European SeniorWatch Observatory and Inventory
A market study about the specific IST needs of older and disabled people to guide industry, RTD and policy

www.seniorwatch.de

IST–1999-29086

Data from the SeniorWatch surveys

Handout for the ISTC Working Party Meeting on Persons with Special Needs

Brussels, 15th February 2002

Version:	1.0 by empirica
Preparation Date:	2001-02-14
Contract Start Date:	1st of October 2000
Duration:	21 Month
Project Co-ordinator:	*empirica, Bonn*
Partners:	WRC, Dublin
	STAKES, Helsinki
	EURAG, Brussels
	NPOE, Utrecht

Project funded by the European Community under the "Information Society Technology" Programme (1998-2002)

Contents

Readers of this document should note that the analysis of SeniorWatch data is at an early stage. Further reports will be published at a later date. In no case can EC Services be considered responsible for any errors of content.

Preliminary findings from the SeniorWatch project

by
Lutz Kubitschke; Tobias Hüsing; Veli N. Stroetmann; and Karl A. Stroetmann

empirica

Gesellschaft für Kommunikations- und Technologieforschung mbH
Bonn / Germany
www.seniorwatch.de

ISTC Working Party Meeting,Brussels, 15th February, 2002

empirica

The project in a nutshell

- **a market study about the specific Information Society Technology needs of older people**
- **funded within the Information Society Technology Programme (1998-2002)**
- **information gathering through EU-wide surveys, country reports, case studies, technology watch**
- **analyses of EU situation and trends, global perspectives, facilitators and constraints, strategic recommendations**

empirica

senior watch

Market opportunities

- 40% of the EU 50+ population have ever used a PC, i.e. overall 49 m people with hands-on experience (20% of those who are in their 70ies and 10% of the 80+)
- 61 % have used or are interested in Internet applications: overall 74 m potential customers for online services

but independent whether user or non-user

- about 50% (59 m) see their interests in adequate design not being considered by IST manufacturers
- more than 70% (88 m) perceive these technologies as being nearly always connected with young people in the media

empirica

senior watch

Future demand for mainstream IST

13% of those who have no computer at home are likely to have one within the next one or two years; i.e. 10 m potential new customers (of which over 6 m are functionally restricted)

14% of those who have never used the Internet are likely to use it within the next one or two years, i.e. 12 m potential new customers (of which nearly 8 m are functionally restricted)

20% of those who have no mobile phone are likely to have one within the next one or two years; i.e. 12 m potential new customers (of which nearly 8 m are functionally restricted)

empirica senior watch

Societal challenges

- IST involvement is related to socio-demographic variables (education/social status,income, age) but also to life style and functional restrictions
- 31% (38 m) of the EU 50+ population belong to the “want-nots” (even 18% in the age range between 50 and 60)
- 21% (26 m) are considerably functionally restricted in using IST (even in the age range between 50 and 60 years 17%)
- clear north/south gradient regarding IST involvement (e.g. 6.1 devices/applications are used on average in Sweden and 2.8 in Greece)

empirica senior watch

Care challenges

- IST is widely used by care providers but mostly in an administrative context (e.g. PC: 97%, web site: 52%, mobile phone: 82%)
- service providers see considerable potential of IST (e.g. better quality of service: 74%, extension of current service: 69%, more independent clients: 68%)

but

- 84% anticipate non-acceptance of IST among clients
- 70% have poor intra-organisational knowledge about IST
- 54% do not equip their staff with mobile devices due to costs

empirica

senior watch

Technology challenges

- IST intelligence becomes integrated into networked devices supporting all activities of daily living (ubiquitous networked computer intelligence)
- networked intelligence accessible and usable by a variety of users and in various usage contexts (application adjustable to context and diversity of use)
- access to general purpose applications (e.g. eBusiness), eHealth and eCare via devices/services widely in use like TV, Teletext, cable/digital TV, telephone/mobile phones/voice access
- software/user interface adjustable to skill level and experience of user

empirica

senior watch

Some conclusions I

- large (and growing) market volume within the 50+ population presently not adequately addressed by manufacturers
- prevalence of functional restrictions (even within the younger cohorts) requires ubiquitous design-for-all solutions
- the problem of individualisation and adaptability of IST becomes increasingly relevant for the population at large as usage contexts diversify (e.g. accessing the Internet while driving a car)

empirica

senior watch

Some conclusions II

- IST involvement not just a matter of age cohorts, the group of "want-nots" will not disappear
- potential of IST for care services generally recognised at management level, but major barriers are: lack of intra-organisational knowledge, IST skills and cost/benefit validation
- "older people and IT" is a policy issue in the Member States but concrete measures initiated seem to be not guided by a comprehensive strategy

empirica

senior watch

Open questions

- how to convince IST manufacturers to better address the market (e.g. market surveys, legislation/regulation, standardisation) ?
- how to cater for a broad range of usage contexts/user requirements at application/device level (e.g. technologies, design concepts/tools, needs/requirement analysis) ?
- how to prevent a "digital divide" in an IST-based every-day environment (e.g. regulation, demonstration, awareness, skills, incentives) ?

