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Corporate Technology

Accessibility and AAL @ Siemens -

experience from AAL and Accessibility Projects

32nd meeting of IEC TC100/AGS
22 October 2012

Klaus-Peter Wegge
Siemens Accessibility Competence Center

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Motivation

"I have always wished for my computer
to be as easy to use as my telephone;
my wish has come true
because I can no longer figure out
how to use my telephone"

Bjarne Stroustrup

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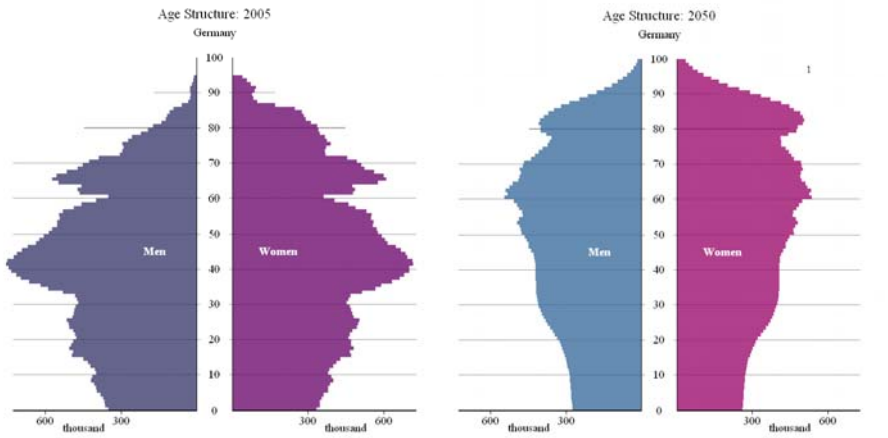
Demographic Change



Source: Statistisches Bundesamt 2006

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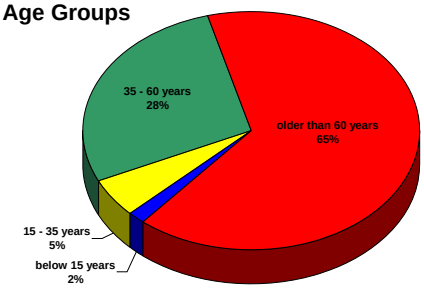
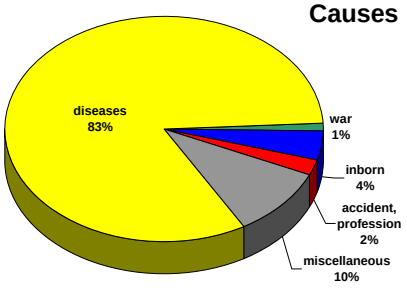
Age Groups and Causes for Impairments

Age Groups



Causes



Most Impairments are caused by Diseases or Injuries.

Source: Statistisches Bundesamt 2007

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Definition Accessible Design

"Design focussed on principles of extending standard design to people with some type of performance limitation to **maximize the number of potential customers** who can readily use a product, building or service …"

(ISO/IEC Guide 71)

There are three main strategies for DFA:

- design for most users without modifications,
- design for easy adaptation to different users,#
- design with a view to connect seamlessly to assistive devices. (European Commission)

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User Groups of AAL Services

- all persons, who are able to afford comfort & convenience
- persons with temporary limitations
- older persons with age typical abilities
- persons with disabilities of all ages

The accessibility of user interfaces of AAL services is a prerequisite for their applicability and acceptance.

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Accessibility only for the Elderly?

Ability is not a property of individuals,
but a function of the interaction between
individual and society.

Physical ability
Sensory ability
Cognitive ability
+
Context
=
Situation-dependent ability

One or more activities often occurring Reading or writing SMS while cycling

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User-Centered Design?

Currently the development of new products is driven by the ambition to satisfy people who are already engaged in modern technologies

–

leaving those behind, who are not.

