



› **MONITORING
WORKING CONDITIONS
THE DUTCH APPROACH**

**Seth van den Bossche
9 november 2018**

MISSION

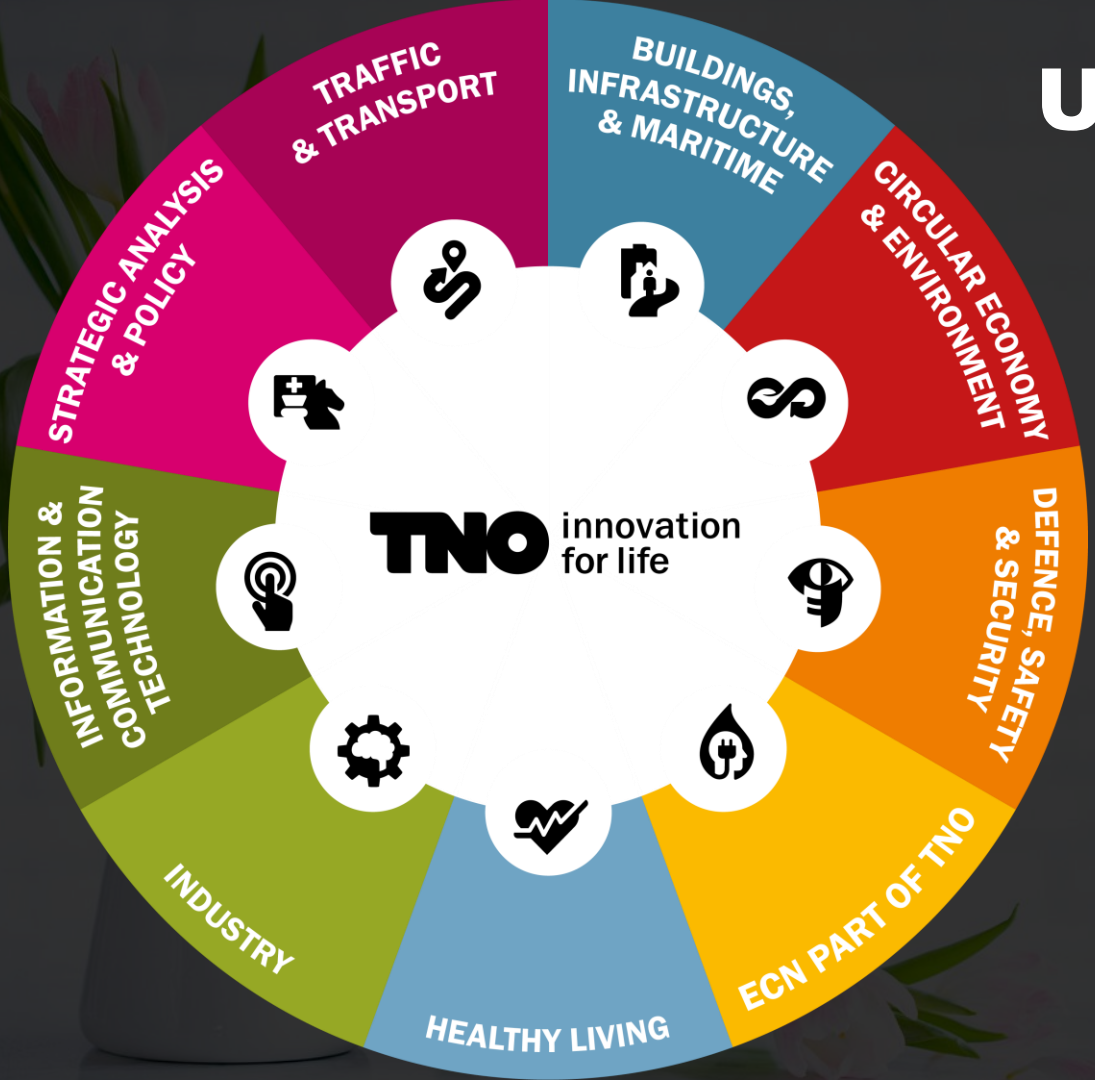
To connect people and knowledge to create innovations that boost the competitive strength of industry and the wellbeing of society in a sustainable way

TNO innovation
for life

This is our mission and the professionals of TNO have used their knowledge and experience to this end for more than eighty years

'INNOVATION FOR LIFE'