Older Citizens (50+) and European markets for ICT products and services

Representative data from the SeniorWatch user surveys

Chart Report

Lutz Kubitschke, Tobias Hüsing, Bertram Stähler, Karl A. Stroetmann

empirica Gesellschaft für Kommunikations- und Technologieforschung mbH, Bonn

Table of contents

The user surveys

- across all 15 European Union Member States
- computer-assisted telephone interviews - CATI
- geographically and socio-demographically stratified random sampling
- summer of 2001
- Older Population Survey (OPS) 9,661 respondents aged 50+
- Decision Maker Survey (DMS): 512 decision makers from home care provider organisations

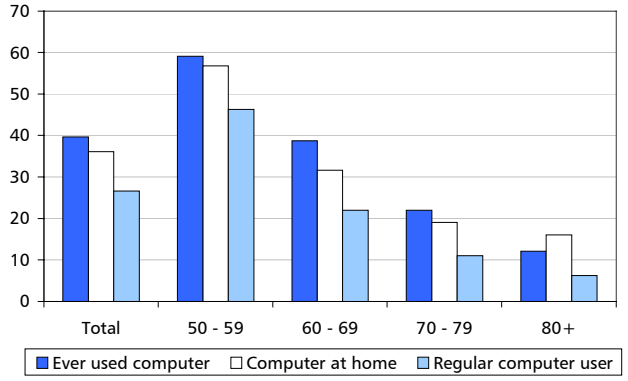
Market opportunities

Access to and usage of general purpose ICT applications

Access:		Usage:	
Standard TV	98%	Teletext (on TV)	45%
Cable TV	30%		
Digital TV	13%		
Mobile Phone	48%	Mobile Phone	42%
Computer	36%	Computer	27%
Notebook/Laptop	5%		
Internet	22%	Internet	17%

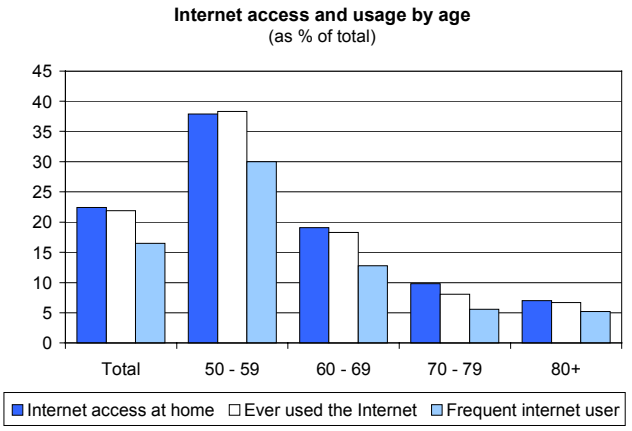
Computers - quite common in seniors' homes

Computer access and usage by age
(as % of total)



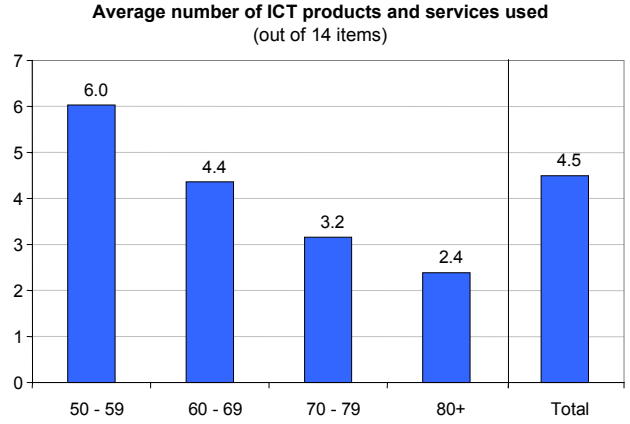
- 44 m (one out of three) older people can access to a computer at home
- One fourth (33 m people) are regular computer users
- Computer involvement decreases with age
- However, cohort effects more plausible than life-cycle effects

Internet access and usage - European seniors entering the web



- Internet has only begun to enter the senior market
- 16% of the 50+ population are frequently using the internet
- Usage is strongly concentrated in the 50-59 cohort
- For the old aged - esp. 70+ - internet usage is still very low

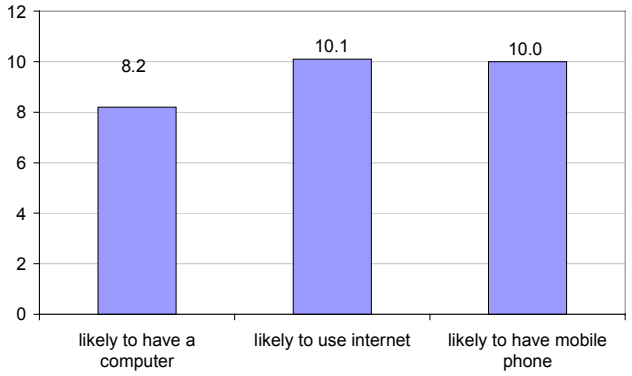
ICT usage by age



- The average number of ICT products accessible and/or used, e.g. TV, DVD, fax, computers and the internet (maximum total of 14) is also closely related to age

