

The image shows two workers in orange safety suits and red hard hats. They are focused on a task, with one worker using a tool on a large, cylindrical metal component. The background is slightly blurred, showing other workers in similar attire. The overall scene is industrial and professional.

STREAM

Evidence from a work and retirement cohort | Swenneke van den Heuvel

TNO innovation
for life

Study on **T**ransitions in **E**mployment, **A**bility and **M**otivation (STREAM)



OBJECTIVES

In general:

To promote sustainable employability

Working longer in good health



More specific:

under which circumstances persons aged 45 and older can continue participating in paid employment with a high productivity and in good health

DESIGN

- › Employees, self-employed, non-working of 45-64 years old
- › Internet panel Intomart GfK
- › Stratified sample

| Age | Employees | Self-employed | Non-working | Total |
|--------------|---------------|---------------|--------------|---------------|
| 45-49 | 3.001 | 254 | 482 | 3.737 |
| 50-54 | 3.001 | 250 | 520 | 3.771 |
| 55-59 | 3.495 | 252 | 526 | 4.273 |
| 60-64 | 2.558 | 273 | 506 | 3.337 |
| Total | 12.055 | 1.029 | 2.034 | 15.118 |

- › Yearly measurements 2010, 2011, 2012, 2013, 2015
- › Linkage to register data Statistics Netherlands
- › Qualitative research in selection of participants