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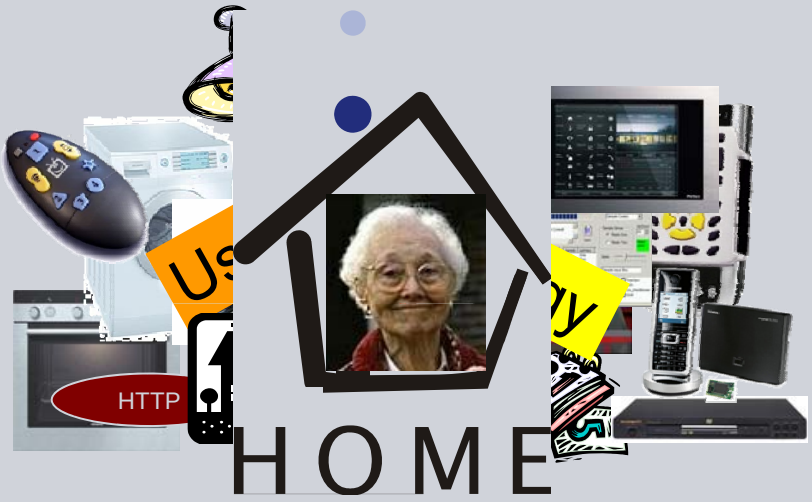
The Chaos



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Product Groups

Consumer Products (Design for All)
- Household appliances
- Cordless and Mobile phones
- PND (Personal Navigation Device)

Services (Accessibility)
- AAL
- ICT
- Self-service terminals
- Public transport

Assistive Technology
- Hearing aids
- Special keyboards

Workplace
- Disabled employees
- Medical devices

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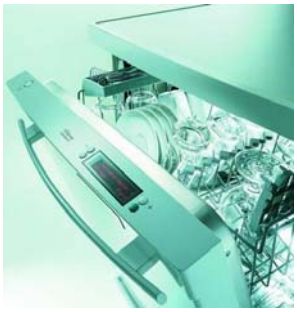
Consumer Products



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Services

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Washing Machine Balay 3TS-72129 AD

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Siemens Liftmatic

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Components of Smart Homes

- household appliances, home control, Smart Grid
- Entertainment
- Communication
- Intelligent Services (AAL)

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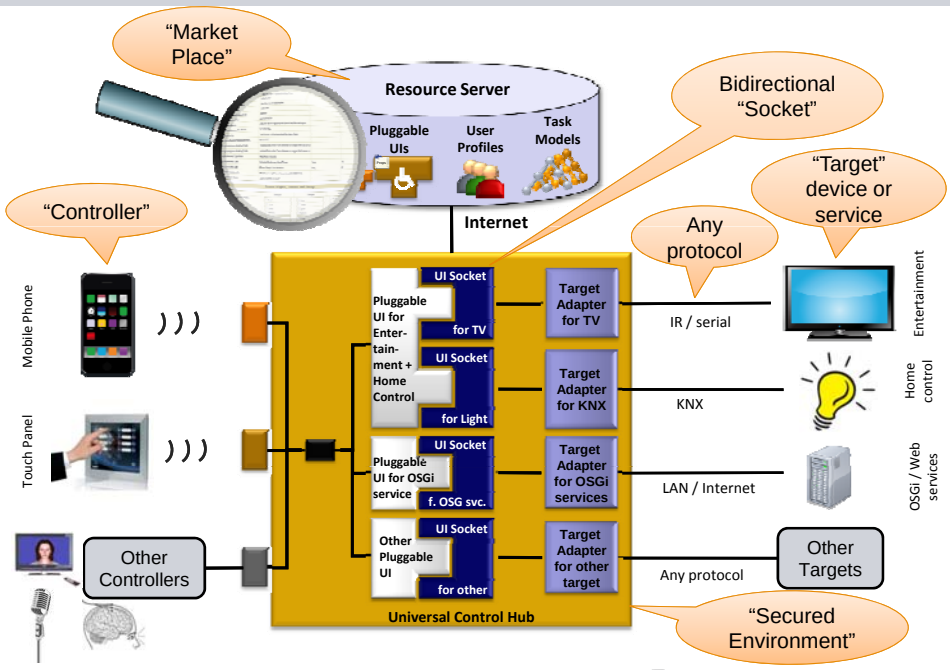

openURC is an international alliance promoting ISO/IEC 24752 Universal Remote Console (URC)

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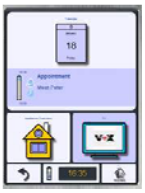
i2Home