Strong market growth - about 10 - 13 m new customers within 2 years

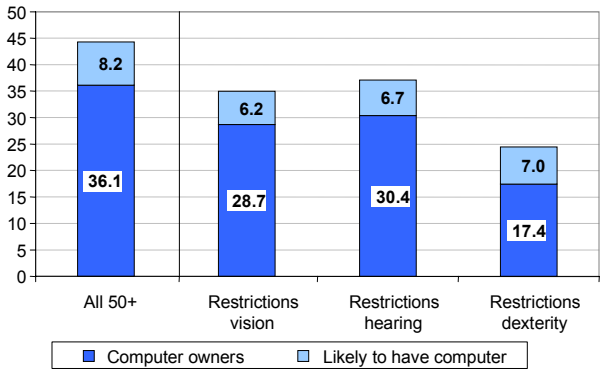
Plans to use within the next one or two years
(as % of total older population)



- Markets for computers, internet and mobile phones will grow by 10 to 13 m customers each until 2003
- Of those likely to have a **computer**, 18% are suffering from a *severe restriction* as regards vision, hearing or dexterity (32% only report no restrictions at all).
- Also 16% of those likely to use **internet** (38% no restrictions at all)
- And 22% of those likely to have a **mobile phone** (36% no restrictions at all)

Computer demand and market growth among people with functional restrictions

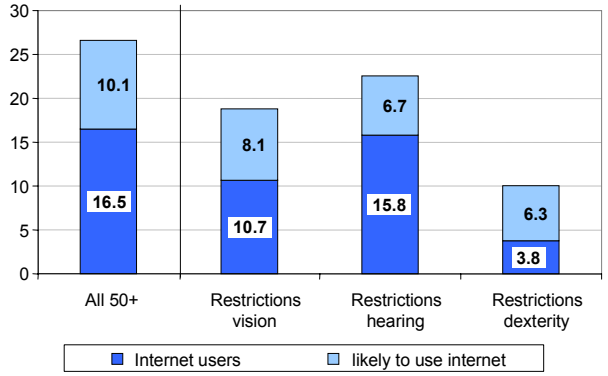
Ownership of and plans to purchase computers within the next one or two years
(as % of total older population)



- The market for computer sales to older citizens will grow by about 22% in 2 years
- User friendliness must be improved: particularly dexterity disabilities restrict computer access

Internet demand and market growth among people with functional restrictions

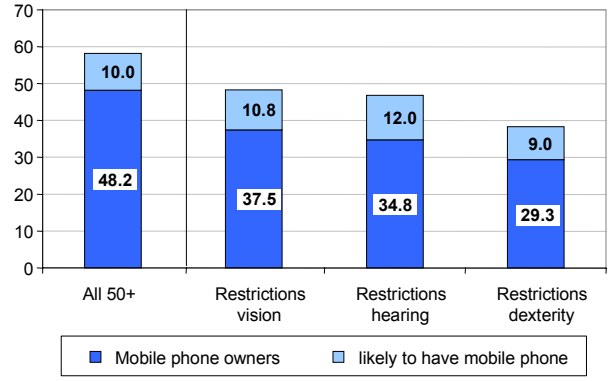
Use of and plans to use internet within the next one or two years
(as % of total older population)



- Internet market heading for 60 % growth within 2 years
- Particularly vision and dexterity disabilities need attention by internet services

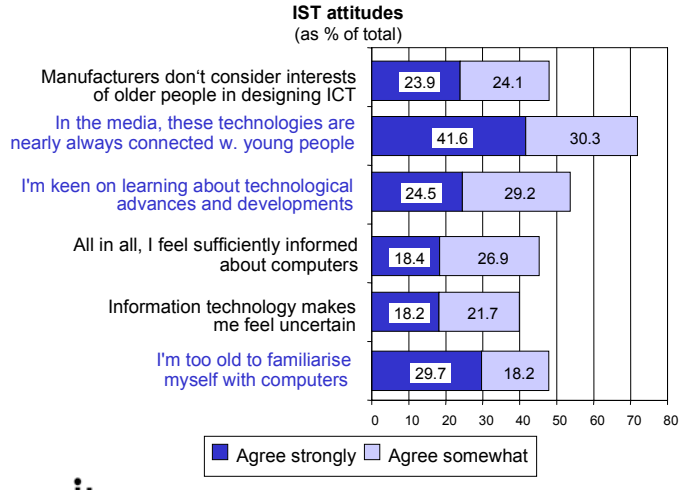
Mobile phone demand and market growth among people with functional restrictions

Use of and plans to have mobile phone within the next one or two years
(as % of total older population)



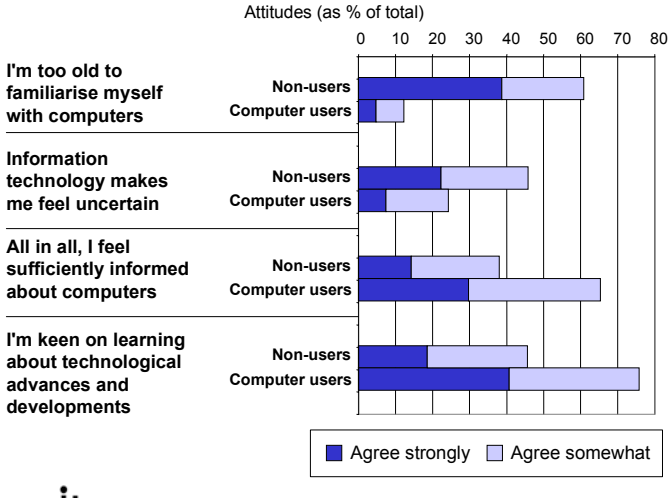
- Mobile phone market has quickly become mature: only 20% growth expected on a high penetration level

