Active Ageing –
The Various Needs of Older People

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Active Ageing - The various needs of older people - Overview

- What do we mean by "Active Ageing"?
- Older people's activities – and
- the significance of being able to pursue desired activities for their quality of life
- The potential of new ICT and AAL technologies and related services for supporting older people in active ageing
- The preconditions for fruitful implementation and application of the technologies, systems and services in order to meet older people’s various needs and wishes.
The concept of "Active Ageing" is ...

- included in the current European Employment Strategy and Health Strategy,
- emphasised in the mid-term review of the Lisbon Strategy,
- addressed in the EU initiative "i2010 - A European information society for growth and employment",
- emphasised in the Ministerial Declaration, June 2006, underlining the use of Information and Communication Technology (ICT) options for Active Ageing. This declaration explicitly stresses the need to address "ICT solutions for Active Ageing"
- a key element of the concept of the "Ambient Assisted Living" (AAL) initiative.

What do we mean by "Active Ageing"?
Active Ageing - The various needs of older people

What do we mean by "Active Ageing"?

- Still fully employed?
- Hiking and biking?
- Watching TV?
- Doing voluntary work?
- Surfing the Internet?
- Looking after one's grandchildren?
- Visiting friends and relatives?
- Just being cozy at home?

There are many facets of Active Ageing!
Active Ageing - Definitions

- **What do we mean by "Active Ageing"?**

  **WHO definition (2002):**
  "Active Ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age".

  **IPTS definition (2008):**
  "Active Ageing policies are those that aim to enable people, as they grow older, to lead independent lives (socially and economically) and to make a full range of choices in the way they shape their lives in all its life spheres".

  **Active Ageing!**
# Older people's activities (5 categories)

## Social Out-of-home Activities
- Meeting friends and relatives
- Going to a café, bar, or restaurant
- Dancing, bowling
- Visiting church, religious events
- Activities in clubs or associations
- Activities for retired people
- Voluntary or charity work

## Social Indoor Activities
- Receiving visits
- Talking on the telephone

## Home Activities
- Watching TV
- Just being cozy at home
- Reading, solving riddles
- Do-it-yourself, handicrafts
- Surfing the Internet
- Playing computer games

## Physical Activities
- Going out for a walk, strolling through town
- Hiking, riding a bicycle
- Gardening
- Actively pursuing sports
- Watching sporting events (not TV)
- Fishing
- Picking berries and mushrooms

## Cultural Activities
- Visiting theatre, concerts, cinema
- Visiting library
- Further education
- Artistic activities

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The MOBILATE Project

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## Range of activities in selected European countries (M)

<table>
<thead>
<tr>
<th></th>
<th>Finland</th>
<th>West Germany</th>
<th>East Germany</th>
<th>Hungary</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social out-of-home activities (0-7)</td>
<td>2.1</td>
<td>2.2</td>
<td>1.3</td>
<td>1.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Social indoor activities (0-2)</td>
<td>1.2</td>
<td>1.4</td>
<td>1.4</td>
<td>1.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Home activities (0-6)</td>
<td>2.6</td>
<td>2.4</td>
<td>2.5</td>
<td>2.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Physical activities (0-7)</td>
<td>2.5</td>
<td>1.8</td>
<td>2.0</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Cultural activities (0-4)</td>
<td>1.0</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Total activities performed (% of all activities asked for in this country)</td>
<td>32</td>
<td>30</td>
<td>24</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>
# Satisfaction with different ranges of activities

<table>
<thead>
<tr>
<th></th>
<th>Finland</th>
<th>West Germany</th>
<th>East Germany</th>
<th>Hungary</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban / rural</td>
<td>Urban / rural</td>
<td>Urban / rural</td>
<td>Urban / rural</td>
<td>Urban / rural</td>
</tr>
<tr>
<td>Home activities only</td>
<td>5.2</td>
<td>5.8</td>
<td>3.7</td>
<td>5.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Home + 1 further category</td>
<td>7.4</td>
<td>6.7</td>
<td>6.3</td>
<td>7.3</td>
<td>6.0</td>
</tr>
<tr>
<td>Home + 2 further categories</td>
<td>8.4</td>
<td>8.0</td>
<td>7.6</td>
<td>7.5</td>
<td>7.7</td>
</tr>
<tr>
<td>Home + 3 further categories</td>
<td>8.6</td>
<td>8.4</td>
<td>8.3</td>
<td>8.0</td>
<td>8.2</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>8.4</td>
<td>7.8</td>
<td>7.3</td>
<td>7.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Wish for more activities (%)</td>
<td>41</td>
<td>28</td>
<td>20</td>
<td>14</td>
<td>24</td>
</tr>
</tbody>
</table>

