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# Fraunhofer Alliance „Ambient Assisted Living“

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- Berlin, 01. February 2008

# Technologies needed for the Aml vision



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# Technologies needed for the Aml vision



Smart Materials, Sensors, intelligent clothes, ubiquitous and pervasive

# Technologies needed for the Aml vision

Embedded devices,  
context and situation aware



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Embedded devices,  
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Devices with internal  
intelligence,  
person and preference  
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# Technologies needed for the Aml vision

Embedded devices,  
context and situation aware

Integrated Interaction with  
devices, intuitive and simple



Devices with internal  
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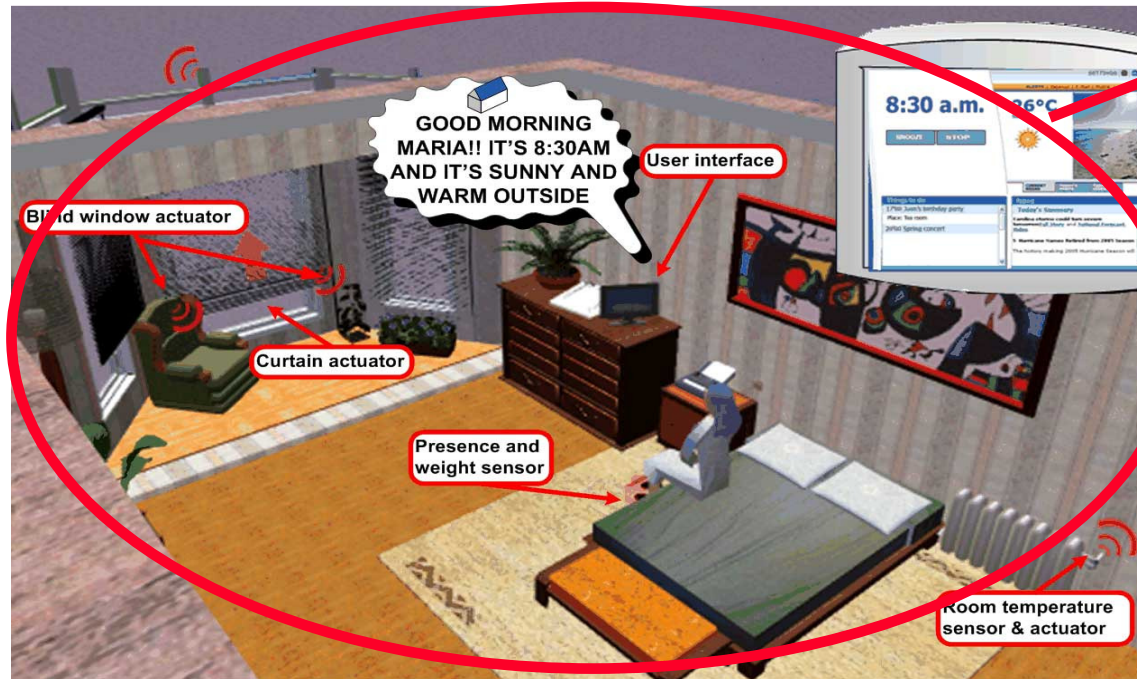
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# Technologies needed for the Aml vision

Embedded devices,  
context and situation aware

Integrated Interaction with  
devices, intuitive and simple

Intelligent Middleware and  
Software Architectures,  
Dynamics and self-organization