Attitudes towards ICT - Many fear to be excluded from the Information Society



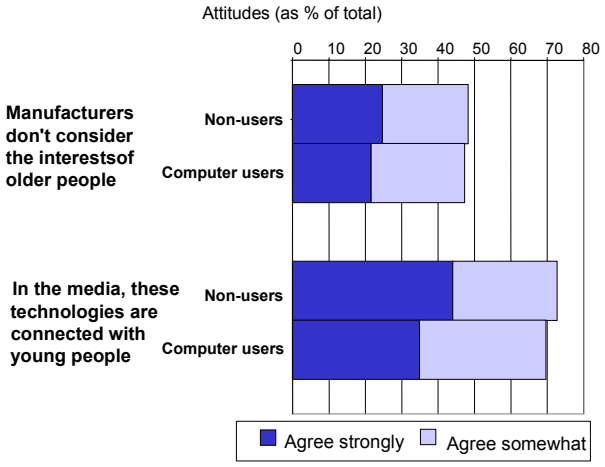
- Older people feel unrecognised as target group (70 % say ICT is only connected with younger people)
- 48% of older population blame manufacturers not to incorporate their needs in product characteristics
- More than half are keen on following technological developments
- One half each feel or do not feel too old to familiarise with computer technology

Attitudes towards ICT depend on ICT experience …



- Strong dependence of ICT attitudes on computer usage
- 60% of non-users feel to old to avail themselves of computers
- Less than 40% of non-users feel sufficiently informed
- Users are quite satisfied with their information (2/3 of users, 38% of non-users)
- 3/4 of users are keen on learning about technological developments, but also 45% of non-users

... however, this is not always the case



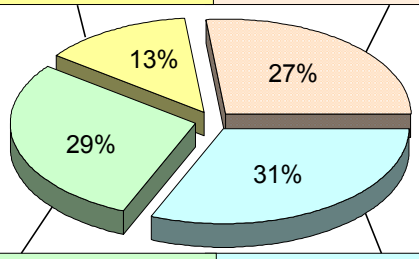
- Complaints about ICT not being adapted to older people's needs are prevailing as much among users as among non-users (Both almost 50%, 30% disagree, 20% no opinion)
- The same holds true for the complaint about public ignorance of older people as technology users (70% agreement)

Societal challenges

ICT involvement - Older population covers broad spectrum

The old age beginners
- **Computer users**
- **less skills** / using computers less often

The experienced frontrunners
- **Computer users**
- **Advanced** skills or **frequently** using computers (> once a week)



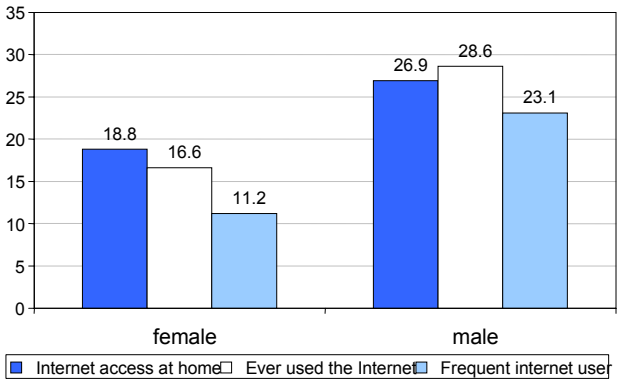
The technologically open-minded
- Non-users, but
- **Keen on learning** or wishing to improve computer skills

The digitally challenged
- Non-users
- Neither keen on learning nor wishing to improve computer skills

- ICT involvement is a compound indicator which takes account of attitudes, skills and usage data
- Rationale: Users are different as to their usage intensity, non-users differ re their openness to become involved.
- Older population covers the whole variety of ICT involvement
- About one third are heavily at risk of being left behind

Gender Gap - Example Internet

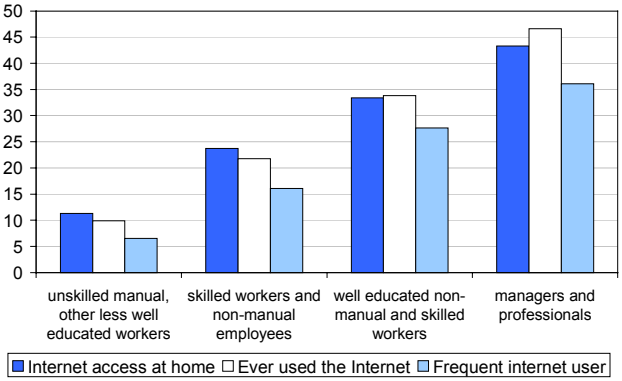
Internet access and usage by gender
(as % of total)