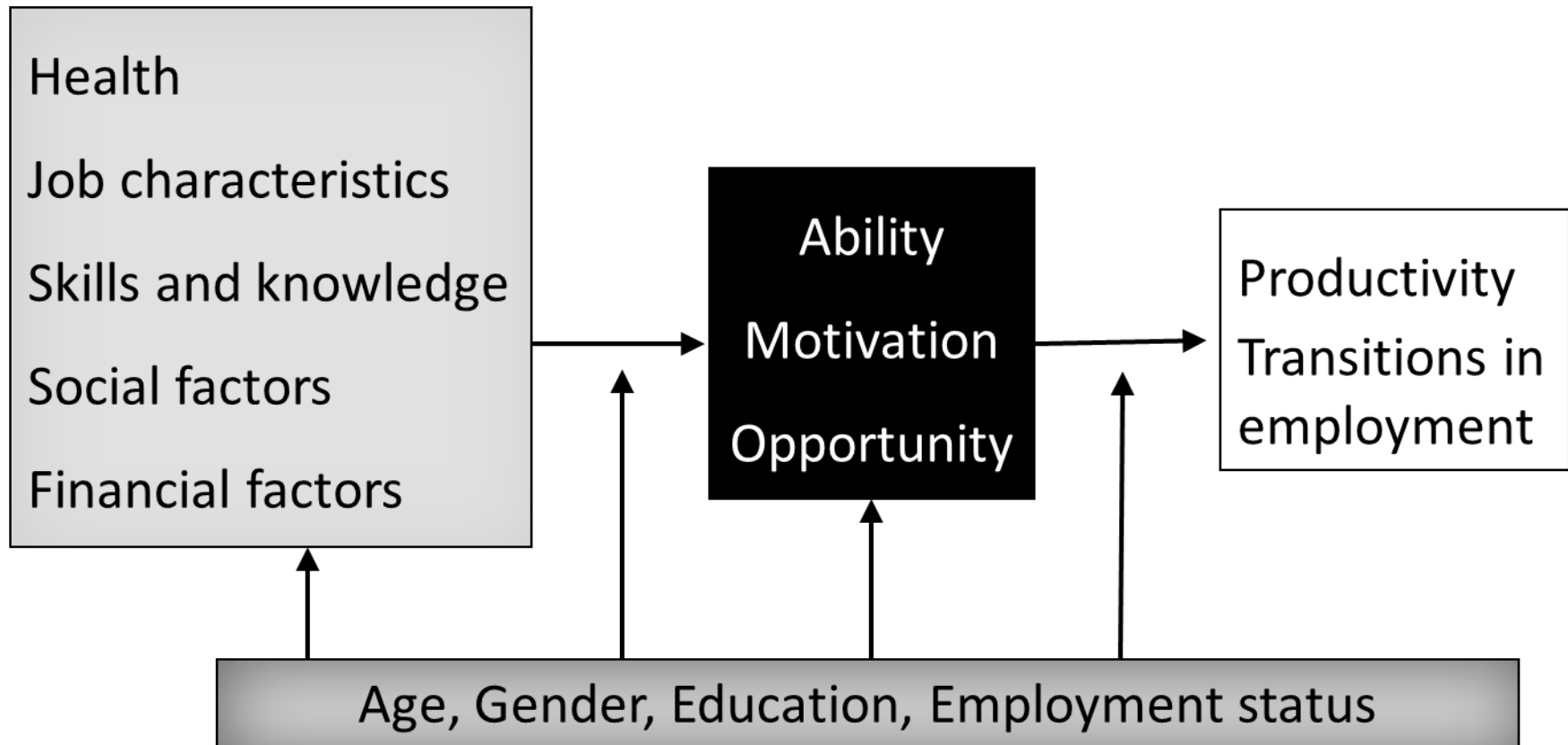
DESIGN

New study sample in 2015:

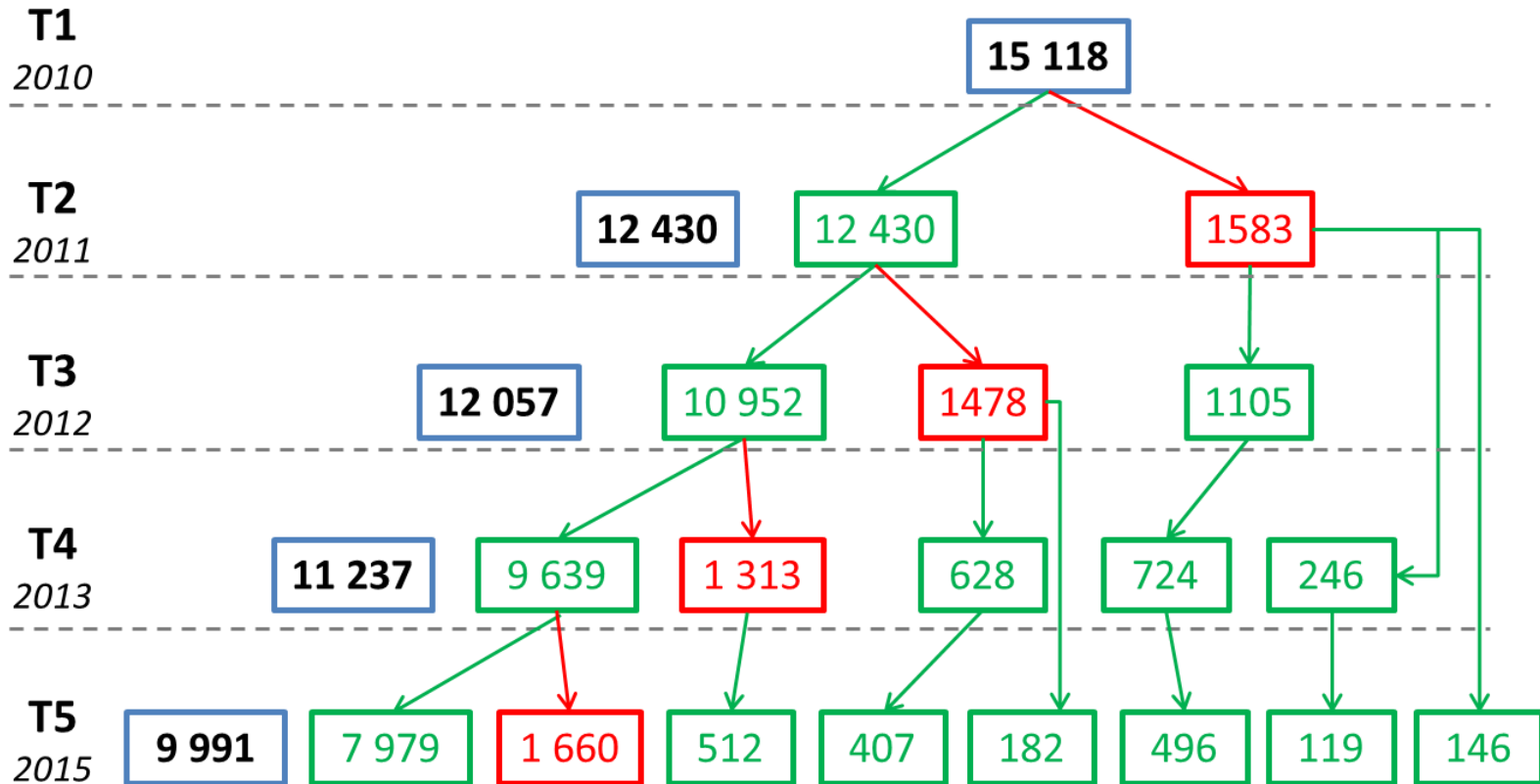
| | Employed | Self-employed | Non-working | Total |
|-------------|----------|---------------|-------------|-------|
| 45-49 years | 3702 | 282 | 515 | 4499 |
| 50-54 years | 753 | 67 | 19 | 839 |
| 55-59 years | 630 | 65 | 1 | 696 |
| 60-64 years | 622 | 60 | 0 | 682 |
| 65-69 years | 9 | 3 | 0 | 12 |
| Total | 5716 | 477 | 535 | 6728 |

