

Innovation in online data collection for scientific research: the Dutch MESS project

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CentERdata
Institute for data collection and research



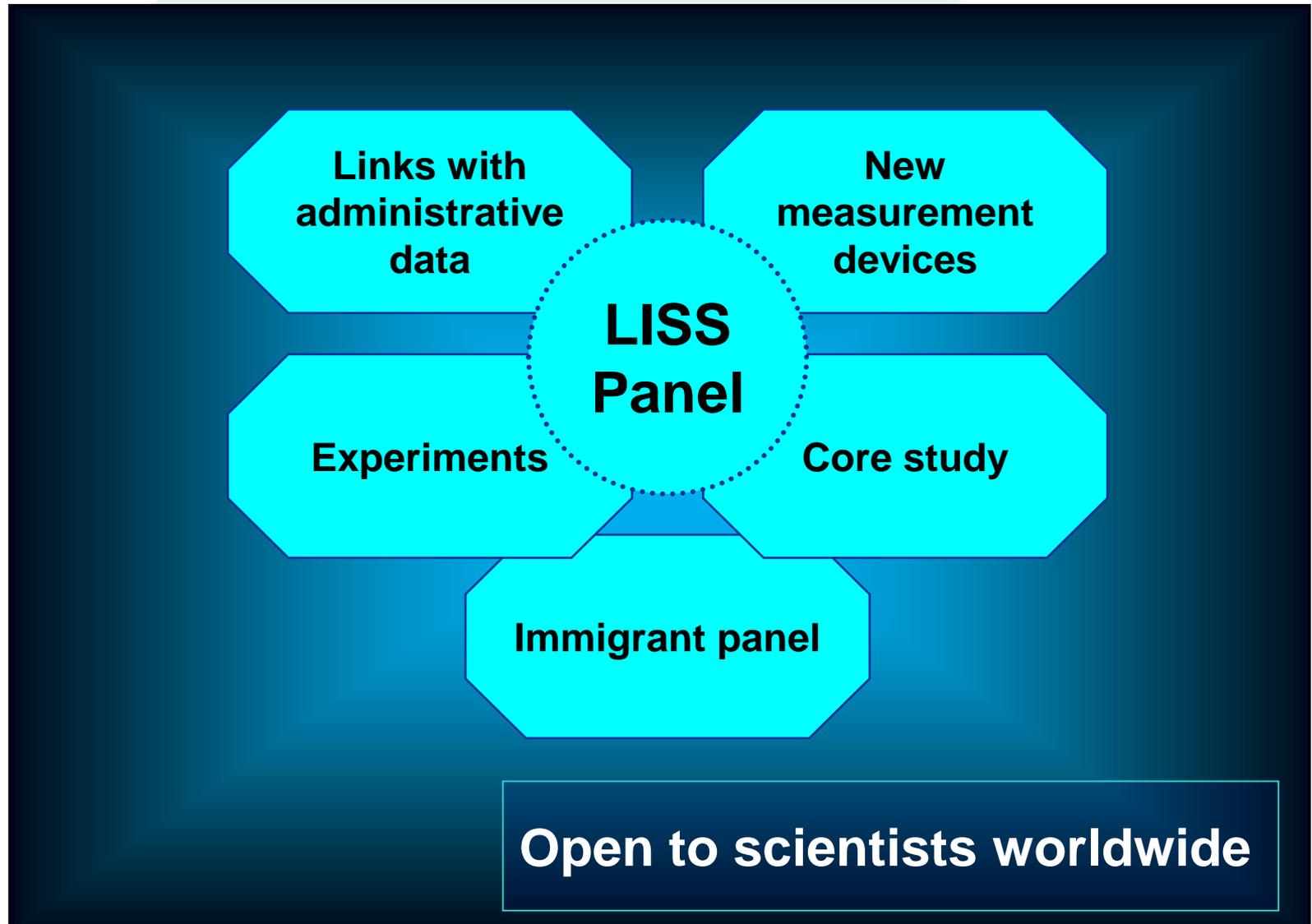
CentERdata

An independent non-profit institute housed at the campus of Tilburg University (The Netherlands)

Three main activities:

- data collection / online survey research
- quantitative research, policy analysis and model development
- software solutions (tailor-made software for data collection and dissemination)

MESS Project: a highly advanced research infrastructure for the social sciences





Central element MESS project: LISS panel

- Online panel of 4,500 households
 - 7,000 individuals (≥ 16 years)
- Questionnaires each month, 30 min.
- Incentive 15 euro an hour (average)
- For scientific use, at no cost



Why use online panels for scientific research?