UNITS



TNO innovation for life

M	T	W	T	F	S
		1	2	3	4
6	7	8	9	10	11
13	14	15	16	17	18
20	21	22	23	24	25
27	28				

PROGRAMME OVERVIEW

**NATIONAL
STATISTICS**

Reliable / independent
Official Statistics

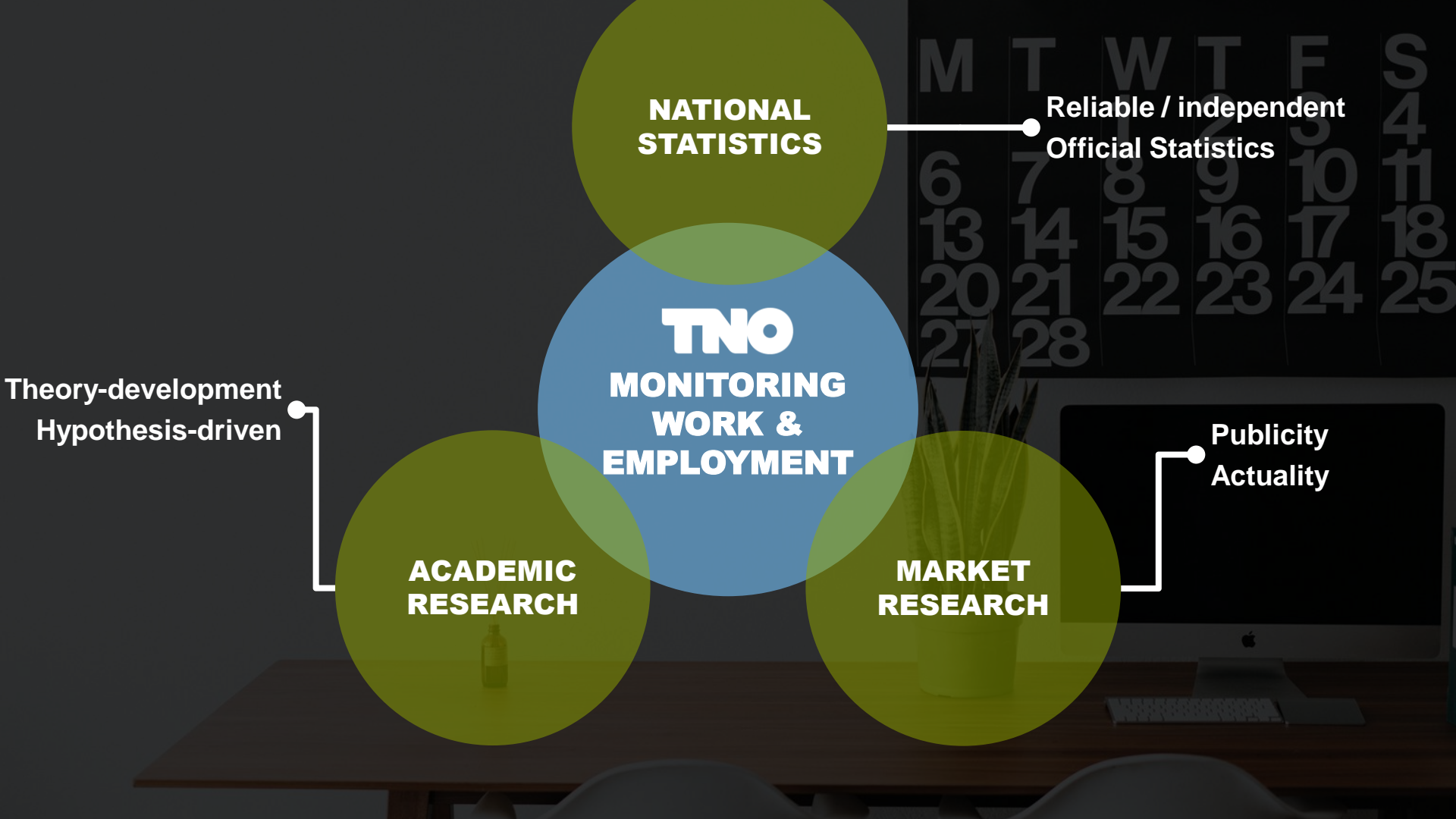
TNO
**MONITORING
WORK &
EMPLOYMENT**

**ACADEMIC
RESEARCH**

**MARKET
RESEARCH**

Publicity
Actuality

Theory-development
Hypothesis-driven



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OUR AIM

TNO
MONITORING
WORK &
EMPLOYMENT

- Identify & follow trends in working conditions
- Identify 'emerging risks' & risk groups, and relations between:
 - Working conditions
 - Sustainable employability
 - Health & well-being
 - Etc.
- Through:
 - High-quality structural monitoring
 - Innovating monitoring, linking data sources
 - Development of tools and services for stakeholders