- To fill the category of 45-49 years
- To add working participants in the older age groups

STREAM RESEARCH FRAMEWORK



RESPONSE



Complete cases: **7 979**
New cases T5: **6 738**

RESULTS & PLANS



Results till now:

- 2 PhD projects
- 14 papers in international peer-reviewed journals
- 6 publications in Dutch professional journals or handbooks
- 6 reports for policymakers

COMPLETED PHD PROJECTS



Astrid de Wind

From early retirement to
working beyond retirement



Fenna Leijten

Working longer in good health

NEW PHD PROJECTS



New patterns of work
multiple job holding



Dynamics in the working lives
of older adults and participation
in other productive roles

- > De Wind A, Geuskens GA, Reeuwijk KG, Westerman MJ, Ybema JF, Burdorf A, Bongers PM, van der Beek AJ. "Pathways through which health influences early retirement: a qualitative study". *BMC Public Health* 2013;13:292.
- > De Wind A, Ybema JF, Van der Beek AJ. Psychosocial job characteristics and older persons' early exit from the workforce. [Psychosociale werkkenmerken en vervroegde uittreding ouderen] *Economische Statistische Berichten* 2013;98(4655):152-155. [Dutch]
- > De Wind A, Geuskens GA, Ybema JF, Blatter BM, Burdorf A, Bongers PM, van der Beek AJ. Health, job characteristics, skills, and social and financial factors in relation to early retirement - results from a longitudinal study in the Netherlands. *Scand J Work Environ Health* 2014;40(2):186-194.
- > Leijten F, Van den Heuvel S, Geuskens G, Ybema JF, de Wind A, Burdorf A, Robroek S. How do older employees with health problems remain productive at work?: a qualitative study. *J Occup Rehabil* 2013 Mar;23(1):115-24.
- > Leijten FR, van den Heuvel SG, Ybema JF, Robroek SJ, Burdorf A. Do work factors modify the association between chronic health problems and sickness absence among older employees? *Scand J Work Environ Health* 2013;39(5):477-85.
- > Munderlein M, Ybema JF, Koster F, Happily ever after? Explaining turnover and retirement intentions of older workers in the Netherlands, *Career Development International* 2013;18(6).
- > Reeuwijk KG, de Wind A, Westerman MJ, Ybema JF, van der Beek AJ, Geuskens GA. "All those things together made me retire": qualitative study on early retirement among Dutch employees". *BMC Public Health* 2013;13:516.
- > Sanders J, Van Wijk E, Boneschansker O, Ybema JF. From employment to employment