Devices with internal  
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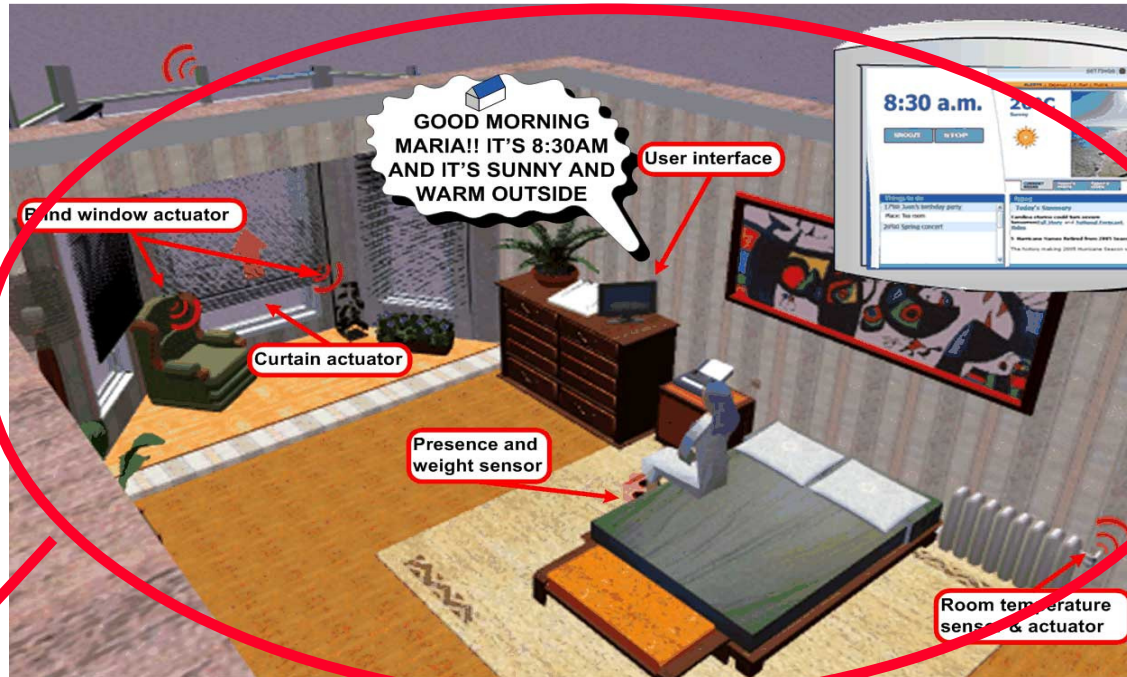
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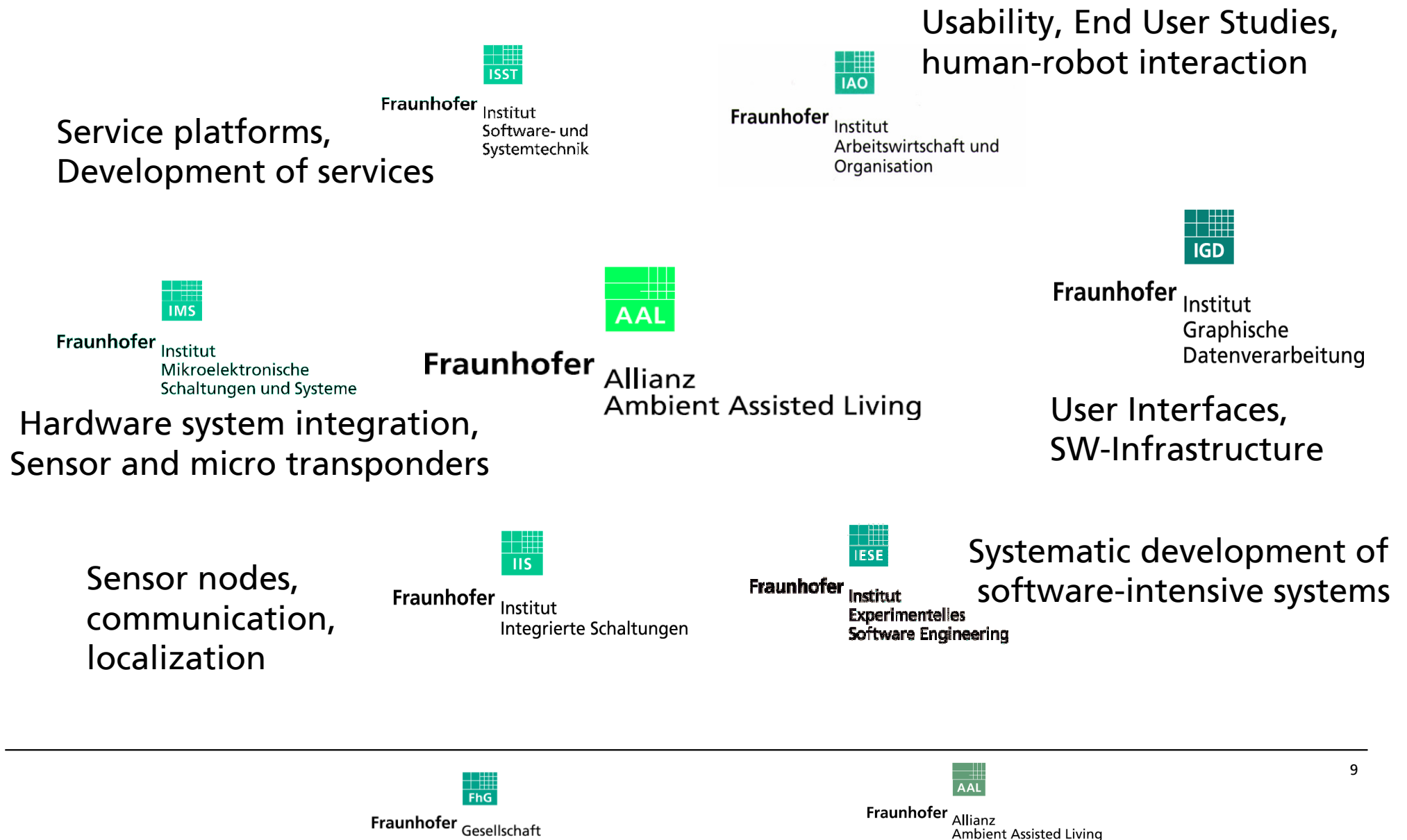
Devices with internal  
intelligence,  
person and preference  
aware