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MONITORING
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BUILDING BLOCKS

National Survey Of The Self-employed
Biannual monitor of working conditions
of self-employed

N = 5.000

NSS

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EMPLOYMENT**

NWCS

Netherlands Working Conditions Survey
Annual monitor of working conditions
of employees

N = 45.000

NEWS

National Employers Work Survey
Biannual monitor of working conditions
according to employers.

N = 5.000

BUILDING BLOCKS

National Survey Of The Self-employed
Biannual monitor of working conditions
of self-employed

N = 5.000

NSS

CODI

Cohort

Sustainable
Employability

Longitudinal research
based on the NEA 2015

15.000 employees,

1.500 self-employed

1.200 unemployed

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WORK &
EMPLOYMENT**

NWCS

Netherlands Working Conditions Survey

Annual monitor of working conditions
of employees

N = 25.000 - 45.000

National Employers Work Survey

Biannual monitor of working conditions
according to employers.

N = 5.000

STREAM

Study on Transitions in Employment, Ability and Motivation

Longitudinal research among 15.000 employees of age 45 and above

Since 2010

› NETHERLANDS WORKING CONDITIONS SURVEY

TNO



NWCS DESIGN

Sample

Drawn from the polisadministratie and the Dutch population register

2005-2013	80.000 invitations, response 25.000
2014-2017	140.000 invitations, response 38.000 (2014), 45.000 (2017)
2018	173.000 invitations, oversampling education

Population

Employees, oversampling groups with low response

2005-2013	15-65 year
2014-2018	15-75 year

Results weighted (7 factors) to maintain representability

2005-2013	choice of chance on gift certificate or donation
2014	no reward
2015	3 groups: 1) chance of i-pad, 2) chance of €250, 3) no reward
2016-2018	chance of €250

NWCS DESIGN



Questionnaire: 200+ items, 30 minutes

2005-2013 **55% paper, 45% online**

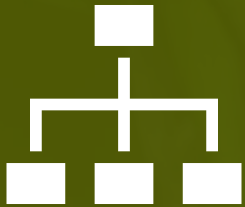
2014-2017 **>90% online**

2018 **100% online**

Data enriched

Standard: **Age, gender, ethnic background, sector, household composition, financial situation, urbanization (of residence), collective labor agreement**

On demand: **Linking with ‘any’ register-data, such as: hospital data, divorce, (future) contracts through the SSD**



THEMES



Personal characteristics

Age, gender, education, etc.



Quality of work

Work content and organization

Contact with clients, reorganization, etc.



Working conditions

Physical load, psychosocial load, violence etc.



Terms of employment

Working times, training, skills-match, etc.

Effects



Health, accidents, absenteeism, employability, turnover, innovation, productivity