- mobility among low educated persons aged 45 and above [Van baan naar baanmobiliteit bij laagopgeleide 45-plussers]. *Tijdschrift voor Arbeidsvraagstukken* 2012;28:474-490. [Dutch]
- > van de Vijfeijke H, Leijten FR, Ybema JF, van den Heuvel SG, Robroek SJ, van der Beek AJ, Burdorf A, Taris TW. Differential effects of mental and physical health and coping style on work ability: a 1-year follow-up study among aging workers. *J Occup Environ Med* 2013;55(10):1238-43.
- > Ybema JF, Geuskens GA, van den Heuvel SG, de Wind A, Leijten FRM, Joling C, Blatter BM, Burdorf A, van der Beek AJ, Bongers PM. Study on Transitions in Employment, Ability and Motivation (STREAM): The design of a four-year longitudinal cohort study among 15,118 persons aged 45 to 64 years. *British Journal of Medicine and Medical Research* 2014; 4(6):1383-1399.
- > Rob Gründemann, Jan Fekke Ybema & Jos Sanders. Work values of low-skilled older workers. [Werkwaarden van laagopgeleide oudere werknemers] *Gedrag & Organisatie* 2014;(27)2:117-138. [Dutch]
- > Leijten FR, van den Heuvel SG, Ybema JF, van der Beek AJ, Robroek SJ, Burdorf A. The influence of chronic health problems on work ability and productivity at work: a longitudinal study among older employees. *Scand J Work Environ Health* 2014;40(5):473-82.
- > de Wind A, Geuskens GA, Ybema JF, Bongers PM, van der Beek AJ. The role of ability, motivation, and opportunity to work in the transition from work to early retirement - testing and optimizing the Early Retirement Model. *Scand J Work Environ Health* 2015 Jan;41(1):24-35.
- > Leijten FR, van den Heuvel SG, van der Beek AJ, Ybema JF, Robroek SJ, Burdorf A. Associations of Work-Related Factors and Work Engagement with Mental and Physical

- Health: A 1-Year Follow-up Study Among Older Workers. *J Occup Rehabil* 2015 Mar;25(1):86-95.
- > Van der Meulen I, van den Heuvel SG, Ybema JF, de Wind A, Burdorf A, Geuskens GA. Company Policies on Working Hours and Night Work in Relation to Older Workers' Work Ability and Work Engagement: Results From a Dutch Longitudinal Study with 2 Year Follow-Up. *J Occup Rehabil*. 2015 Aug 7. [Epub ahead of print]
- > Leijten FR, de Wind A, van den Heuvel SG, Ybema JF, van der Beek AJ, Robroek SJ, Burdorf A. The influence of chronic health problems and work-related factors on loss of paid employment among older workers. *J Epidemiol Community Health*. 2015 Nov;69(11):1058-65. Epub 2015 Jun 25.
- > Dorenbosch L, Boneschansker O, Fermin B, Andriessen S, Sanders J, Geuskens G. Multi-jobbing as an employability strategy [Multi-jobbing als employability-strategie]. *Tijdschrift voor Arbeidsvraagstukken* 2015;31:165-185. [Dutch]
- > Sanders J, Blonk R, Geuskens G, de Grip A. Learning lags behind events; does training help older employees recover from perceived skills shortages? [Achter de feiten aan leren. Helpt scholing oudere werknemers te herstellen van kennistekorten? *Tijdschrift voor Arbeidsvraagstukken* 2015;31. [Dutch]
- > Ybema JF, van der Meer L, Leijten FR. Longitudinal Relationships Between Organizational Justice, Productivity Loss, and Sickness Absence Among Older Employees. *Int J Behav Med*. 2016 Feb 25. [Epub ahead of print]



COLLABORATIONS



NETHERLANDS
INTERDISCIPLINARY
DEMOGRAPHIC
INSTITUTE



Doesn't it look good?



