

The CompanionAble Project

FP7 ICT & Ageing Integrated
Programme

Grant Agreement Nr 216487



Project Partners

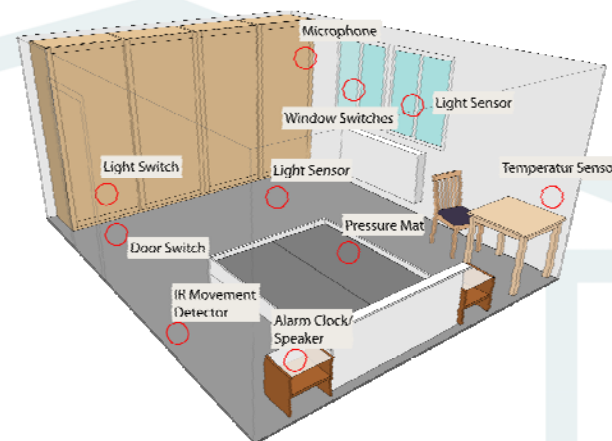


1. Provide a new AAL solution through the synergetic combination of the strengths of an embodied mobile robotic companion with the advantages of a stationary smart home environment.
2. Semantic – Cooperative integration at sensor level.
3. Semantic-Cooperative integration between the robot and the smart house sensor network environment.
4. Semantic-Cooperative integration of personal therapy management (possibly involving home information spaces such as the home TV screen, healthcare staff, medical professionals, gerontologists).
5. Semantic-Cooperative integration between the home environment (including smart house sensor network plus the robot) and the care system (District nurse/social services/healthcare system) including alerts as required.

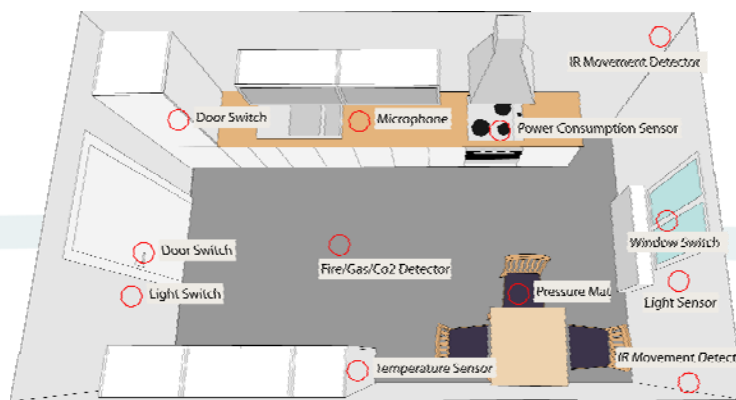
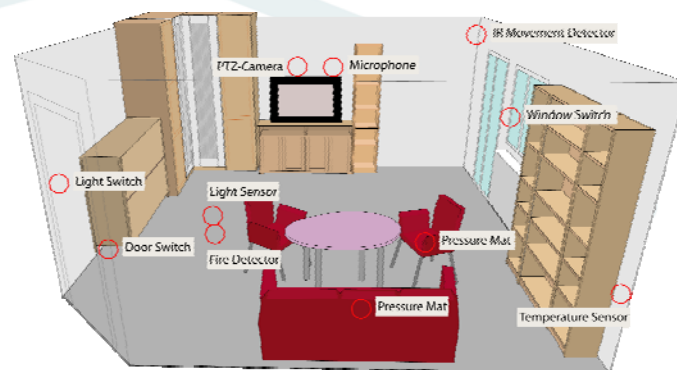
6. To create a system for health education for the patient and family, providing self-confidence and improving quality of life.
7. To create a system able to help with improvement of contacts between the person and his/her carers and the wider social setting.
8. To create a system with more efficient homecare monitoring by enhanced communication and coordination with professional helpers.
9. Social inclusion and homecare of persons suffering from chronic cognitive disabilities.
10. To achieve the continuous availability of sense-ful close support and cognitive engagement of the elderly.

Advantages of Smart Home

- Numerous existing installations with a wide spectrum of functionality (incl. video-conferencing).
- High acceptance rates by the residents.
- 24 h reliability.
- Interoperability with domotics systems already successfully tested.

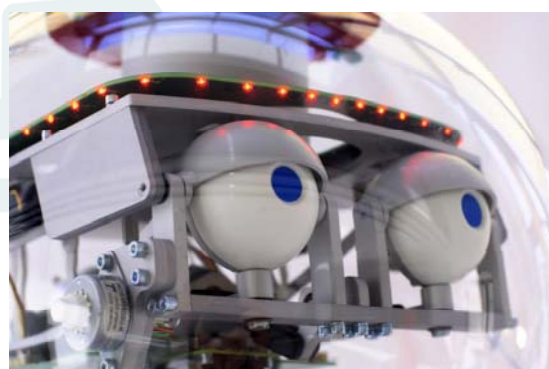


- Not limited to homes without stairs.
- Allows simultaneous monitoring of all rooms.
- Easy remote access to sensor systems and controllable devices.
- Low maintenance cost.



