



## Socio-Technical Assisted Neighborhoods

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#### Background in Germany

- typically, elderly people wish to stay in their self-chosenenvironment as long as possible...
- ...even if they experience a growing loss in quality of life and health problems
- family based support system is no longer sufficient





# Approaches for independent living in the familiar domicile

- technical solutions
- alterations to the home
- low-threshold assistance
- social communities in neighborhoods
- ...
- → new concepts, including social and technical solutions, have to be developed





## Technisch-soziales Assistenzsystem für Komfort, Sicherheit, Gesundheit und Kommunikation im innerstätischen Quartier (TSA)

(Ambient Assisted Living – for older adults in urban areas)

#### The project...

- ... aims to develop a support system for independent living in old age
- ... was launched in August 2010
- ... is a joint project of engineers and sociologist, private enterprises and NGO's
- ... is funded by the German Federal Ministry of Education and Research





# Ambient Assisted Living for older adults in urban areas (TSA)

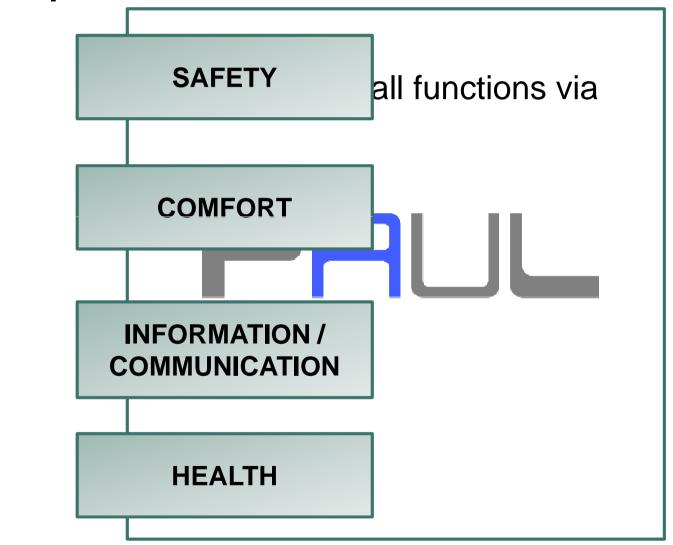
#### Aim of the project:

- to help older adults to live independently in their accustomed homes and apartments
- to develop a concept of technical and social components, suitable for the elderly with little or no technological competence
- to promote social integration (active neighborhood community and involvement into the residential district)
- to involve the target group into the development process
- to analyze if and to which extent modern technology along with social assistance help to maintain the quality of life of older adults or even improve it.





#### **Technical Concept**

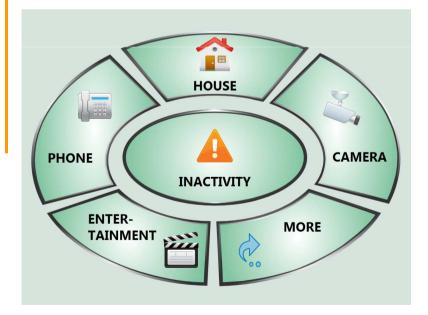






#### **Technical Concept**





# Personal Assistant Unit for Living

- Human Machine Interface, (usability tests with elderly)
- Comfort & Safety features
- Central Data Collection and Storage
- Data processing and interpretation
- Alarm generation





## Social Concept

- establishing and maintaining social contacts in the neighborhood
- local neighborhood club: important connecting role
- Aspired: integration of general and special services from facilities nearby:
  - dwelling maintenance (landlord)
  - promotion of neighbourly help (neighborhood club)
  - "meals on wheels" (nearby nursing home)
  - laundry service (nearby nursing home)
  - skilled nursing (German Red Cross)
  - social services (German Red Cross)
  - housekeeping / domestic assistance (German Red Cross)
  - doctors, hairdressers, ...





#### Sociological Research

- Gather feedback about elderly people's experiences and acceptance of the technical devices
- regular meetings in the facilities of the local neighborhood club
- Find out how technology supports everyday life
- Iterative development process
- written survey of tenants aged 60 and older (n = 171) (general acceptance of AAL technology, willingness to pay, needs of services)







## **On-Road Trail**

- equipment of 10 out of 20 targeted apartments
- different buildings, older housing stock
- iterative process: not all functions installed right from the start.







#### Experiences so far... I

- potential users: relatively high level of acceptance to use AALtechnology at home, especially in the fields of safety and health
- acquisition of new participating households very difficult
- current prospects: acquaintances / neighbors
- local neighborhood club important for acquisition of participants
- possibility to order services via PAUL valued positively by most interviewees
- professional help only in urgent need





## Experiences so far... II

- different levels of acquisition: daily vs. occasional usage
- Important: local contact person & prompt help at technical difficulties
- PAUL has a connecting effect:
  - participants enjoy regular project meetings
  - additional meetings to exchange experiences
  - Skype contacts instead of normal phone
  - mutual assistance, e.g. accompany to the supermarket, chauffeur to various places, and check if everything is in order
  - more active in the neighborhood club.



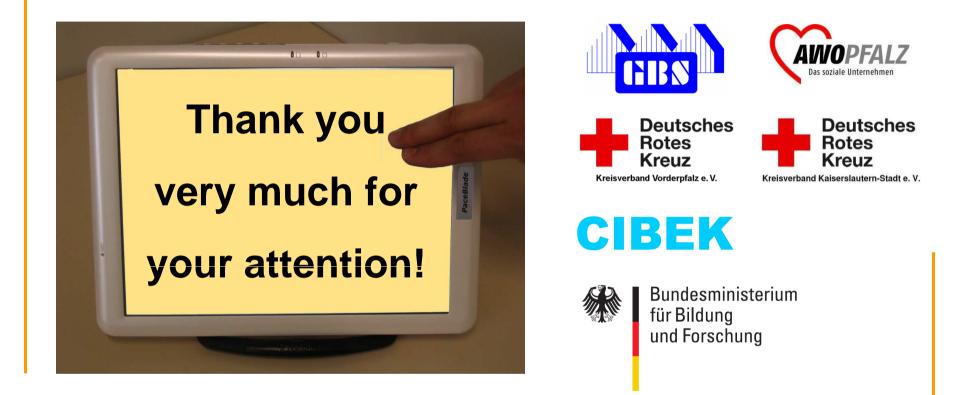


#### **Summary and Perspective**

- integration of organizations, services and companies in the urban neighborhood form a central aspect of care in old age.
- enjoyment of using PAUL
- PAUL enhances comfort
- use of information and communication features increasing
- Safety, security and health aspects yet to evaluate
- AAL concepts including services have to be considered critically in regard to the acceptance in practice.
- project design may help to foster neighborly friendships and thus avoid loneliness of senior citizens









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