drawbacks

pitfalls

CHALLENGES

limitations

No anecdotes

Evidence

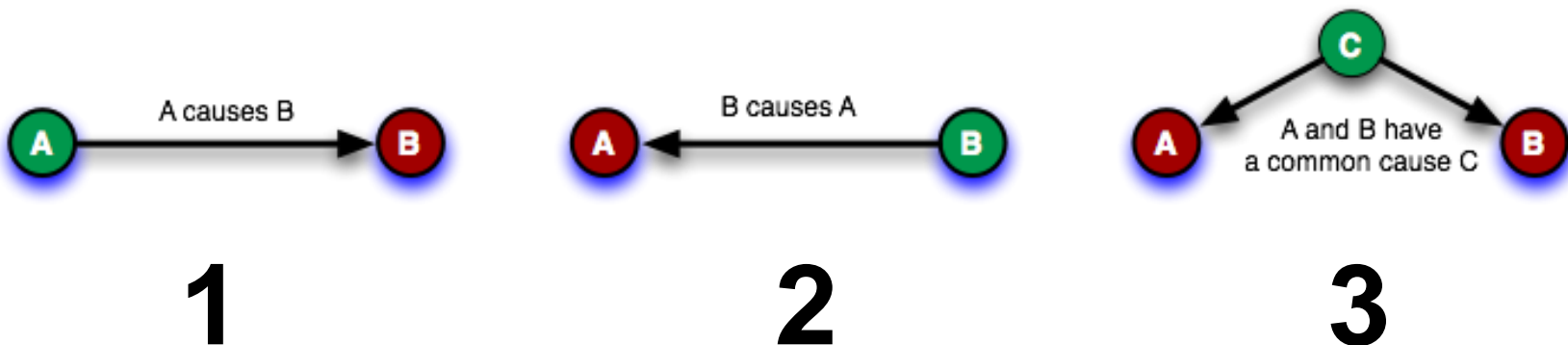
Proof

causality

CAUSALITY?



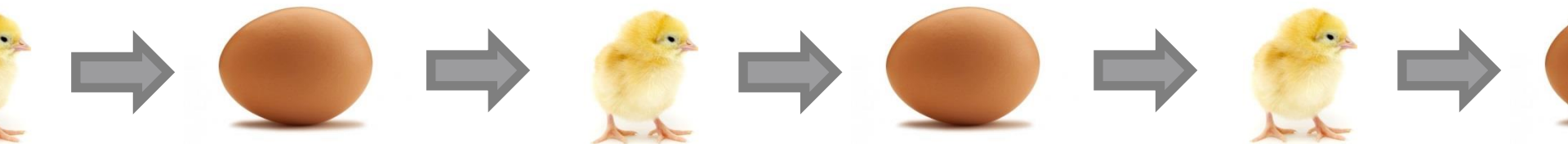
“We found a relation between A and B”



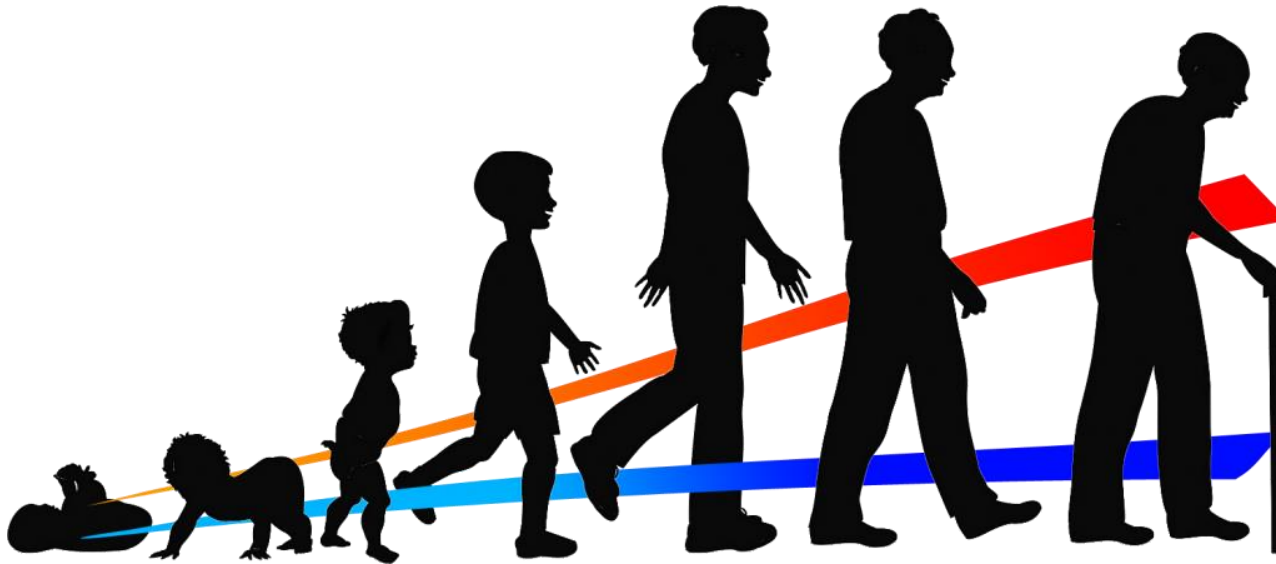
CAUSALITY?