- The gender gap is still considerable: Men are about twice as likely to be internet users as women
- 23% of male elderly are frequent internet users, 11% of women
- Access (in households) is not as distinctive as actual usage
- Internet experience - among other things - reflects the gender specific educational attainment and labour participation rates
- The gender effect strongly decreases when controlling for age, income and educational attainment

Usage hinges on educational and occupational opportunities

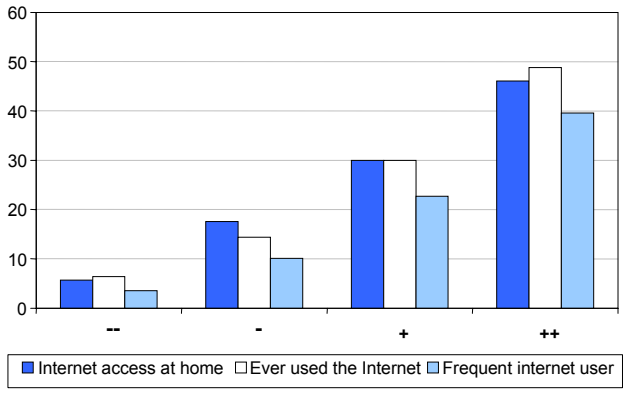
Internet access and usage by social grade (SES)
(as % of total)



- Access and usage follows societal stratification patterns
- Upper middle class senior citizens hardly differ from the population average
- Information highway has hardly reached less well educated households
- Socio economic status (SES) is a compound indicator, ascribed to a household and derived from the main income earner's educational attainment and professional status

Income a major factor of internet usage

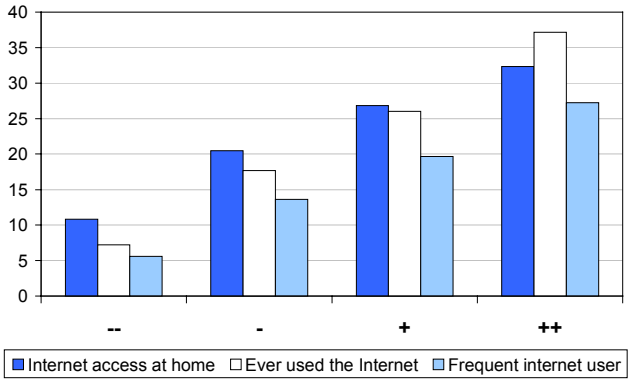
Internet access and usage by income level
(as % of total)



- Uptake in highest income class is approaching 50%
- Low income persons run the risk of exclusion from the Information Society
- Income is measured country-specific, i.e., relative to respective national income distribution
- Income is closely related to SES ...
- ... but remains an independent predictor when controlling for age, SES and education

Internet involvement also a matter of active lifestyles

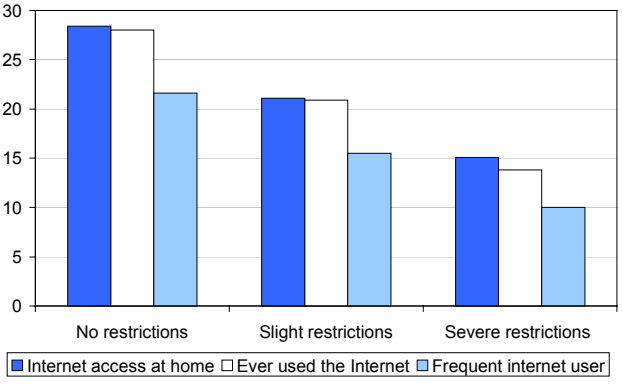
Internet access and usage by Activity / Lifestyle Orientation
(as % of total)



- Activity / lifestyle orientation is a compound indicator derived from time spending patterns and subjective valuation of several activities in one's life
- Activity oriented lifestyles are quite strongly associated with internet involvement: generic activity level determines internet usage
- When controlling for age and income the effect remains significant

Impairment restricts internet activities

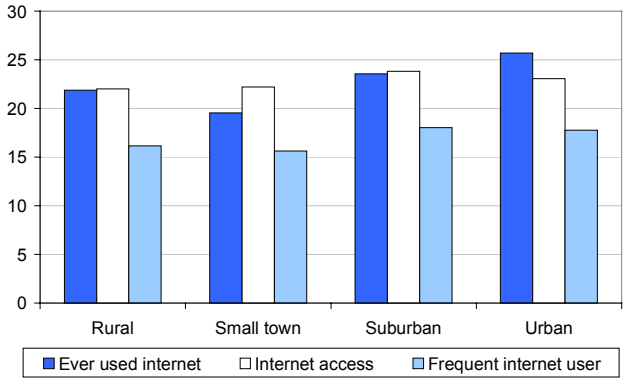
Internet access and usage by impairment
(as % of total)



- Impairment is a compound indicator of physical restrictions (vision, hearing, and tactile/motoric difficulties)
- People suffering from severe impairments are only half to two thirds as likely to avail themselves of the internet
- Impairment is associated with age
- The effect of impairment becomes quite small when controlling for age and income (yet remains significant)

