basic actuators. People with reduced motor capabilities will get a flexible and adaptable technology at hand which enables them to access the Human-Machine-Interfaces (HMI) of the standard desktop but in particular also of embedded systems like mobile phones or smart home devices.

AsTeRICS will implement a set of **building blocks for the realisation of AT**:

- **Sensors** which allow the individual to exploit any controllable body or mind activity for interacting with human machine interfaces (HMI).
- **Actuators** for interfacing to standard IT, to embedded systems and to interact with the environment
- An **Embedded Computing Platform** that can be configured to combine sensors and actuators to tailored AT-solutions which support the full potential of an individual user.

The core of the software suite will be provided as **Open Source**. The complete system will be affordable for many people who cannot benefit from leading edge supportive tools today.

The following figure outlines the concept of the AsTeRICS construction set, which consists of several modules and a software suite for configuration of the overall system:



AsTeRICS revolutionises the concept of AT: AT today mostly focuses on a certain task or situation. Due to the growing importance of the PC, AT has been oriented towards standard Human-Computer (HCI) or desktop interfaces. AsTeRICS respects the strong need for flexible, adaptable AT functionalities accompanying people with disabilities away from the desktop, enabling them to interact with a diverse and fast changing set of deeply embedded devices in our modern environment.

For more information please refer to www.asterics.eu

Participating Partners

| Organisation | Country |
|---|----------------|
| <i>Project coordinator :</i> Kompetenznetzwerk Informationstechnologie zur Förderung der Integration von Menschen mit Behinderungen (KI-I) | Austria |
| Fachhochschule Technikum Wien | Austria |
| University of Cyprus | Cyprus |
| Université Pierre et Marie Curie (Paris 6) | France |
| Starlab Barcelona SL | Spain |
| Harpo Sp. z o.o. | Poland |
| Sensory Software Ltd | United Kingdom |
| Fundacion Instituto Gerontologico Matia – INGEMA | Spain |
| Institut Mikroelektronických Aplikací s.r.o. | Czech Republic |

Project Profile

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|-----------------------------|---|
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