Note.
Satisfaction with leisure time possibilities was assessed on an 11-point rating scale (0=not satisfied at all, 10=very satisfied).
<table>
<thead>
<tr>
<th>Reason</th>
<th>Finland</th>
<th>West Germany</th>
<th>East Germany</th>
<th>Hungary</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>urban</td>
<td>rural</td>
<td>urban</td>
<td>rural</td>
<td></td>
</tr>
<tr>
<td>General health reasons</td>
<td>25</td>
<td>34</td>
<td>57</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>42</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relatives and friends live too far away</td>
<td>25</td>
<td>38</td>
<td>14</td>
<td>19</td>
<td>8</td>
</tr>
<tr>
<td>No opportunities available</td>
<td>14</td>
<td>19</td>
<td>8</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>37</td>
<td>13</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>No one to go with</td>
<td>10</td>
<td>14</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care for family member</td>
<td>14</td>
<td>14</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>7</td>
<td>7</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>No time</td>
<td>26</td>
<td>12</td>
<td>13</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Too expensive</td>
<td>20</td>
<td>14</td>
<td>6</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>11</td>
<td>10</td>
<td>33</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>7</td>
<td>40</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No car</td>
<td>9</td>
<td></td>
<td>7</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Bad connections</td>
<td>9</td>
<td></td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Difficulty using public transport</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td>10</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td>7</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Note. Only persons who would like to take part in more outdoor activities (N=879).
Conclusions (1)

- Conditions differ substantially between European regions.
- Activities are more frequent in urban than in rural areas (except for the West German areas).
- Older adults who (can) pursue a broad range of activities are clearly more satisfied than those who can only take part in a limited range.
- Personal as well as environmental conditions play an important role in maintaining active ageing:
  - Increasing frailty, great distances / no opportunities, economic and social limitations.
- Good public transportation and access to a car can, to a certain degree, compensate for declining abilities and help overcome barriers and/or distances.
The needs of older people

- The potential of new ICT and AAL systems and services
Age-friendly AAL systems and services have the potential of ...

- prolonging the time older people can live decently in their own homes through the promotion of assistive technologies and services for integrated social and healthcare and, by this,
- realising increased quality of life, autonomy and selfconfidence;
- increasing access to healthcare (which is particularly important in remote rural areas),
- increasing safety through health/vital sign monitoring, personal emergency systems,
- use of detectors capable of noticing when a person falls down and related care services;
- Care and disease management, medication compliance etc.
Age-friendly AAL systems and services have the potential of …

- helping to gaining new skills through online learning and training
- providing information of relevant content, advice and assistance,
- broadening entertainment and self-expression,
- supporting social contacts and building new relationships;
- enhancing active participation in the society and economy through innovative access to goods and services,
- facilitating interactions with public and private entities;
- improving the use of resources.
The present situation: Equipment and attitudes

Availability of Information and Communication Technologies (ICT) (1-15, means)
- 55-64 years: 8.0
- 65-74 years: 7.0
- 75+ years: 5.9

Availability of household appliances (1-14, means)
- 55-64 years: 11.6
- 65-74 years: 11.1
- 75+ years: 10.0

Positive advocates (%)
- 55-64 years: 42.5
- 65-74 years: 40.9
- 75+ years: 16.6

Skeptics (%)
- 55-64 years: 37.3
- 65-74 years: 38.0
- 75+ years: 24.7

Rationally adapting (%)
- 55-64 years: 33.1
- 65-74 years: 42.5
- 75+ years: 24.4

Critics (%)
- 55-64 years: 27.1
- 65-74 years: 45.6
- 75+ years: 27.6

Note: * p<.05; ** p<.01; *** p<.001. Database: Sentha Survey 1999
The various needs of older people

Activities related to ICT - use

Data base:
The "sentha" Project
The various needs of older people

Pleasure connected with activities

Data base:
The "sentha" Project
# ICT use among older people

## Individuals who use the Internet at least once a week (2007)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th></th>
<th></th>
<th>Women</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16 - 24</td>
<td>25 - 54</td>
<td>55 - 74</td>
<td>16 - 24</td>
<td>25 - 54</td>
<td>55 - 74</td>
</tr>
<tr>
<td>EU 27</td>
<td>79</td>
<td>61</td>
<td>31</td>
<td>77</td>
<td>55</td>
<td>19</td>
</tr>
<tr>
<td>NL</td>
<td>95</td>
<td>92</td>
<td>64</td>
<td>98</td>
<td>87</td>
<td>46</td>
</tr>
<tr>
<td>UK</td>
<td>83</td>
<td>76</td>
<td>50</td>
<td>83</td>
<td>68</td>
<td>33</td>
</tr>
<tr>
<td>FI</td>
<td>98</td>
<td>86</td>
<td>48</td>
<td>98</td>
<td>87</td>
<td>40</td>
</tr>
<tr>
<td>DE</td>
<td>90</td>
<td>78</td>
<td>44</td>
<td>87</td>
<td>69</td>
<td>26</td>
</tr>
<tr>
<td>FR</td>
<td>84</td>
<td>67</td>
<td>34</td>
<td>84</td>
<td>63</td>
<td>23</td>
</tr>
<tr>
<td>IT</td>
<td>61</td>
<td>45</td>
<td>17</td>
<td>57</td>
<td>34</td>
<td>6</td>
</tr>
<tr>
<td>RO</td>
<td>50</td>
<td>23</td>
<td>4</td>
<td>48</td>
<td>21</td>
<td>2</td>
</tr>
</tbody>
</table>
The needs of older people

- **The potential of new ICT and AAL systems and services**

  In view of the increasing risk of competence loss in old and particularly in very old age, AAL systems have the potential of providing support to active ageing.

