European strategy in ICT for Ageing Well

IFA Conference on Ageing in Place and Age Friendly Cities, 10/10/2009, Akita

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European Commission
Changing Global Demographics

Percentage of world population over 60 years of age

Source: UN, 2006 Revision of World Population Prospects, Espicom 2005
Technologies (ICT) and Demographic Ageing in Europe

**Social necessity**
- 80+ population doubles until 2050; 60+ from 20% (2000) to 29% (2025)
- 21% of 50+ population has severe vision/hearing/dexterity problems
- Today 4 working for 1 retired, in 2050 only 2 working for 1 retired
- Cost of pensions/health/long-term care go up by 4-8% of GDP by 2025
- Shortfall of care staff

**Economic opportunity**
- Empowering elderly persons to age actively
- Wealth and revenues in Europe of persons over 65 is over 3000 B€
- Smart homes market will triple between 2005 and 2020
- Early patient discharge by tele-health reducing cost by 1,5 B€ p.a. (D)
- Tele-care at home empowering elderly and efficiency gains of 25% (UK)
Example: ICT and Alzheimers Disease

- Total care costs of Alzheimer's disease in 2005 was €130 billion for the EU 27 region (7.3 Million people)

- ICT solutions can help to:
  - Keep elderly mentally active
  - Keep elderly at home for longer
  - Assist relatives and carers through remote monitoring and tracking = Reduce stress and workload
  - Improve efficiency of care
  - Reduce costs for society

- High social impact and large market opportunity
ICT in support of older people...

- **At Work**
  - Staying active and productive for longer
  - Better quality of work and work-life balance

- **In the Community**
  - Overcoming isolation & loneliness
  - Keeping up social networks
  - Accessing public services

- **At Home**
  - Better quality of life for longer
  - Independence, autonomy and dignity
Characteristics of ICT in support of older people...

- Strong relation between health and ageing
  - Often multiple chronic diseases
  - Mental and physical decline
- Strong relation between ageing and disability
  - Need to address usability and accessibility of technology
- Multiple, diverse and changing needs
  - Elderly are not a homogeneous group
  - Need to adapt solutions to individual needs and capabilities
- Need for a holistic support approach
  - Health, but also
  - Safety, mobility, daily living, .....
Ageing well and ICT: barriers

- Older people don’t use the Internet and find technology challenging
- Ageing needs not yet in mainstream products
- Legal and technological barriers
- Fragmented markets and Business Models
Policy Context

Follow-up to

i2010

- eHealth Action Plan
- Support to Ambient Assisted Living Joint R&D Programme, June 2007
- European e-Inclusion Initiative “To be part of the information society”, Nov 2007
Ageing Well in the Information Society: A triple win for Europe

• Improving the quality of life of elderly people, and of their relatives and carers

• Ensuring sustainability of health and social services in terms of financial and human resources

• Creating new jobs and business opportunities for European industries
A 4-point action plan

• Raise awareness, shared understanding and common approaches
  • Best practice exchange, awards
  • Ministerial conference, 30 Nov-3 Dec 2008 in Vienna

• Create the right conditions – remove barriers
  • Stakeholder groups, studies, benchmarking

• Accelerate investment in and take-up of proven solutions
  • ICT Policy Support Programme, Innovative public procurement, Regional Funds

• Prepare for the future through research and innovation => FP7 and AAL Joint Programme
ICT for Ageing Well
A Comprehensive EU Approach

Ageing Well Action Plan

Technology Risk

FP7
- Challenge 7 & 5
- longer-term R&D
- integration of new ICT & new ideas
- open platforms and interoperability
- ~400 M€ in total

AAL JP
- market oriented R&D
- cost-efficiency
- adaptation to specific demands, ...
- ~600 M€ in total

CIP ICT PSP
- large scale trials (using existing technology)
- service and organizational innovation
- business case development, ...
- ~50 M€ in total until now

Time to Market

5-10 years

2-3 years

deployment

11
EU R&D Support

Framework Programme 7 ICT research
Challenge 7: ICT & Ageing
- Advanced Prototypes for independent living/active ageing (Ambient Intelligence, Robotics)
- Open Systems, Reference Architectures, Platforms
- Support: roadmaps, standards, S/E research, Int’l cooperation

Challenge 5: eHealth
- Personal health systems monitoring; minimal invasive systems, artificial organs, mental health
- Support actions: roadmaps, wireless use, interoperability

Currently ~30 projects, 200 M€

International participation possible
Stepping up research through the AAL Joint Programme

- New Joint Programme between Member States on market-oriented ICT research in Assisted Living technologies and services
  - Total investment >€600m
  - National contribution of at least €150m
  - EC contribution up to €150m
  - Co-funding by Industry and Research ~ 50%
  - 2-3 Years to market

- Complements longer term research in FP7 - €400m and EU CIP pilots

- Linking National programmes to EU research

International participation possible on a case by case principle
AAL JP Focus Areas

2nd Call closed 5th May 2009

1st Call

Ambient Assisted Living

- Health & Wellness
- Home Care
- Hobbies
- Well being Person
- Supply with Goods & Chores
- Safety, Security & Privacy
- Social Interaction
- Information & Learning
- Working Life
- Mobility
- Surrounding
- Person@Home
AAL Joint Programme –
National participation so far

☑️ Interested
☑️ Committed
With more than 30 M€/Year
EU Innovation Support

ICT Policy Support Programme
Large deployment pilots

- Independent and healthy living
- Chronic disease monitoring
- Daily living assistance ... integrated health/social care
- User acceptance, common specs, cost-effective, interoperability
- Building on Regional activities

