

Ageing in Ageing Societies: Older People's Living Circumstances, Needs and Expectations

Dr. Heidrun Mollenkopf

Heidelberg University
Member of AGE Expert Group on Universal Accessibility and
Independent Living (tbc)

HITACHI Forum, Munich, 26 April 2008



1

Ageing in Ageing Societies - Overview

- The significance of technologies in ageing societies
- Older people's experiences and wishes
- Older people are not a homogeneous group
 - Example 1: Older people's out-of-home mobility
 - Example 2: Older people's equipment with technological products
- Older people's ICT use
- Future challenges

2

Dr. Heidrun Mollenkopf

Ageing in Ageing Societies - Overview

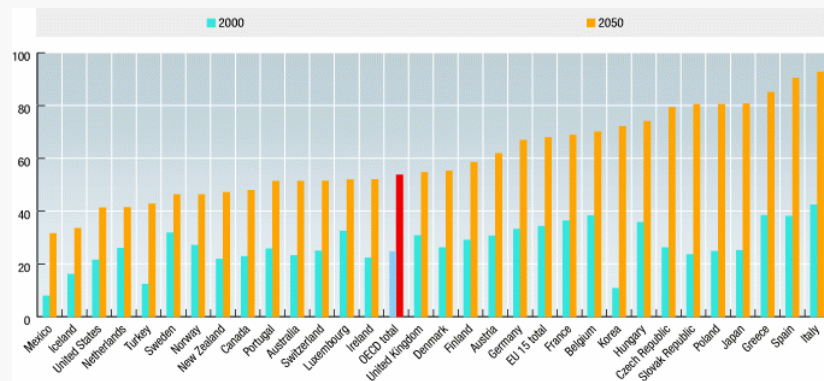
- **In modern societies, significance of technology has increased in all domains of life.**
- This holds also for older people's living environments.
- This is all the more important
 - **in view of the increasing risk of competence loss in old age,**
and
 - **in view of demographic changes –
the ageing of societies.**

3

Dr. Heidrun Mollenkopf

Ageing in Ageing Societies – Demographic Changes

Ratio of the inactive population aged 65 and over to the labour force (%)



OECD Factbook 2007 – Economic, Environmental and Social Statistics

4

Dr. Heidrun Mollenkopf

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

Ageing in Ageing Societies – Demographic Changes

The changing demographics of modern society include

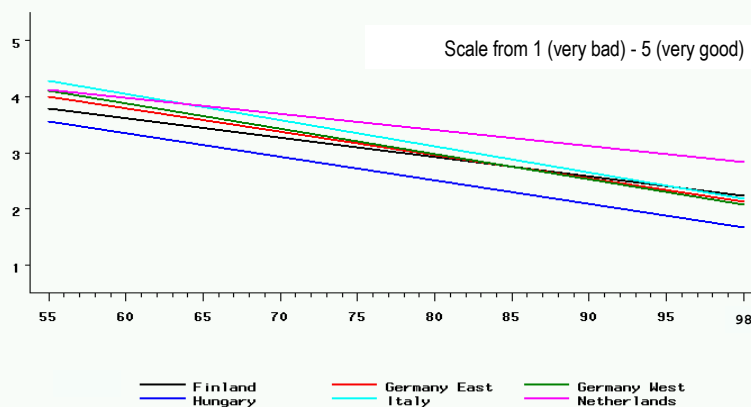
- increasing proportion of older people
- particularly strong growth among the very old
- trend towards living alone
- reduction in the size of the households due to decreasing birth rates
- shrinking family networks
- families' diminishing potential to care for older individuals.