Minor urban-rural gradient re internet usage

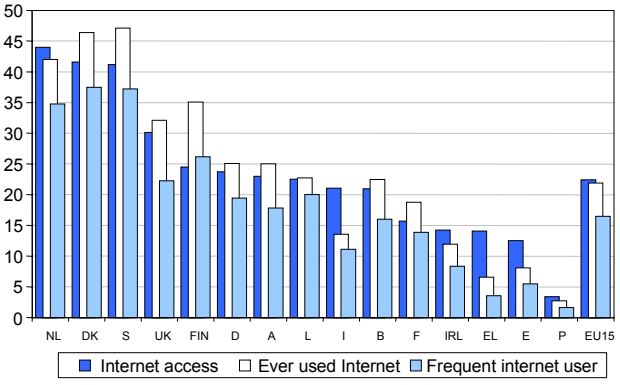
Internet usage by type of area



- The regional population density has almost no impact on internet usage

Strong EU north-south gradient in internet usage and access

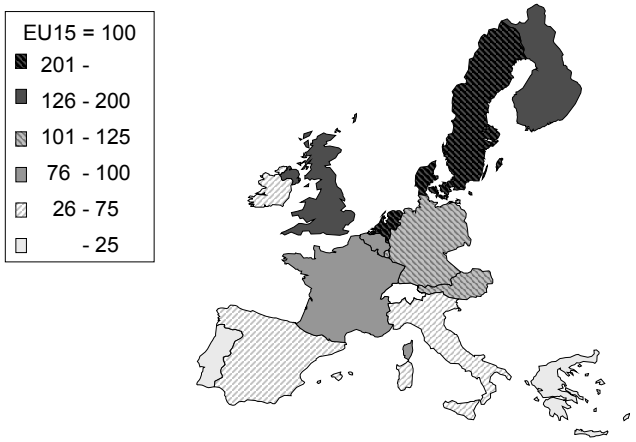
Internet access and usage by Member State
(as % of total)



- Internet **access** benchmark is the Netherlands, while Sweden and Denmark set the **usage** benchmark
- Southern Europe and Ireland are challenged to catch up

North South Gradient re internet usage

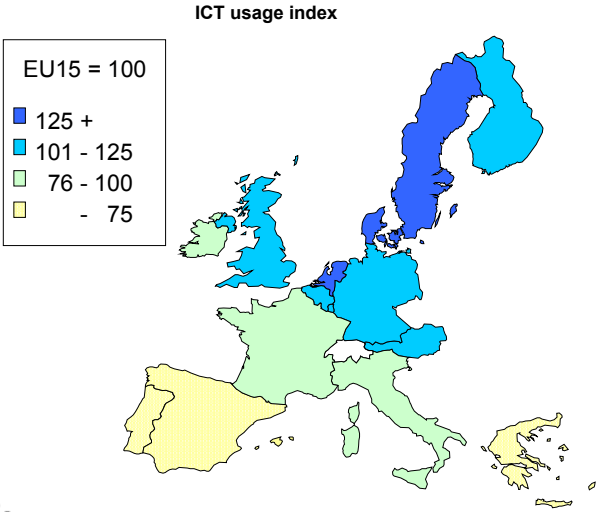
Regular internet users



- Shares of internet users in the older population vary considerably across Europe

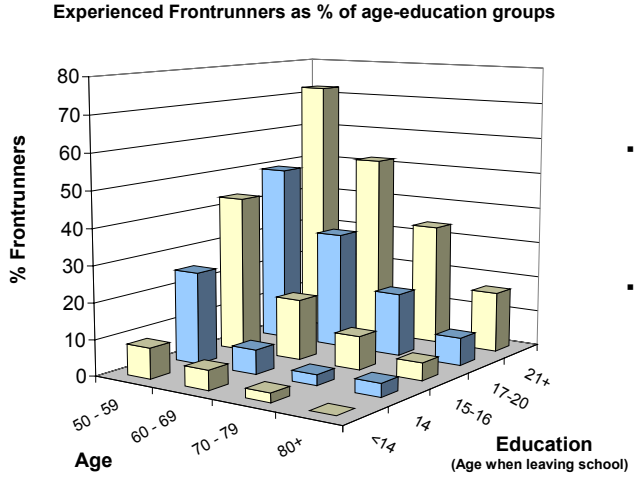
North South Gradient re generic ICT usage

ICT usage index



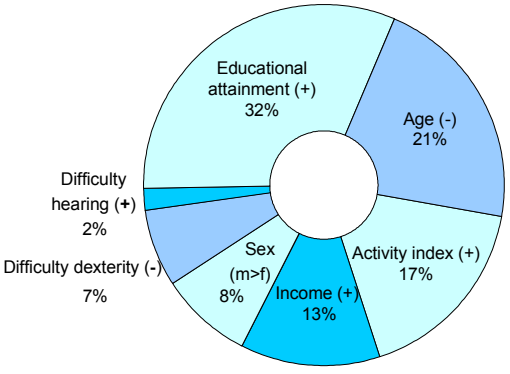
- The average number of ICT products and services out of 14 items does not vary as much across Europe

ICT involvement as a matter of age and education



- 72% of those aged 50-59 and 21+ years old when finishing their education (i.e. university degree and equivalent) are experienced frontrunners
- But none of those aged 80+ and leaving school <14 years old are experienced frontrunners

