Enabling Elderly Autonomy in Home Living

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About us

- University of Trento, IRST (Institute for scientific and technological research)
  - Research
    - » Requirements Engineering
    - » Embedded Systems
    - » Computer Vision and Signal Processing
    - » Software quality and Safety critical Systems
  - Technology transfer
    - » Development of Embedded systems for bio-signal monitoring
    - » Joint activities with automotive and avionics companies
    - » Activities in domotics supported by the Regional Government

The vision

Title: (EnEAH) **En**abling **E**lderly **A**utonomy in **H**ome living

Goal: Assisted living for the elderly with **Partial disabilities**

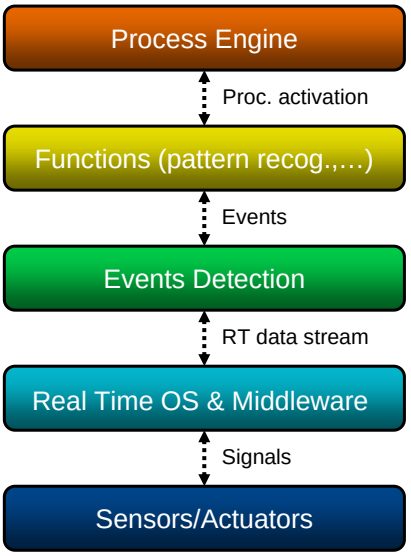
- Outstanding issues:
  - Reliability,
  - Non-invasive interfaces,
  - Costs containment
  - Adaptivity
- Features:
  - Generic process
  - Configurable instantiations
  - High degree of usability

The vision (2)

Enabling Solutions

- Requirements Engineering
- Generic software architectures
- Embedded Systems design
- Signal processing
- Installation-time configuration
- Run-time adaptation
- Human Computer Interaction

A layered architecture



e.g. nurse intervention,
medical intervention,
call center activation

e.g. identification of patterns over time,
repeated movement during the night

e.g. patient turned in bed,
heart condition attention/alert

e.g. continuous data stream collection

e.g. bed instrumented with sensors,
electronic t-shirt

The consortium

- Currently on board
  - Research partners:
    - » ITC-irst, University of Trento, Italy
    - » TU Aachen, Germany
    - » Forth Institute of Computer Science, Heraklion, Greece
  - Companies
    - » GPI, Italy
  - End users
    - » Fondazione don Gnocchi,
    - » Provincia Autonoma di Trento (Social Services branch of local administration), Italy
- Extra EU partners:
  - University of Toronto, Canada
- Needed partners
  - End users, e.g. Social and Healthcare Organizations
  - Companies
  - Other research Institution