New Experiences in assistive  
environments

Smart Materials, Sensors, intelligent clothes,  
ubiquitous and pervasive

# Fraunhofer Alliance „Ambient Assisted Living“ – Member Institutes

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# Vision

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[www.embassi.de](http://www.embassi.de)

# Aml Research Challenges

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**1) Middleware for self-organizing heterogeneous distributed device ensembles:**

Middleware Challenges: Extensibility, Service Discovery, Cooperation  
Service Composition, Conflict Resolution, Communication

**2) Interaction and Monitoring Technologies:**

How to interact with distributed devices ?  
What are appropriate interaction technologies ?

# Project Idea

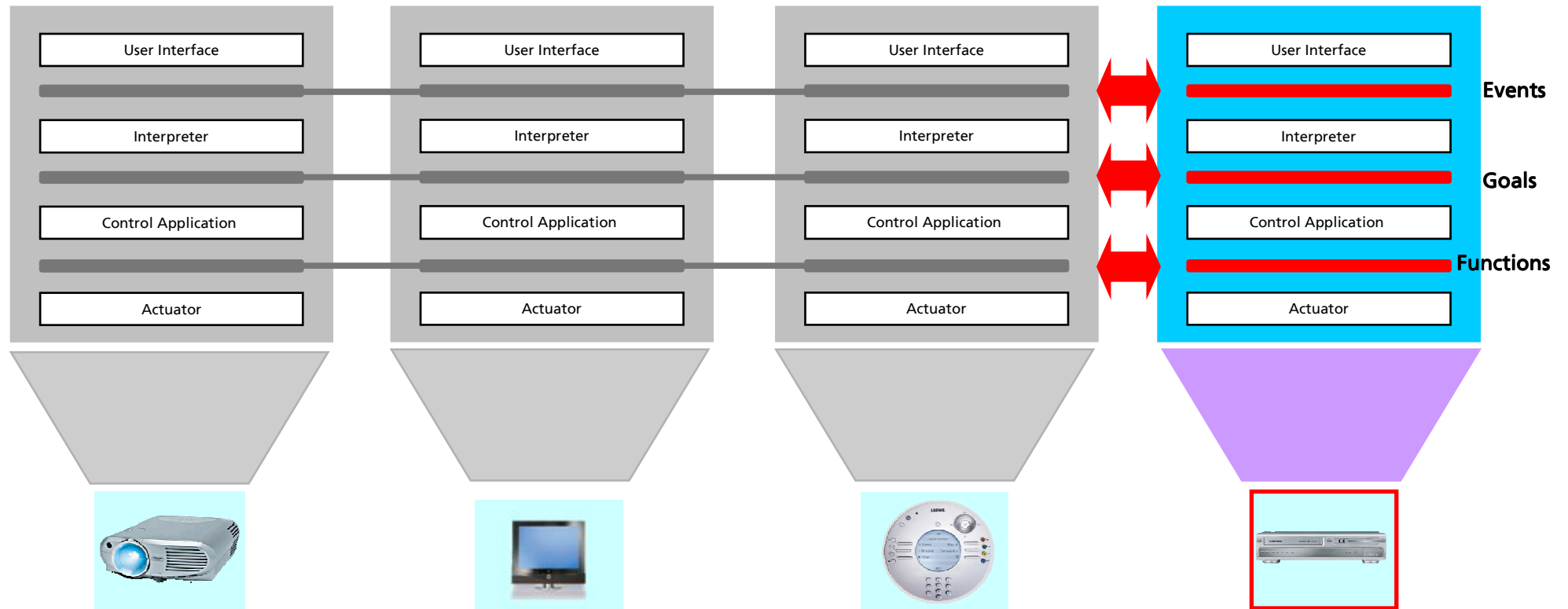
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- Inside Alliance AAL a lot of Prototypes
- → bringing them to the market → products
- A well proved prototype of a distributed ad-hoc Infrastructure
  - plug in new devices at any time