In longitudinal studies at least you know which came first

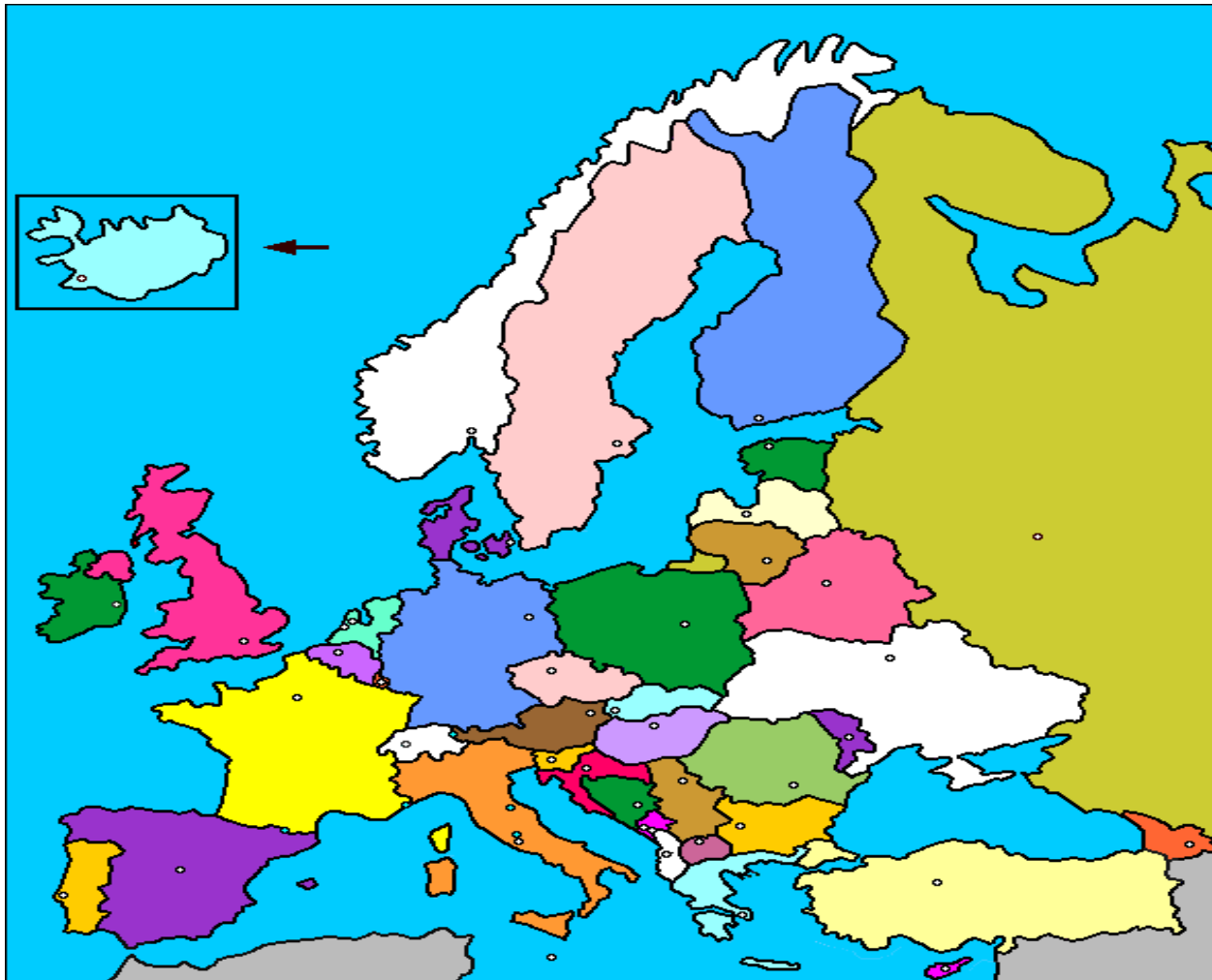


LIMITATIONS IN TIME



| | | | | | | | | | | | | | | | | | |
|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |