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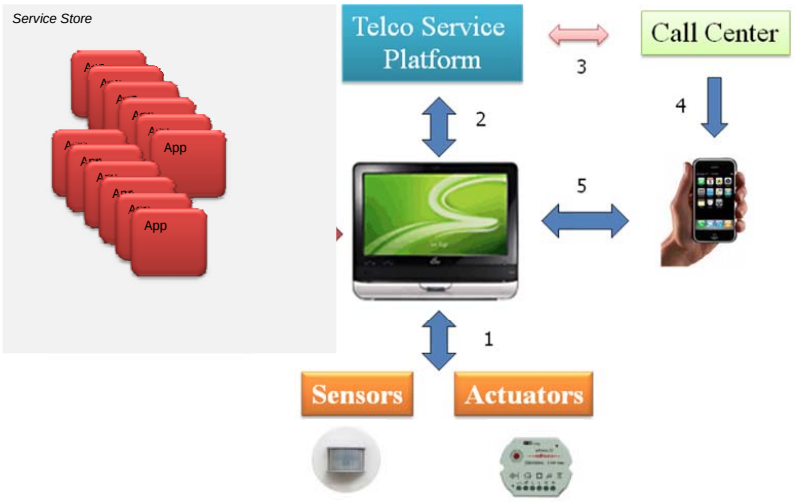
Intelligent Services



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Homecontrol

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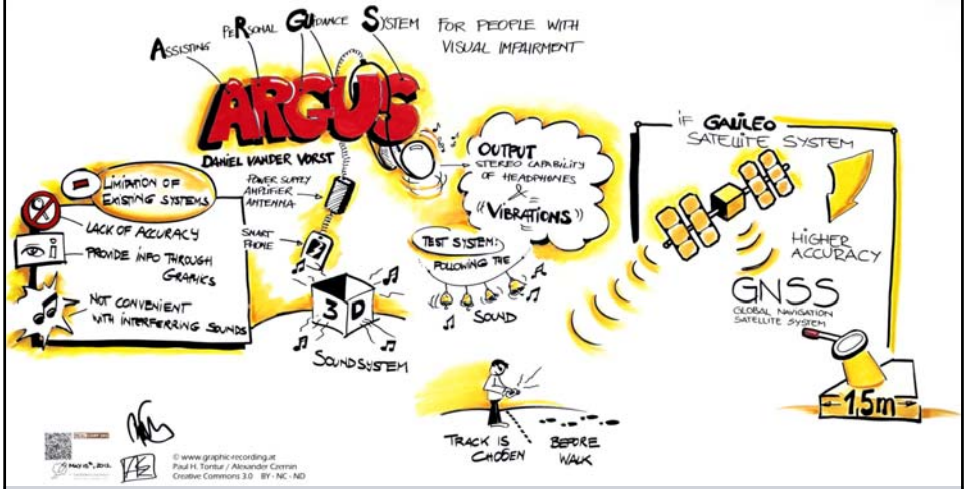
ARGUS



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HaptiMap

- Interaction design research
- Development of novel techniques to support way finding and navigation
- Design Tools
- Toolkit







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Talking DAB-Radio

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Voiceonly Navigationsystem

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Talking Set-Top-Box

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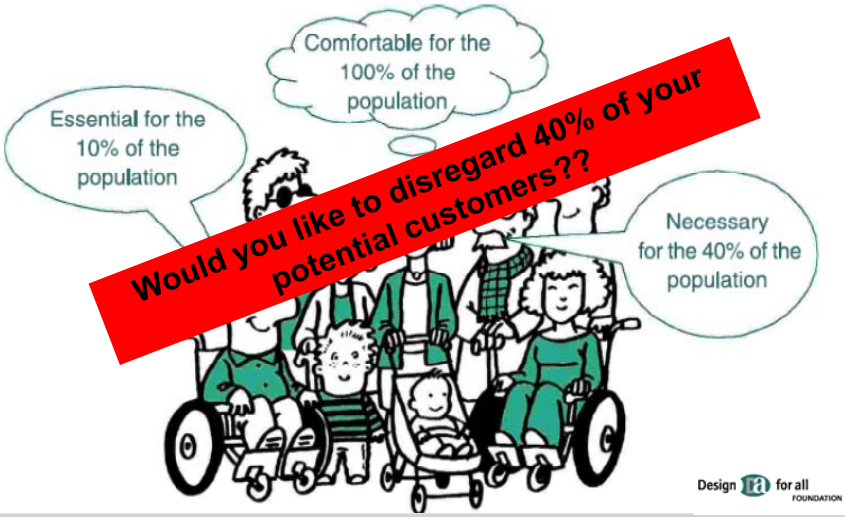
Design for all is…



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