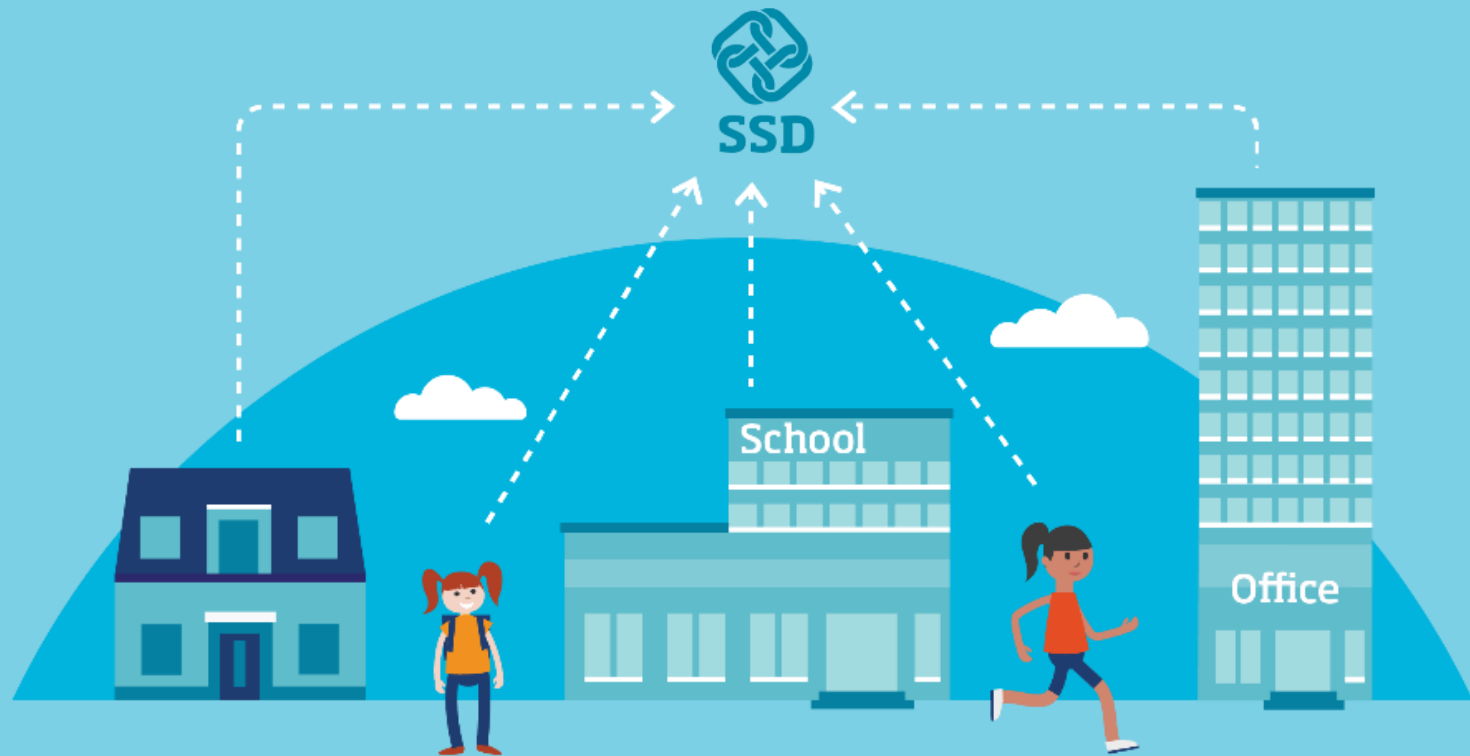
Company policy

HRM, absenteeism, measures taken

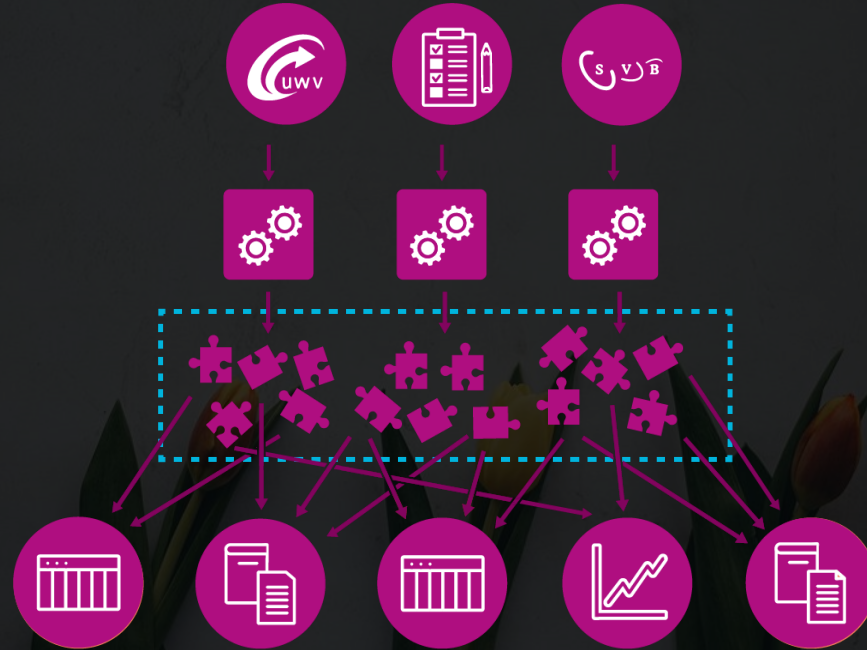


LINKING DATA





HOW DOES THE SSD WORK?