LIMITATIONS IN REGION



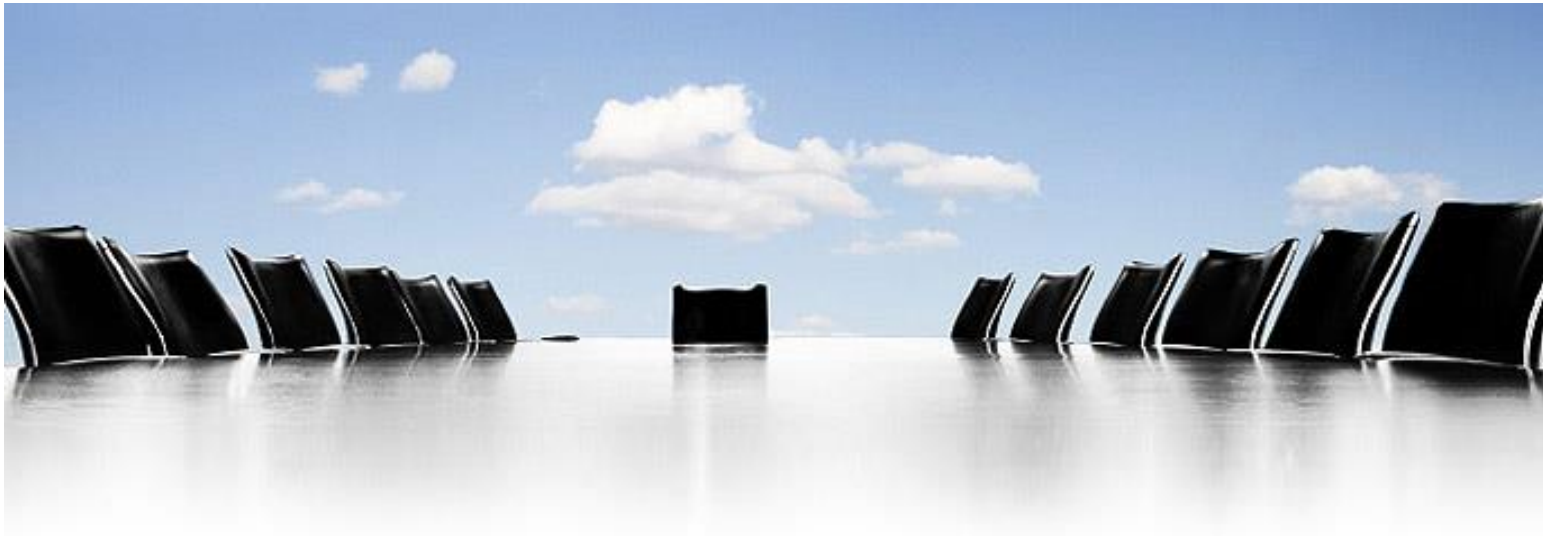
QUESTIONNAIRES

- Self-reports
subjective measurements, not independent, some topics are not known to the respondents
- Limited space
which topics, preferably short
- Irritating questions
work after retirement? Why? I want to have an option 'not applicable'!



