Involvement of elderly people in RTD for assistive technologies

in the Living Lab Schwechat

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Important objectives

• Assistive technology
• Acceptance
• usability
Actors of the AAL-LL Schwechat

- CEIT - Central European Institute of Technology
- municipality of Schwechat
- senior centre of the city of Schwechat
- local social service providers
- organisations of senior people
- citizens of Schwechat ("research-citizens")
- enterprises
CEIT’s approach

- user oriented R&D in the AAL area
- continuous involvement of users & user centred interactive design
- multidisciplinary approach

- integrating social science aspects of technology: ethics of new technologies, analyses of the real needs, wants and wishes of users
  - Ethical sound involvement of users
    - Protection of vulnerable users
    - Informed consent procedure
    - Continuous ethical review
  - Ethics in the new device
    - Example: balance between privacy and additional safety provided by monitoring system

 ➤ technology to support the human to human contact (not as a replacement)
Iterative Development Process


In a day-to-day context
Interactive Picture

- intuitive voice and video communication platform for Senior Citizens
- based on touchscreen-PC
- development, test & evaluation in Living Lab Schwechat
- In cooperation with
..at the beginning
1st trials
redesign / improvement
real life tests
project VITALiShoe

instrumental
Applied and
ICT based

gait analysis
using an
instrumented
shoe

objective:
fall prevention
participative R&D in living lab

user involvement

Instrumented sole

embedded computing
signal processing
eHome

• objectives:
  – Improving personal safety and quality of life in senior’s own home
  – Wireless (ZigBee) sensor network
  – recognition of critical situations
  – recognition of falls
  – monitoring safety-critical area sicherheitsrelevanter Wohnbereiche (e.g. cooker)
  – automatic alarm generation for getting external help
  ➔ enabling elderly people to stay in their own home as long as possible

• in cooperation with
  – Vienna University of Technology
  – TREVENTUS MECHATRONIK GmbH
  – Kapsch CarrierCom AG
AAL - Demo-apartment

- Located in the senior‘s centre of Schwechat („Seniorenzentrum“)
  - show room for already available assistive technologies and barrierfree design
  - test- and demo-bed for new developments
  - project status:
    „on air“ since end of May 2009
  - cooperation with service organisations for elderly people
  - partnerships with companies
  - supported by the municipality of Schwechat
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thank you

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