  Do technological possibilities in fact come in useful to older, impaired people?

  What are the challenges in view of future societal trends?
Older people are not a homogeneous group

Example:

- Comparing Impaired and Non-Impaired older people.
- Empirical basis: The "sentha" project
  - An interdisciplinary study, conducted in Germany in 1999 (N=1,417)

First findings: Impaired persons are characterized by

- lower education, lower income, living singly, being female, and higher age.
Fears reported regarding security

- Non-Impaired
- Impaired
- Men
- Women
- 55-64 years
- 65-74 years
- 75+ years
- 9 years of schooling
- 10 years of schooling
- 13 years of schooling
- Single household
- Multi-member hh
- Low income
- Medium income
- High income

Data base: The "sentha" Project

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### Equipment with domain-specific devices

<table>
<thead>
<tr>
<th>Domain</th>
<th>Impaired Mean</th>
<th>Non-Impaired Mean</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household</td>
<td>10.6</td>
<td>11.3</td>
<td>***</td>
</tr>
<tr>
<td>Health Care</td>
<td>6.4</td>
<td>6.2</td>
<td>n.s.</td>
</tr>
<tr>
<td>ICT</td>
<td>6.6</td>
<td>7.5</td>
<td>***</td>
</tr>
<tr>
<td>Security</td>
<td>0.9</td>
<td>0.8</td>
<td>**</td>
</tr>
<tr>
<td>Comfort</td>
<td>0.8</td>
<td>0.9</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

- **Mean**: Values range from 0 to 14 for Household, 0 to 13 for Health Care, 0 to 15 for ICT, 0 to 7 for Security, and 0 to 9 for Comfort.

**Significance**:
- ***: p < 0.001
- **: p < 0.01
- n.s.: p > 0.05

Data base: The "sentha" Project

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Wish for simplification of devices

Mean percentage of devices for which a wish for simplification was reported.

<table>
<thead>
<tr>
<th>Category</th>
<th>Impaired</th>
<th>Non-Impaired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>5,3</td>
<td>3,1</td>
</tr>
<tr>
<td>Household</td>
<td>5,4</td>
<td>2,6</td>
</tr>
<tr>
<td>Health Care</td>
<td>3,1</td>
<td>1,0</td>
</tr>
<tr>
<td>ICT</td>
<td>6,9</td>
<td>5,3</td>
</tr>
</tbody>
</table>

Data base:
The "sentha" Project

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The present situation - Summary

Impaired older people

- live in less favourable circumstances than the non-impaired;
- are less abundantly equipped in almost all technology domains than non-impaired persons;
- reported more bad experiences with devices;
- are interested in a better equipment of their homes, particularly with regards to household devices, health care and security –
- For many strenuous household tasks there are up to now no easily accessible technological solutions.

Need for new intelligent systems and a combination of technology and services

Data base:
The "sentha" Project

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Active Ageing - The various needs of older people

Future perspectives – next generations of older technology users

- Increased experiences with new technologies among younger cohorts
- Extended periods of living alone
- Improved standards of living – but also of impoverishment
- More active, mobile lifestyles
- Increased awareness of one’s body and health.
Active Ageing - The various needs of older people

Future perspectives – changes in health

- Improved health status among younger cohorts
- Increased period of life free from serious chronic illness or impairments – but also
- Increasing proportions of old persons with chronic illnesses and dementia

Future perspectives – new meanings of technology

- A means of compensation for a particular deficiency
  => part of the individual (and no longer a prosthesis).
The needs of older people – Conclusions (2)

- Until now, the younger, healthier, better educated and wealthier older people profit most from technological developments

In order to create an inclusive society, enhancing active ageing, a number of key conditions have to be fulfilled.

Challenge for designers, producers, service providers and social policy.
The needs of older people – Conclusions (2)

This means …

1. Adapt the systems to the conditions and requirements of the different phases of old age
   - phases of good health, activity, and social integration
   - phases of frailty, loneliness, and / or need of care.

2. Improve accessibility and usability of AAL systems by
   - design of devices and programmes
   - mainstreaming the 'Design for All' principle
   - creating interoperability, standards and norms.
3. **Improve the conditions for AAL by**
   - enhancing digital literacy and competences
   - covering privacy and data protection
   - reducing financial or educational barriers
   - accompanying measures (services, training, counselling)
   - flexible, integrative training and learning opportunities.

*Full commitment and close collaboration from industry, stakeholders, researchers, and older users.*
Active Ageing through AAL technology, systems and services – yes, but also

- Accept the limitations
  - of technology
  - of life.