COMPANY POLICIES

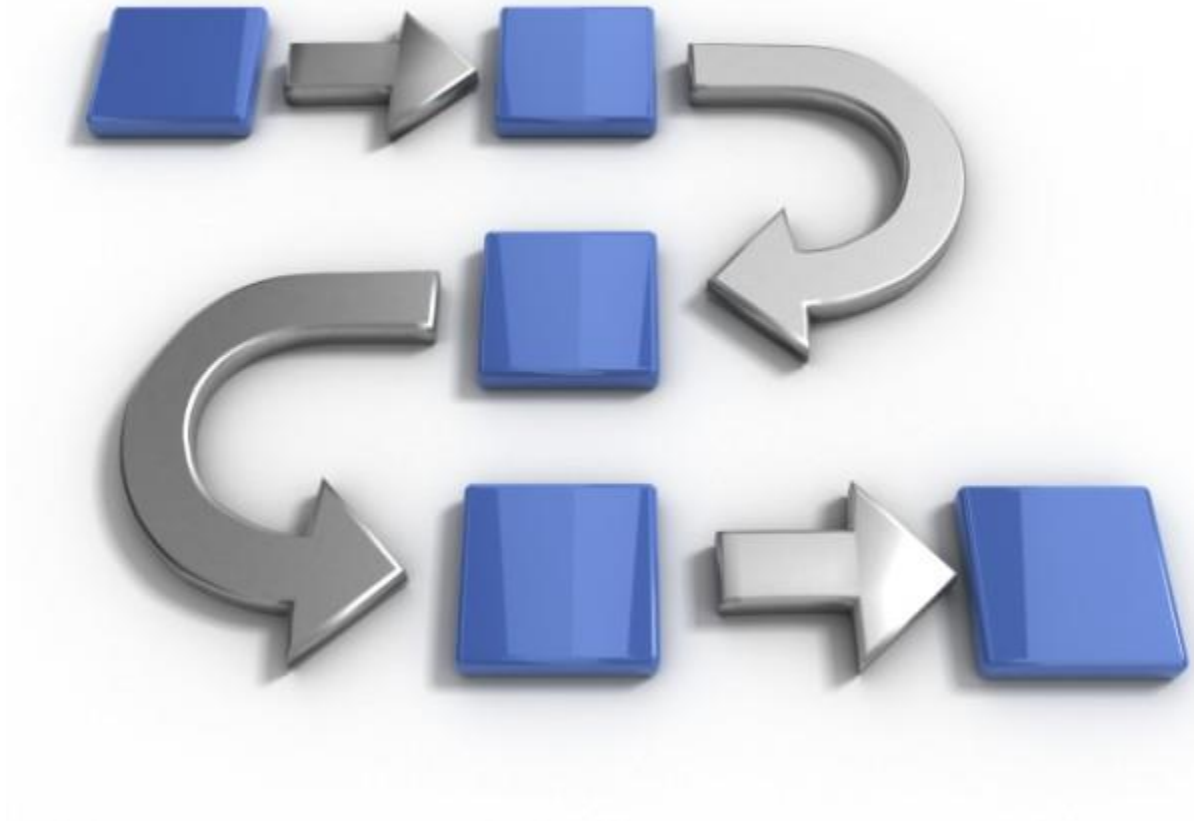
- Cohort studies \neq intervention studies
- What do workers know about the OSH-policy in their company?
- Effect of awareness



A bright sun is positioned in the upper left quadrant, casting rays of light across a clear blue sky. Large, fluffy white clouds are scattered throughout the scene, particularly concentrated in the lower half. The word "OPPORTUNITIES" is written in a large, bold, orange font with a slight shadow, centered horizontally across the middle of the image.

OPPORTUNITIES

METHODOLOGY



OTHER SOURCES

- Register data
objective measurements - health, income, retirement, type of industry
- Company data
more information on company policies



INTERNATIONAL COOPERATION

- Exchange of knowledge
- Harmonize our data collection
- International projects



QUALITATIVE RESEARCH

- ❑ More insight is needed; not ‘is A related to B?’, but ‘how are they related?’
- ❑ Interviews, focus groups



NEXT.....

- Micky Scharn – interdisciplinary approach combining questionnaire and register data (STREAM)
- Morten Wahrendorf – life history data (SHARE)
- James Banks – methodological innovations of a 15 year follow-up study (ELSA)
- Marcel Goldberg – occupational epidemiology in a cohort study with a very long follow-up (GAZEL)



› **THANK YOU FOR YOUR ATTENTION**

Take a look:
TIME.TNO.NL

TNO innovation
for life