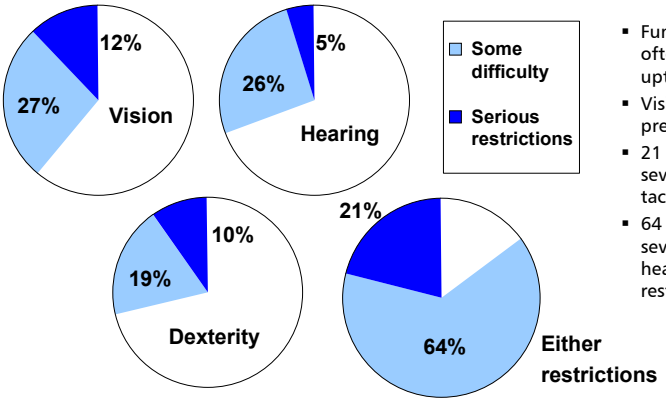
ICT involvement a matter of different factors - Determinants by comparison



- Educational attainment is the dominant variable in explaining IST involvement
- Age and income are also strongly discriminating factors
- Activity orientation represents the very significant lifestyle part of IST take-up
- Gender differences are still significant but not as relevant as other demographic variables
- The remaining explanatory power of impairment is only small: Having hearing troubles makes involvement more, dexterity less likely. Vision is not relevant in this model.

Functional restrictions - a challenge for user-friendly and assistive technologies

Prevalence of functional restrictions
as % of older population

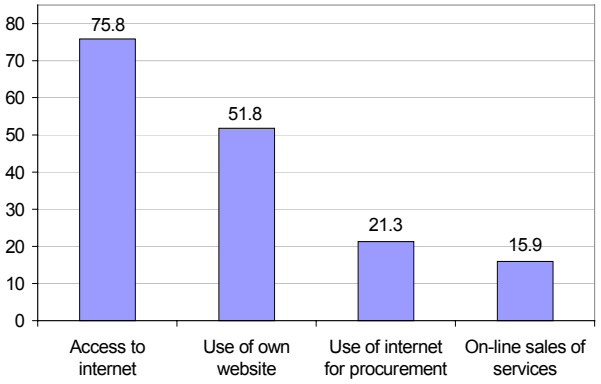


- Functional restrictions often hinder full scale IST uptake
- Vision restrictions are most prevalent
- 21 % suffer from either severe vision, hearing or tactile restrictions
- 64 % suffer from either severe or light vision, hearing or tactile restrictions

Care challenges

Usage in care sector - internet

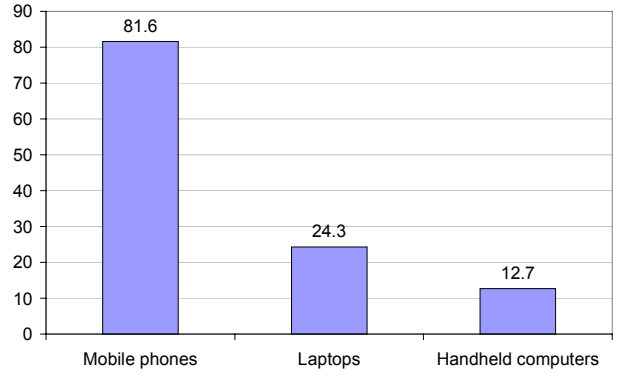
Actual usage of internet by care service providers
as % of care establishments (weighted according to European market share)



- Internet access is becoming standard in care establishments (presently 76%; about 88% in 2 years)
- More than 50% have set up their own web-site
- E-business opportunities are used only by a small proportion of care services: 21% buy and 16% sell on-line

Usage in care sector - devices used by mobile staff

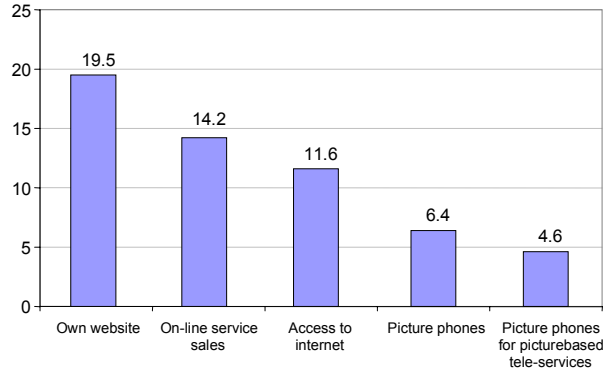
Actual usage of IST by mobile care staff
as % of care establishments (weighted according to European market share)



- Mobile phones are used by the vast majority of care services for their mobie staff (82%)
- Intelligent devices like laptops (24%) and handheld computers (13%) are applied by few enterprises only

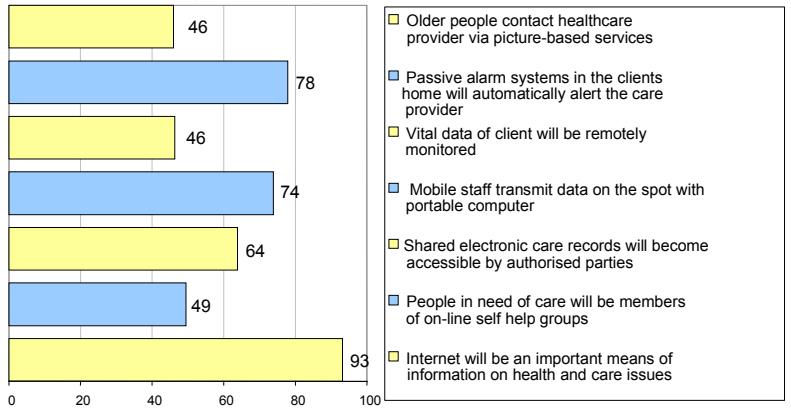
Short term demand for IST applications in the care sector - The decision makers' estimats