Disadvantages online surveys

- Noncoverage:
 - Persons without Internet are usually excluded
- No probability sample:
 - Visitors of specific websites
 - Self-selection (interested, strong opinions, specific goal)



LISS panel

- Online interviews as method, but:
- Probability sample drawn from address sampling frame of Statistics Netherlands
- Includes households without Internet access (less than 15%): CentERdata provides equipment
- Contacted by letter, telephone or visit



?

Households without Internet



simPC



Small and silent

Only the most frequently used functions

Automatic maintenance, safety

Simple operation and readable screens

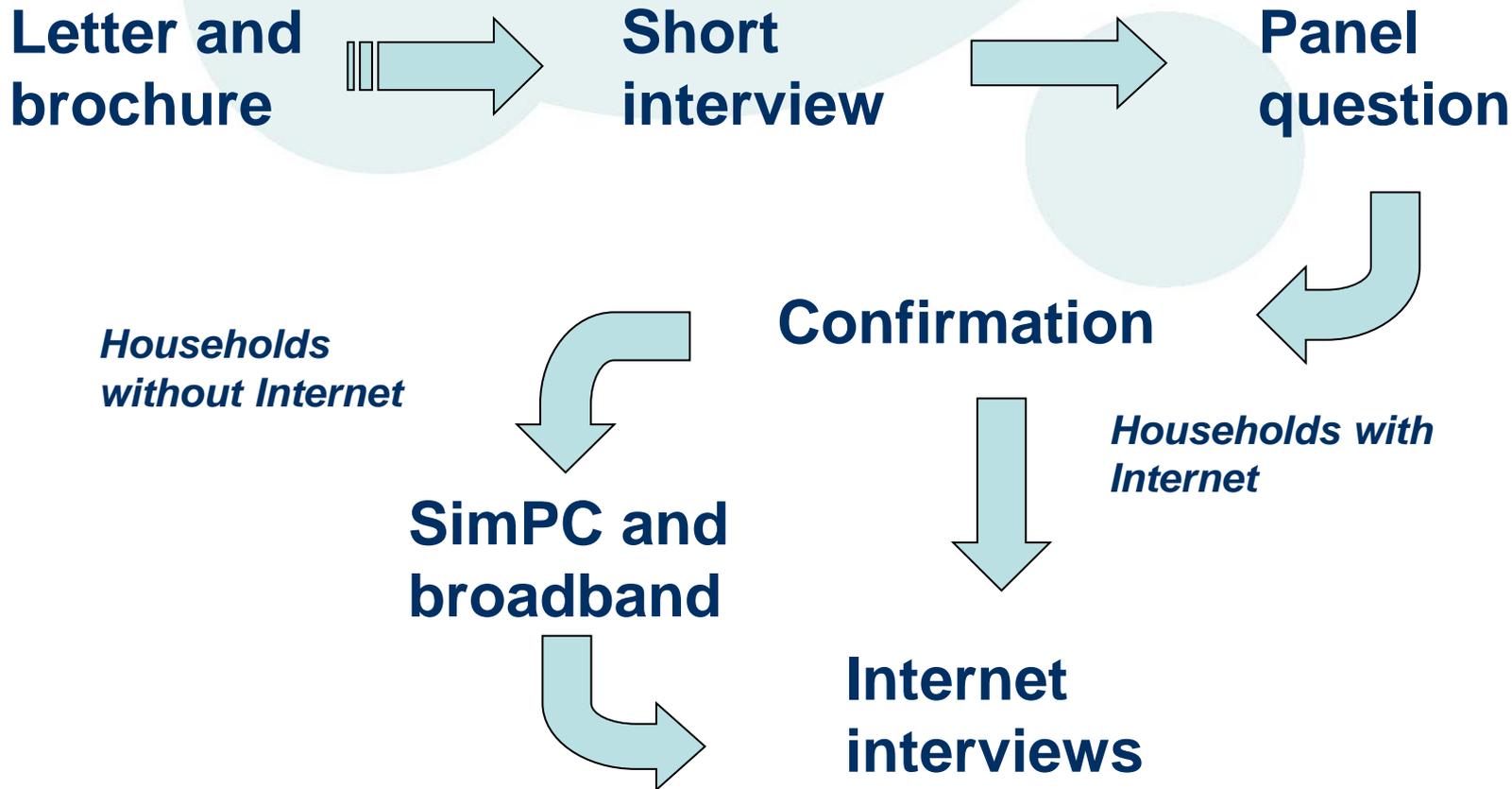
Installation and support



Recruitment of LISS panel



Recruitment





Response

Letter and
brochure

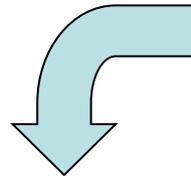


Short
interview

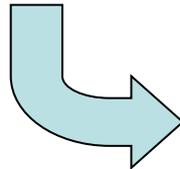


Panel
question

**Primary
response
target: 80%**



SimPC and
broadband

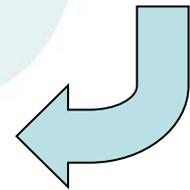


Confirmation



Internet
interviews

**Secondary
response
target: 60%**



*Households with
Internet*

**Tertiary
response
target: 53%**



Recruitment experiment

Experimental design

		CATI		CAPI		N
		Special letter	Standard letter	Special letter	Standard letter	
Prepaid incentive	Introduce panel in letter	0 euro	10 euro			200
	Introduce panel after interview		20 euro	50 euro		300
Promised incentive	Introduce panel in letter			0 euro	10 euro	400
	Introduce panel after interview	50 euro			20 euro	300
N		200	200	400	400	1200



Effect of incentives

- incentives increase response rates
 - effect is large from 0 to 10 euro (increase of 15%)
 - effect is not significant from 10 to 20, 20 to 50 euro (about 3%)
- prepaid works better than promised



Effect of information

- no effect of letter content
- no effect of timing panel introduction
- effect of seeing/reading brochure



Set up main recruitment

- Combination CATI – CAPI, follow up CAPI
- Prepaid 10 euro incentive
- Promised extra 10 euro incentive for starting
- Attention to design letter and brochure



Response in recruitment

Recruitment stage (households)	% of total gross sample
	LISS panel
Reached	90
Completed interview or central questions	75
Willing to participate in panel	63
Registered as panel member	48
Total gross sample*	9844

***excluding not usable addresses (308)**



Non-response patterns

Similar to those of other leading scientific panels

Superior to commercial access and volunteer panels:

- no coverage problems
- no self-selection



Attention for difficult groups

- Correction by refreshment sample in 2009 (stratified) and 2011 (random), in close collaboration with Statistics Netherlands