5

Dr. Heidrun Mollenkopf

Increasing risk of competence loss

Activities of Daily Living (ADL; %)

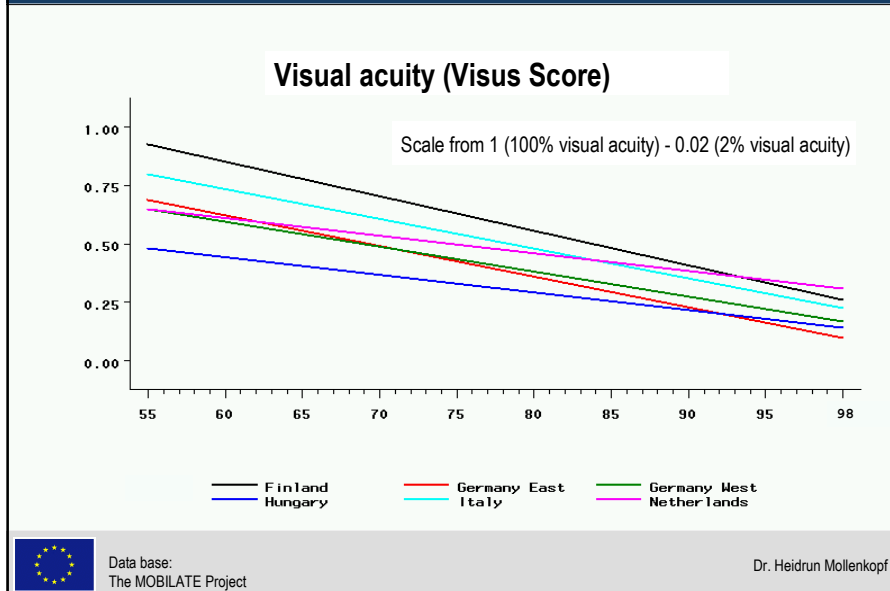


Data base:
The MOBILATE Project

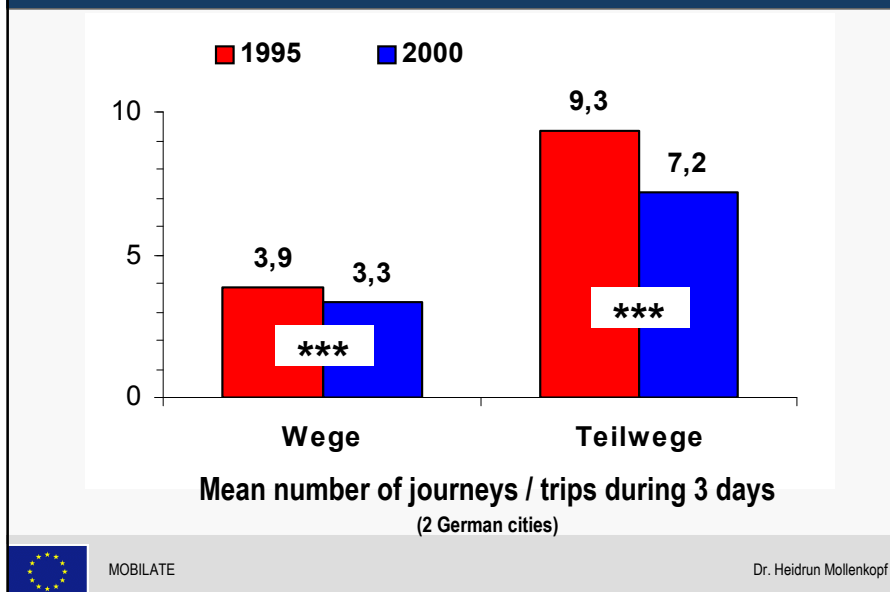
Dr. Heidrun Mollenkopf

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

Increasing risk of competence loss



Changes in out-of-home mobility 1995 - 2000



The needs of older people – Key challenges

Key challenges to independent living:

- Community participation / contribution to local communities
- Social isolation/loneliness
- Accessing information / Keeping up to date
- Security and Safety
- Forgetfulness
- Keeping healthy and active
- Checking up on care provision
- Getting access to shops and services
- Mobility inside and outside the home



9

Findings from the SOPRANO user study

The needs of older people

In view of the increasing risk of competence loss and of decreasing familial and professional support options, technological devices and systems have the potential of providing compensation and assistance in all these areas.