Implementation planned within two years time
% of decision makers (weighted according to European market share)



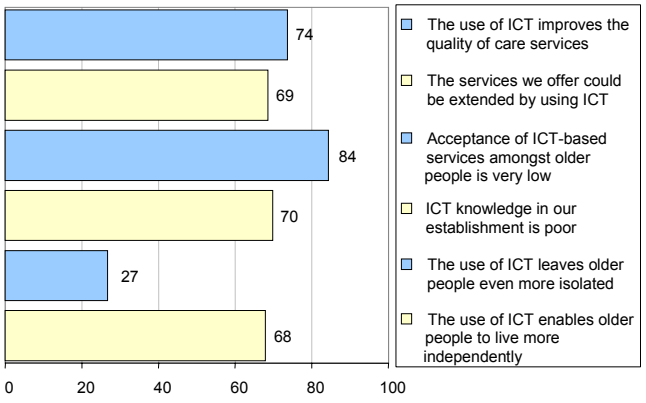
Future trends in care sector - The decision makers' views

Future trends in care sector
% of decision makers stating "likely to be common within five to ten years"
(weighted according to market share)



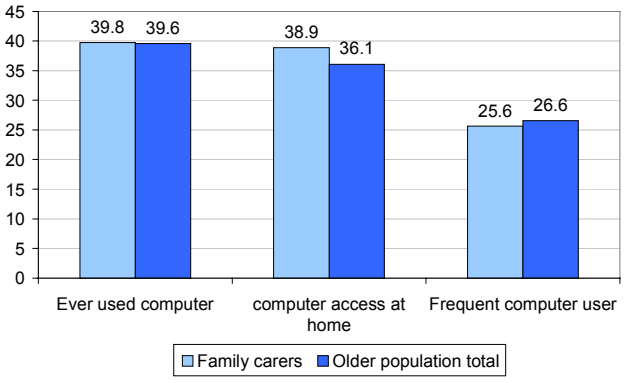
Barriers and facilitators of uptake in the care sector - The decision makers' opinions

Agreement with statements about ICT in care sector
as % of decision makers (weighted according to market share)



Family carers and IST

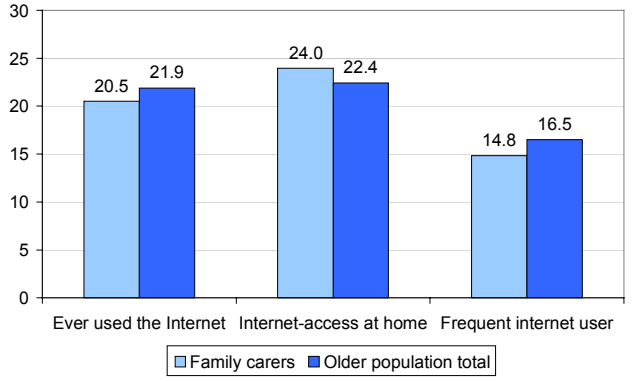
Computer involvement of family carers compared to the older population in general
as % family carers / % of total older population



- There exists no structural difference between informal carers and the older population in general

Family carers and IST

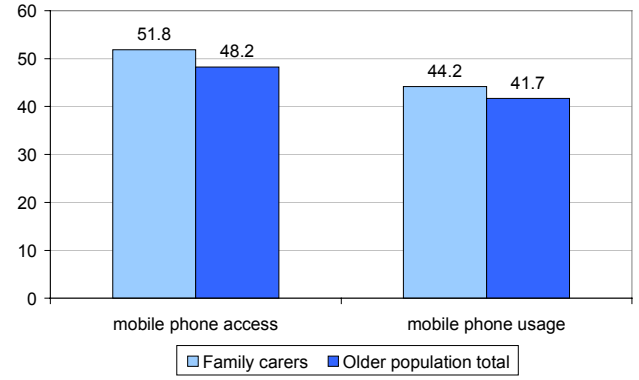
Internet involvement of family carers compared to the older population in general
as % family carers / total older population



- Again, also the use of the internet is almost identical for family carers and the older population in general

Family carers and IST

Mobile phone involvement of family carers compared to whole older population
as % family carers / total older population



- Only with respect to mobile phones, family carers are slightly more likely to have access and to use them
- In Summary: The data presented on the older population in general apply to family carers as well.

Further information about this study and related research is available at

http://www.seniorwatch.de

http://www.empirica.com

empirica Gesellschaft für Kommunikations- und Technologieforschung mbH
Oxfordstr. 2
D-53111 Bonn
Tel.: (+49) 2 28 - 9 85 30-0
Fax: (+49) 2 28 - 9 85 30 -12
E-Mail: info@empirica.com
http://www.empirica.com