- Separate immigrant panel in 2011 (with Cross-cultural Psychology, Tilburg University and Statistics Netherlands)



Use of the LISS panel



Use of infrastructure

1. Collection of *new* data; proposals can be submitted throughout the year

→ Budget available for academic researchers to use the LISS panel

2. Use of *existing* data (free of charge)

→ Available data:

- longitudinal core study
- proposed studies



1. Collection of new data

- **Who** can use the LISS panel:
every researcher who wants to collect
data for scientific, policy or societal
relevant research

Scientific research:

Academic researchers, irrespective of
nationality, can use the LISS panel **at no
cost**

- Proposals can be submitted throughout
the year



Use of a subsample

- Effects of illness babies in first year on labour participation parents:
 - Pregnant women, follow 3 years!
- Effects of the economic crisis on household portfolio choice:
 - Panel members who own stocks
- Random subsample or experimental groups: different conditions



Proposals: Summary (April 2013)

<i>Decision Board of Overseers</i>	Count
Undecided (in review or revision)	24
Accepted	121
Rejected	25
Total	170



Overview of affiliations

Proposals LISS panel

The Netherlands

Eindhoven University of Technology
 Erasmus MC, Rotterdam
 Erasmus University Rotterdam
 Free University, Amsterdam
 Groningen University
 Leiden University
 Maastricht University
 Open Universiteit
 Radboud University Nijmegen
 Tilburg University
 University Medical Center Utrecht
 University of Amsterdam
 University of Twente
 Utrecht University
 VU University MC
 Wageningen University

ACCR (Free University Amsterdam)
 ASCoR (University of Amsterdam)
 Dutch Central Bank
 Netherlands Bureau for Economic Policy Analysis (CPB)
 Netherlands Institute for Social Research (SCP)
 Netherlands Institute for the Study of Crime and Law Enforcement
 Netherlands Interdisciplinary Demographic Institute (NIDI)
 Netherlands Organization for Applied Scientific Research (TNO)
 NHTV Breda University of Applied Sciences
 Rutgers Nisso Groep
 Statistics Netherlands
 Tranzo

Australia

Canada

Israel

New Zealand

USA

Arizona State University
 Bar-Ilan University
 Carnegie Mellon University
 Connecticut College
 Duke University
 Emory University
 Federal Reserve Bank of New York
 Griffith University
 Harvard University
 Hebrew University of Jerusalem
 Laval University
 Michigan State University
 Michigan Technological University
 Neuroscience Research Australia
 New York University
 Northeastern University
 Pew Research Center
 Saint Leo University
 Stanford University