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

10

Dr. Heidrun Mollenkopf

The present situation

The present situation: Older people are not a homogeneous group

- Example 1: the out-of-home mobility of older people
- Empirical basis: the MOBILATE Project: "Enhancing Mobility in Later Life", funded by the European Commission
- A European study, conducted in 5 EU countries



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

Identifying Subgroups of Outdoor Mobility in Old Age

In order to identifying different subgroups of mobility,

Cluster analysis included

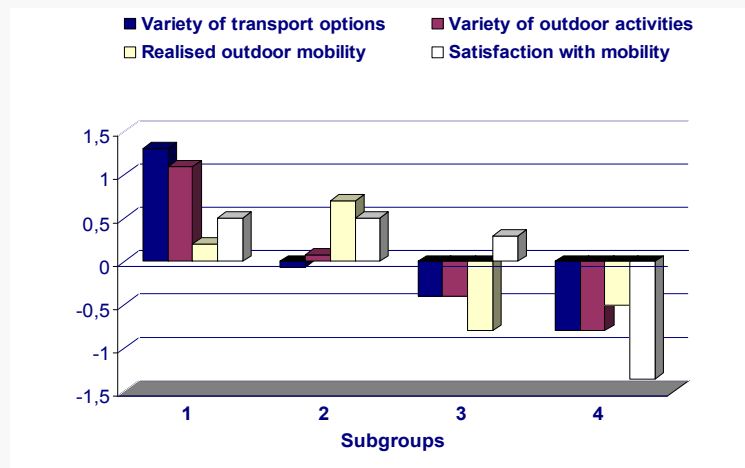
- Realised mobility (trips made, based on a diary)
- Variety of transport modes (used)
- Variety of outdoor activities (pursued)
- Satisfaction with mobility



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

Four Subgroups of Outdoor Mobility



Note. All scores z-standardized (M=0; SD=1) in order to facilitate comparison.



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

Four Subgroups of Outdoor Mobility

Four groups of older persons can be distinguished:

1. **“High outdoor mobility / high mobility satisfaction“**
= the **“mobility rich“**
2. “Medium outdoor mobility / high mobility satisfaction“
= an intermediate group
3. “Low outdoor mobility / still satisfied with mobility“
= a group showing beginning restrictions
4. **“Low outdoor mobility / unsatisfied with mobility“**
= the **“mobility poor“ = needing supportive intervention.**



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

Four Subgroups of Outdoor Mobility

	Subgroup 1 High Outdoor Mobility / High Mobility Satisfaction (n=887)	Subgroup 2 Medium Outd. Mobility / High Mobility Satisfaction (n=1.320)	Subgroup 3 Low Outdoor Mobility / Still satisfied with Mobility (n=792)	Subgroup 4 Low Outdoor Mobility / Unsatisfied with Mobility (n=951)
Socio-Demographics				
Age (M)	65.2	66.5	70.2	73.5
Gender (%)				
- male	48.2	48.5	38.7	31.4
- female	51.8	51.5	61.3	68.6
Household size (%)				
- lives alone	23.4	24.0	27.0	44.0
- lives with others	76.6	76.0	73.0	56.0
Satisfaction with finances (M)	7.5	6.9	6.7	5.7
Years of education (M)	11.8	10.0	8.8	8.0
Car use (%)				
- no car in household	20.3	33.9	46.7	68.5
- as passenger	12.4	17.0	25.7	20.4
- as driver	67.3	49.1	27.6	11.0



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

Four Subgroups of Outdoor Mobility

	Subgroup 1 High Outdoor Mobility / High Mobility Satisfaction (n=887)	Subgroup 2 Medium Outd. Mobility / High Mobility Satisfaction (n=1.320)	Subgroup 3 Low Outdoor Mobility / Still satisfied with Mobility (n=792)	Subgroup 4 Low Outdoor Mobility / Unsatisfied with Mobility (n=951)
Health-related Variables (M)				
Physical mobility	3.9	3.6	3.3	2.6
Satisfaction with health	7.4	6.9	6.4	4.8
Psychological Variables (M)				
Working memory	36.7	30.6	26.7	20.7
Control Beliefs - powerful others	2.1	2.2	2.5	2.9
Indoor-Outdoor-Type	5.2	4.9	4.3	3.5
Importance of being out	8.4	7.9	7.5	6.0