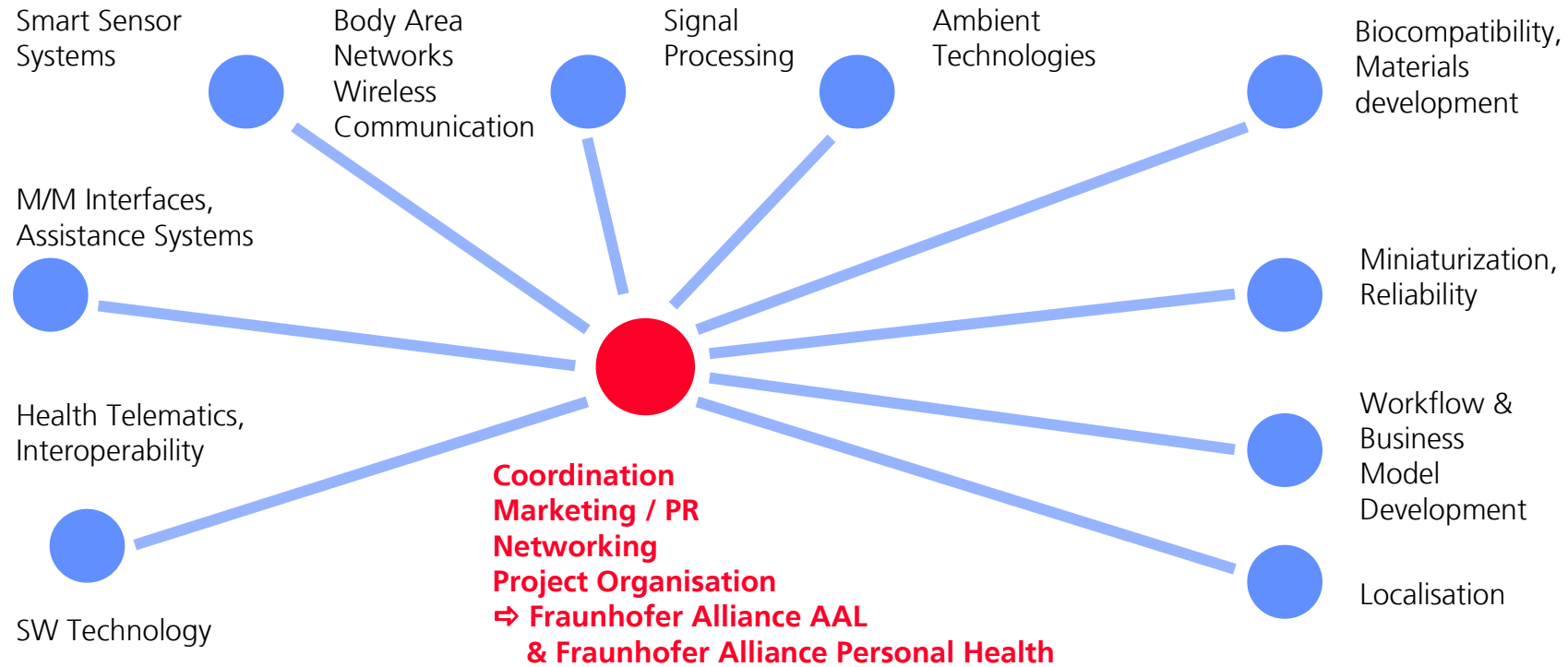


# Middleware for self-organizing heterogeneous distributed device ensembles

New device enter the ensemble over Stage interfaces which are shared across appliances



# Fraunhofer AAL & Personal Health Technologies and Activities



- Alliance Personal Health (in preparation) to
- coordinate and link existing expertise, resources and projects in the area of health-related AAL
- interfacing to insurance companies, health professionals, care givers and manufacturers
- bridge the gap between concepts, prototypes and markets

# Partners

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- Enterprises or SMEs (manufacturers) to bring these prototypes to the market and in parallel to enhance these products to plug in to our infrastructure
- Additional insurance companies, regularity and health professionals and care givers

A person in a kayak is paddling on a river. In the background, a large, dark rock formation is visible. The scene is captured from an elevated perspective, showing the river's surface and the surrounding environment.

# Challenges are everywhere!

# Thank you!

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