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**ALLIANCE FOR AAL AND
PERSONAL HEALTH**

*Fraunhofer Alliance
Ambient Assisted Living*

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The 13 partner institutes of the Fraunhofer AAL Alliance cooperate in the development of AAL and »Personal Health« system solutions. They pursue a unified approach integrating various technologies, applications and user groups as well as supporting activities in the areas of research coordination, business model development and standardization, thus enabling the construction of modular systems from interoperable components.

AAL denotes intelligent environments which adapt autonomously, proactively and situation-specific to user needs and objectives for daily life support. Intelligent environments specifically aim at elderly, handicapped and care-dependent humans enabling their autonomous life in their familiar private environment.

»Personal Health«-Systems typically utilize mobile and miniaturized medical devices specifically configured for diagnostic and therapy-supporting use in home or mobile (tele-monitoring) scenarios. »Personal Health« however also marks a shift in healthcare towards personalized, individual forms of prevention, diagnostics, therapy and care.

The institutes of the Fraunhofer AAL Alliance are the ideal partners for technology support and contract research in the whole area of Ambient Assisted Living and Personal Health solutions.

Combined AAL and Personal Health solutions out of a single source

Health-related »Personal Health«-Applications and AAL-Systems for assistance / comfort, safety / security, energy efficiency etc. are utilizing the same technologies, components and infrastructures.

From wire to application

In order to optimize functionality and costs of AAL applications, the whole range of utilized sensing, communication and data processing technologies and components has to be taken into account.

From sensor to system

To realize practicable solutions for the support of elderly, handicapped, receivers of medical treatment or care services, we integrate components for registration and assessment of vital and environmental parameters, user-adapted men-machine interfaces and expert systems.

From home to service provider

Fraunhofer AAL Alliance institutes provide complete system solutions along the whole value chain from private users to professional service providers to address a wide range of scenarios and projects.

- User-specific (multi-modal) man-machine-interfaces and assistance functions
- Acoustic and speech-based user interfaces
- Investigation and assurance of user acceptance, usability, accessibility and certification requirements
- Integration of technology use, services and business models
- Development of scalable, interoperable, self-organizing system structures
- Sensor technology and sensor signal processing for biosignals and environmental parameters
- Model-based recognition of health-related events and mental states
- Empirical and systematic system evaluation
- Infrastructure-reduced localization / navigation
- Optimization of wireless communication technologies
- Robotics for service and assistance applications
- Development of miniaturized, energy-optimized system components
- Information logistics and process design for health IT / tele-monitoring