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

Four Subgroups of Outdoor Mobility

	Subgroup 1 High Outdoor Mobility / High Mobility Satisfaction (n=887)	Subgroup 2 Medium Outd. Mobility / High Mobility Satisfaction (n=1.320)	Subgroup 3 Low Outdoor Mobility / Still satisfied with Mobility (n=792)	Subgroup 4 Low Outdoor Mobility / Unsatisfied with Mobility (n=951)
Geographic Variables				
Region (%)				
- urban	65.7	49.3	41.2	39.9
- rural	34.3	50.7	58.8	60.1
Country (rank order of relative frequency)				
	1. Netherlands 2. Finland	1. Germany East 2. Italy	1. Germany East 2. Germany West	1. Hungary 2. Italy
	3. Germany West 4. Germany East 5. Italy 6. Hungary	3. Germany West 4. Hungary 5. Finland 6. Netherlands	3. Netherlands 4. Hungary 5. Italy 6. Finland	3. Germany West 4. Germany East 5. Netherlands 6. Finland



Data base:
The MOBILATE Project

Dr. Heidrun Mollenkopf

The present situation

**The present situation:
Older people are not a homogeneous group**

Example 2: Comparing **Impaired** and **Non-Impaired** older people

- Empirical basis: the „senta“ project
- An interdisciplinary study, conducted in Germany in 1999 (N=1.417)

Impaired persons are characterized by

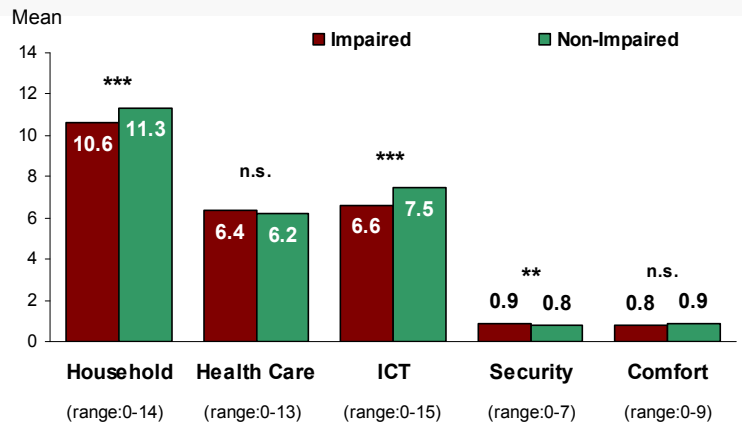
- **lower education, lower income, living singly, being female, and higher age.**