- High visibility, market driven
- Overcoming fragmentation
- Enable scaling up, investment
- Value chain cooperation
- Regional/rural/urban renewal

(+ pre-commercial procurement, Structural Funds)

10 pilots (Call 1-3),
15 M€ in 2007
10 M€ in 2008
8 M€ in 2009

International participation not possible for the moment
CIP ICT PSP
(Competitiveness & Innovation Programme -
ICT Policy Support Programme)

- Deployment/validation of existing technology
  - Strong involvement of Regions
    (3-4 regional pilots in every project)
  - ~100-150 Users in each pilot project

- 2007 Call 1: Pilots on Ageing/Health
  - Management of multiple chronic diseases and support to independent living of elderly people

- 2008 Call 2: Pilots on Ageing
  - Ageing well with cognitive problems (early dementia)

- 2009 Call 3 Pilots on Ageing/Health (open until 2 June 2009)
  - Integrated health and social care solutions for ageing well, within care organisations and towards the elderly users
  - See http://ec.europa.eu/information_society/activities/ict_psp/index_en.htm
Regions involved in ICT PSP e-Accessibility and Ageing (Call 1 and 2)
CAPSIL Support Action


• Goals:
  • to develop a CAPSIL Roadmap
  • To provide knowledge dissemination
  • To use the CAPSIL Roadmap to help policy makers in the EU, US and Japan coordinate research agendas and funding efforts

• www.capsil.org
AALIANECE Innovation Platform
Main Objectives

- SRA
- Roadmapping
- Standardisation Requirements
- Policy Recommendations
- Community Building

http://www.aaliance.eu
### Maturity levels of emerging market segments

<table>
<thead>
<tr>
<th>Segment</th>
<th>Maturity Levels</th>
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<tbody>
<tr>
<td><strong>Telecare:</strong></td>
<td></td>
</tr>
<tr>
<td>1st generation</td>
<td>no / little activity at all</td>
</tr>
<tr>
<td></td>
<td>trial / pilot activities</td>
</tr>
<tr>
<td></td>
<td>some mainstreaming</td>
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<tr>
<td></td>
<td>fully mainstreamed</td>
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<tr>
<td>BG</td>
<td>BG</td>
</tr>
<tr>
<td>DK, DE, ES, FI, FR, HU, IE, IT, NL, SE, UK, US, JP</td>
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<tr>
<td>2nd generation</td>
<td></td>
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<tr>
<td></td>
<td>BG</td>
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<tr>
<td></td>
<td>HU</td>
</tr>
<tr>
<td>Leading: UK, FI, US. Others: ES, IE, SI, DE, DK, NL, SE, JP, IT, FR, PL</td>
<td></td>
</tr>
<tr>
<td>3rd generation</td>
<td>All countries except US, JP</td>
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<td></td>
<td>(trials beginning in some EU countries)</td>
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<tr>
<td></td>
<td>US, JP</td>
</tr>
<tr>
<td>Telehealth</td>
<td>IE, SI, BG</td>
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<tr>
<td></td>
<td>IT, FR, HU, NL, PL, (JP)</td>
</tr>
<tr>
<td></td>
<td>Many instances: US. Some instances: DK, ES, FI, UK, DE, SE</td>
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**Ageing Market Study**

www.ict-ageing.eu
Very diverse penetration levels even in mature market segments

Penetration of social alarms (% older people aged 65 years and older)
Example: Danish policy initiative for Labour saving Welfare technology

- 6.7 billion Dkr. fund for renewing the public sector (hospitals, schools, nursing homes, kindergarten)
- Labour saving technology fund (2009-2015:)
  - 400 mill euro in total
  - 75 euro pr. inhabitant in Denmark!
  - Focus on implementation of Welfare technology (AAL/e-Inclusion), telemedicine and administrative technology
- Rebate incentive scheme for public authorities
Example: West-Lothian Initiative UK
Telecare in Scotland gives a 5 times return

<table>
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<tr>
<th>Outcome</th>
<th>Minimum target for period 2007-2010</th>
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<tbody>
<tr>
<td>Hospital bed days saved by facilitating speedier hospital discharge</td>
<td>46,500</td>
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<tr>
<td>Care home bed days saved by delaying the requirement for people to enter care homes</td>
<td>255,000</td>
</tr>
<tr>
<td>Nights of sleepover care saved</td>
<td>46,000</td>
</tr>
<tr>
<td>Home check visits saved</td>
<td>905,000</td>
</tr>
<tr>
<td>No of TDP funded telecare users</td>
<td>13,505</td>
</tr>
<tr>
<td><strong>Estimated verifiable savings as a result of the Scottish Telecare Development Programme</strong></td>
<td><strong>£43m</strong></td>
</tr>
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</table>
Conclusions

• Ageing Well in the Information Society - **social necessity and economic opportunity**

• ICT has great potential for providing solutions, but **need for comprehensive policy support**

• **European Action plans launched** by the European Commission
  - Ageing well in the information society
  - eHealth Action Plan + eHealth interoperability
  - More than one Billion € in R&D between 2006-2013

• Great Opportunity for **International collaboration**
Further Information

- EU ICT and Ageing Well Initiatives
  http://ec.europa.eu/einclusion

- Challenge 7 of the ICT Programme on Cordis

- ICT Policy Support Programme

- Ambient Assisted Living Joint Programme
  http://www.aal-europe.eu/

- Best Practice Portal
  http://www.epractice.eu

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