Advantages of the Mobile Robot Companion

- Real interaction partner – an embodied, anthropomorphic system with natural interface and human-like behaviour.
- Embodiment guarantees visible intimacy and privacy (e.g. by closing the “eyes”).
- Allows a plug-and-play solution (only requires “energy” and internet access).



- Low-cost solution without the need for reconstructing the home environment.
- Allows promising marketing policy: “Rent-a-robot” or “Robots-on-demand” as a personal social assistant.
- Mobility – allows mobile video conference, alarm evaluation, remote control by relatives / social care services.





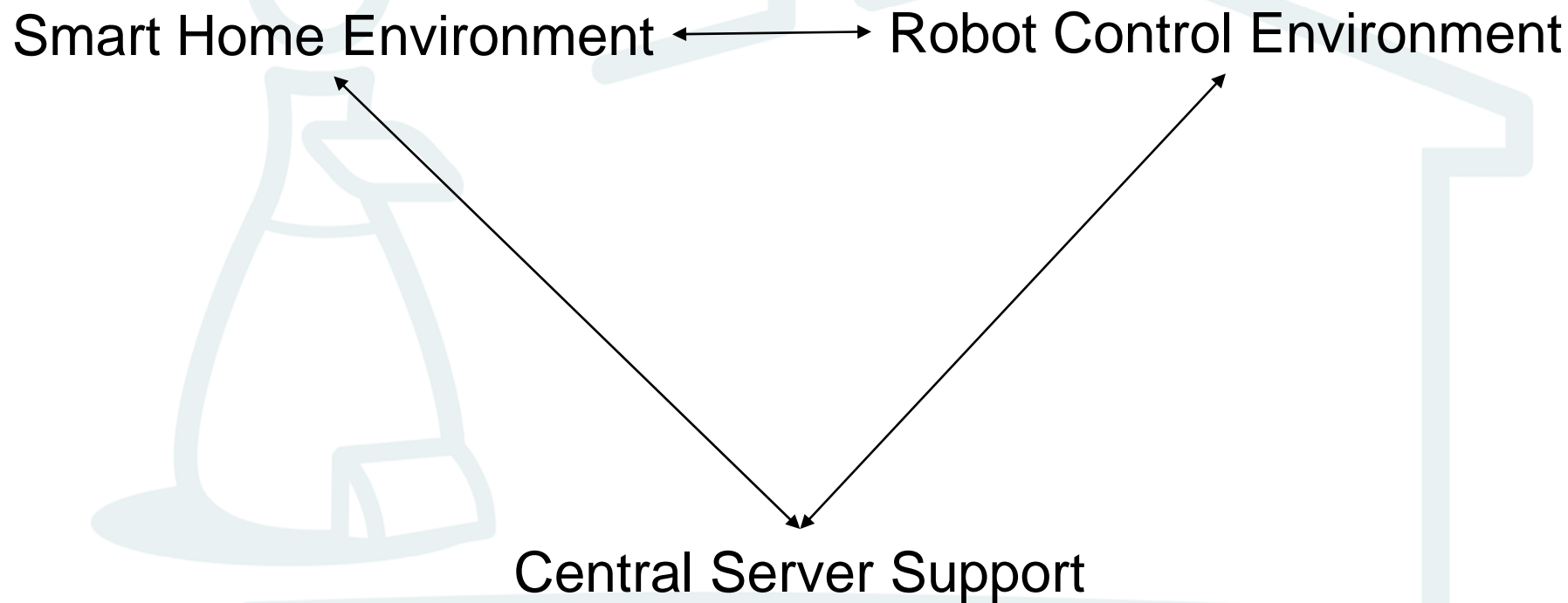
Support for the Elderly

Through the integration of the two sub-systems CompanionAble provides a care environment that supports carers, both family members and therapists, in their daily tasks. This involves:

- Realisation of an intelligent day-time-management.
- Content generation for cognitive stimulation and training and coherent delivery through multiple channels (stationary and mobile).



- Reminder function for medication taking and analysis of acquired data regarding the health status of the care-recipient.
- Efficient and natural social communication and care networking by means of audio-visual communication with relatives or care-givers.





Smart Home Environment

- Static Person Tracking & Service Delivery
- Monitoring and Actuation
- Passive Interaction through interfaces



Robot Control Environment

- Mobile Person Tracking & Monitoring
- Interactive Communication via Videophone
- Training Delivery
- Alarms Verification

- Training Management and Support
- Communication Facilitation
- Alarms Actioning



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