18

Data base: The "senta" Project

Dr. Heidrun Mollenkopf

Equipment with domain-specific devices

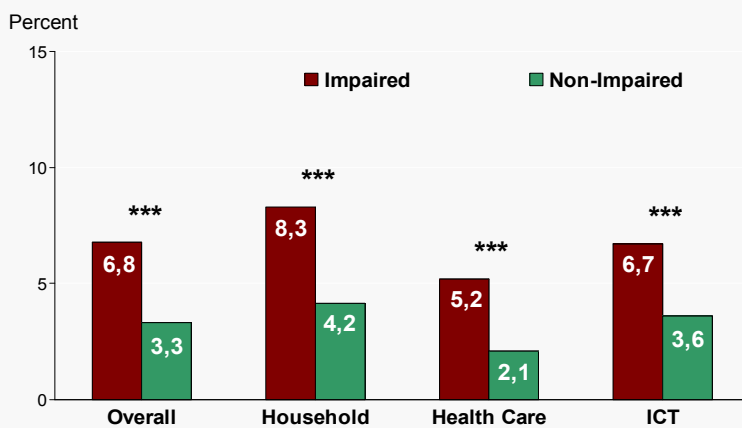


19

Data base: The "sentha" Project

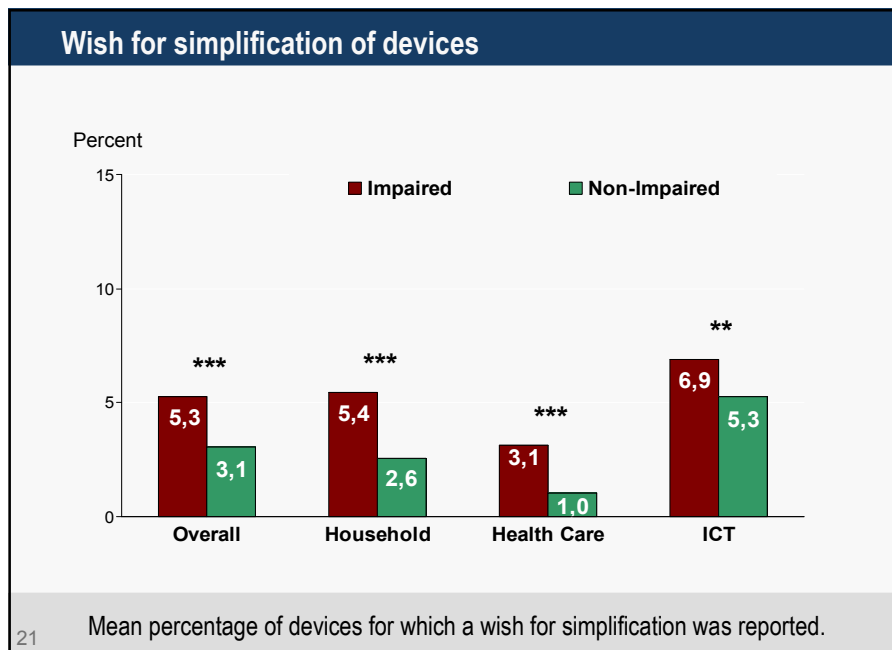
Dr. Heidrun Mollenkopf

Bad experiences with domain-specific devices



20

Mean percentage of devices for which bad experiences have been reported.



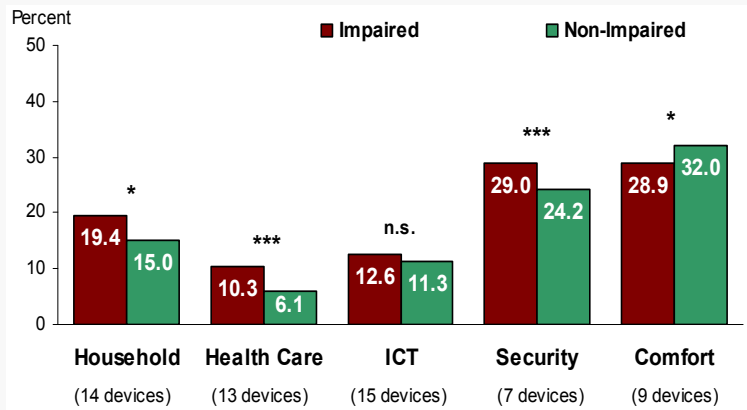
ICT – Problematic Devices

Device	Equipment	Bad experiences	Fears	Need for simplification of use
Video recorder	52	23,1	16,4	33,2
Computer	11	18,0	19,3	24,8
Modem, Internet access	5	17,5	12,7	17,5
Video camera, Camcorder	13	16,3	12,5	19,0
Mobile phone	8	13,7	7,7	18,8
Answering machine	20	11,9	5,4	8,7
Fax machine	7	11,8	7,5	11,8
TV set	99	11,2	5,7	8,9
Cordless phone	30	10,3	4,9	6,8
Teletext	63	8,1	5,5	10,3
Stereo system	60	7,8	5,6	9,5
CD player	47	6,5	3,5	5,9
Cable connection	92	6,1	3,5	4,1

The percentages refer to the respondents who are equipped with the respective devices.
All further devices asked for (telephone with cord, radio) were mentioned by less than 5% in all aspects.

No part of the contents or materials available on this presentation may be reproduced, licensed, sold, published, transmitted, modified, adapted, publicly displayed, broadcast (including storage in any medium by electronic means whether or not transiently for any purpose save as permitted herein) without the prior written permission of the author

Wish for more domain-specific devices



"If you don't already own this device, would you like to possess it?" (0=no/1=yes)

23

Equipment with and wish for devices - Correlations

		Number of available devices				
		HH	HC	ICT	SEC	COM
Wish for more devices	Household	.14 <.001 1256				
	Health Care		.04 n.s. 1398			
	Information/Communication			.24 <.001 1384		
	Security				-.16 <.001 1416	
	Comfort					-.13 <.001 1417

Correlations (Pearson's r); $p > |r|$ under H_0 ; Number of observations.