Stony Brook University
 Swinburne University of Technology
 Tel Aviv University
 Université du Québec à Montréal
 University of Calgary
 University of California
 University of Florida
 University of Maryland
 University of Michigan
 University of Waterloo
 University of Wellington
 Washington State University
 World Values Survey Association

Basel University
 City University London
 ECARES
 European University Institute
 GESIS
 Ghent University
 Institute for Employment Research (IAB)
 KU Leuven
 Max Planck Institute for Human Development
 National Center for Scientific Research (France)
 Norwegian University of Science and Technology
 Nuffield College
 Ulm University
 University College Dublin
 University College London
 University of Bath
 University of Bristol
 University of Copenhagen
 University of Duisburg
 University of Essex
 University of Florence
 University of Heidelberg

Europe

University of Lausanne
 University of Limerick
 University of Louvain
 University of Mannheim
 University of Padua
 University of Southampton
 University of Southern Denmark
 University of Stirling
 University of Vienna
 University of Zurich
 Universitat Pompeu Fabra



2. Use of existing data

- **Who** can use the LISS data:
every researcher who wants to use data for scientific, policy or societal relevant research
- Use of data is free of charge (unless data are used for research funded by means of external sources)
- Available data:
 - longitudinal core study
 - proposed studies



Longitudinal core study

Questions were designed in close collaboration with experts in the relevant fields

Core study borrows from various national and international surveys

Topics: Household and family, Economic situation and housing, Work and schooling, Social integration and leisure, Health, Personality, Religion and ethnicity, Politics and values

LISS wave 6: Nov 2012 to June 2013



LISS data

- Disseminated through website / data archive: <http://www.lissdata.nl>
- Database is based on an internationally used specification for describing social science data (DDI 3)
- Recent new feature: shopping cart
- Exchangeable with data archives; source code of data dissemination system available free of charge



LISS data

- Demo...

<http://www.lissdata.nl>

Innovation in data collection

- Smartphones (Time Use, with the Netherlands Institute for Social Research; Mobility, with Twente University)



- Accelerometers (international collaboration)

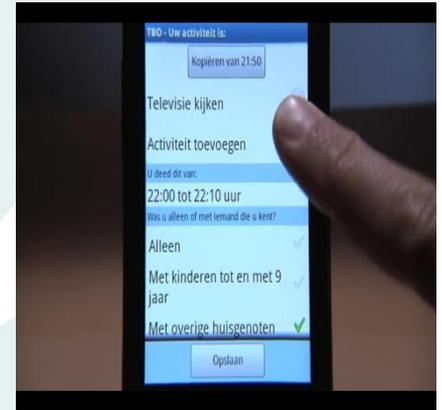


- Internet weighing scales



Time use diary app

- Developed by CentERdata
- Can be used any time
- Notifications (reminders)
- Closed answers: codes for activities
- Experience sampling: 3 popup questions on feelings, random moments



Design study:

- 12 months data collection
- 170 panel members per month, 2000 total
- Panel member completes two days
- **200 loan smartphones, lend for 7 days**

Mobility App

- Developed by Novay (The Netherlands)
- Uses GPS and Mobile Networks
- Algorithm: distance, mode (speed), time
- Web interface: respondents check and adapt
- Privacy issue: Consent procedure

Design study

- 3 waves spread over 3 years
- 500 panel members per wave
- 4 - 6 weeks measurement per wave
- **200 loan smartphones, lend for 4 weeks**



Accelerometer study

- Developed by Geneactiv (UK)
- Measures acceleration, body temperature, day light

Design study:

- 13 weeks data collection
- 70 - 90 panel members per week, 1000 in total
- Panel member wears 8 days
- ***300 accelerometers, lend for 8 days***



Weighing scale study

- Wireless weighing scales
- Uses radio signals through “bridge” and Internet, to send the data
- Measures weight and body fat
- Variability over time: more accurate and more frequent



Design study:

- Longitudinal study, currently 2.5 years
- 950 scales, recently 300 new scales added
- ***Lend to household for at least 1 year***



International collaboration

Institutes in other countries will have an innovative role model to follow

ELIPSS (Étude Longitudinal par Internet Pour les Sciences Sociales), Science Po, Paris

GIP (German Internet Panel), Mannheim University

GESIS Omnibus Panel, Mannheim

This may lead to a wealth of international comparisons and new global data networks



In its first phase, MESS has generated a clear return on investment

- An ultra-modern, efficient research infrastructure is now solidly in place
- The LISS panel has collected five years of rich and innovative data, using state-of-the-art methods
- Researchers worldwide have accessed this data for use in scientific, policy, and societal studies
- An innovative data archive is now easily available through a web tool on a dedicated LISS website

www.lissdata.nl



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