24

Equipment with and wish for devices - Conclusions

Impaired elders

- are interested in a better equipment of their homes, particularly with regards to household devices, health care and security.
- With respect to single items, there were almost no differences between the groups.
- For many strenuous household tasks there are up to now no technological solutions



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

25

Data base: The "sentha" Project

Dr. Heidrun Mollenkopf

New Intelligent Systems – the view of older people

Compared to Younger People ...

- older people have **higher expectations** of Smart Home
- older people more likely assume that Smart Home improves their everyday lives
- older people place greater emphasis on the expected increase in security
- older people stress health-related applications
- **older people tend to emphasize that the technology will be too complicated.**

26

BIS - Smart Home Survey 2000/01



ICT use among older people: the present situation



news release

Internet access and e-skills in the EU27 in 2007:

More than 40% of households have broadband internet access

Household internet access ranged from 19% in Bulgaria to 83% in the Netherlands

The Member States most often reporting high proportions of individuals performing different internet activities were **Denmark, Estonia, Luxembourg** and the **Netherlands**.

27

Dr. Heidrun Mollenkopf

ICT use among older people



news release

Promising figures, but ...

- Eurostat data include only individuals and households of persons aged 16 – 74 years
- With increasing age, ICT use decreases in all EU member states
- Older women, in particular, risk being excluded from ICT participation.

28

Dr. Heidrun Mollenkopf

ICT use among older people

Individuals who use the Internet at least once a week

	Men			Women		
	16 - 24	25 - 54	55 - 74	16 - 24	25 - 54	55 - 74
EU 27	79	61	31	77	55	19
NL	95	92	64	98	87	46
UK	83	76	50	83	68	33
FI	98	86	48	98	87	40
DE	90	78	44	87	69	26
FR	84	67	34	84	63	23
IT	61	45	17	57	34	6
RO	50	23	4	48	21	2

Future Trends – 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

Societal Trends

- **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 dementia.

- **New meanings of technology**

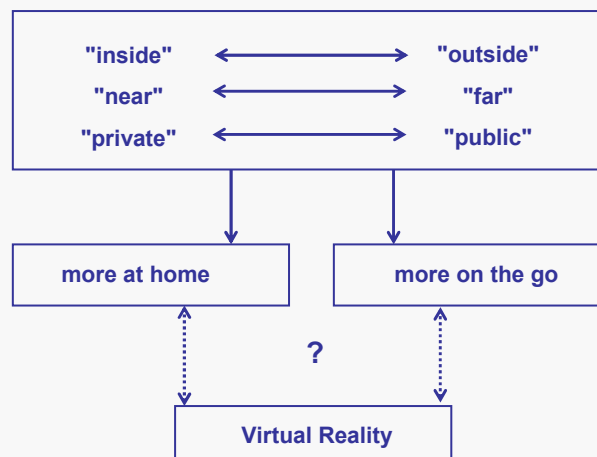
a means of compensation for a particular deficiency
=> part of the individual (and no longer a prosthesis).

31

Dr. Heidrun Mollenkopf

Future Societal Trends

Changes through new technologies



32

Dr. Heidrun Mollenkopf

Summary and Conclusions

- Until now, the younger, healthier, better educated and wealthier older people profit most from technological developments.
- If we believe that older men and women should equally be able to profit from the productive potential of technology, devices and systems have to be optimized in a way that they
 - do not create new thresholds and barriers by inadequate design
 - can be purchased also by older people with limited spending power to avoid social exclusion.

Summary and Conclusions



**Challenge for designers, producers,
service providers, and
social policy.**

Thank you for your attention!

Heidrun.Mollenkopf@web.de

Heidrun.Mollenkopf@psychologie.uni-heidelberg.de