**DATA
DISSEMINATION**

IMPACT

- Direct link to Dutch policy priority setting and evaluation: Ministries, Labour Inspectorate, Social Economical Council, Health Council, etc
- Input for (EU) Campaigns such as reducing work-stress or managing dangerous substances
- Extensive media coverage: national agenda setting
- Data available for general public
 - Web-based benchmarking tools
 - Factsheets and interactive visualizations
- Data analyses on request for companies, unions, economic sectors, ministries, etc.
- Scientific impact: in collaboration with various universities

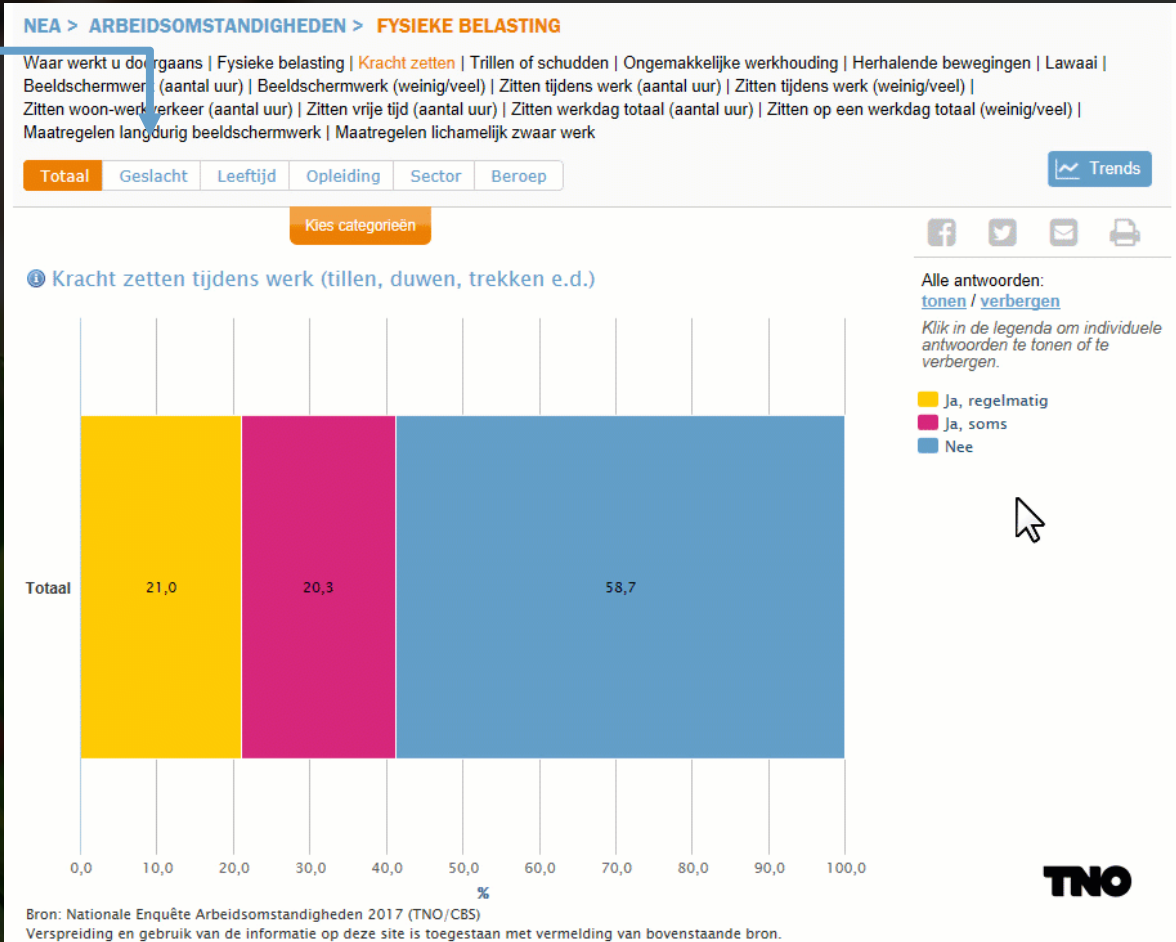


TOOLING

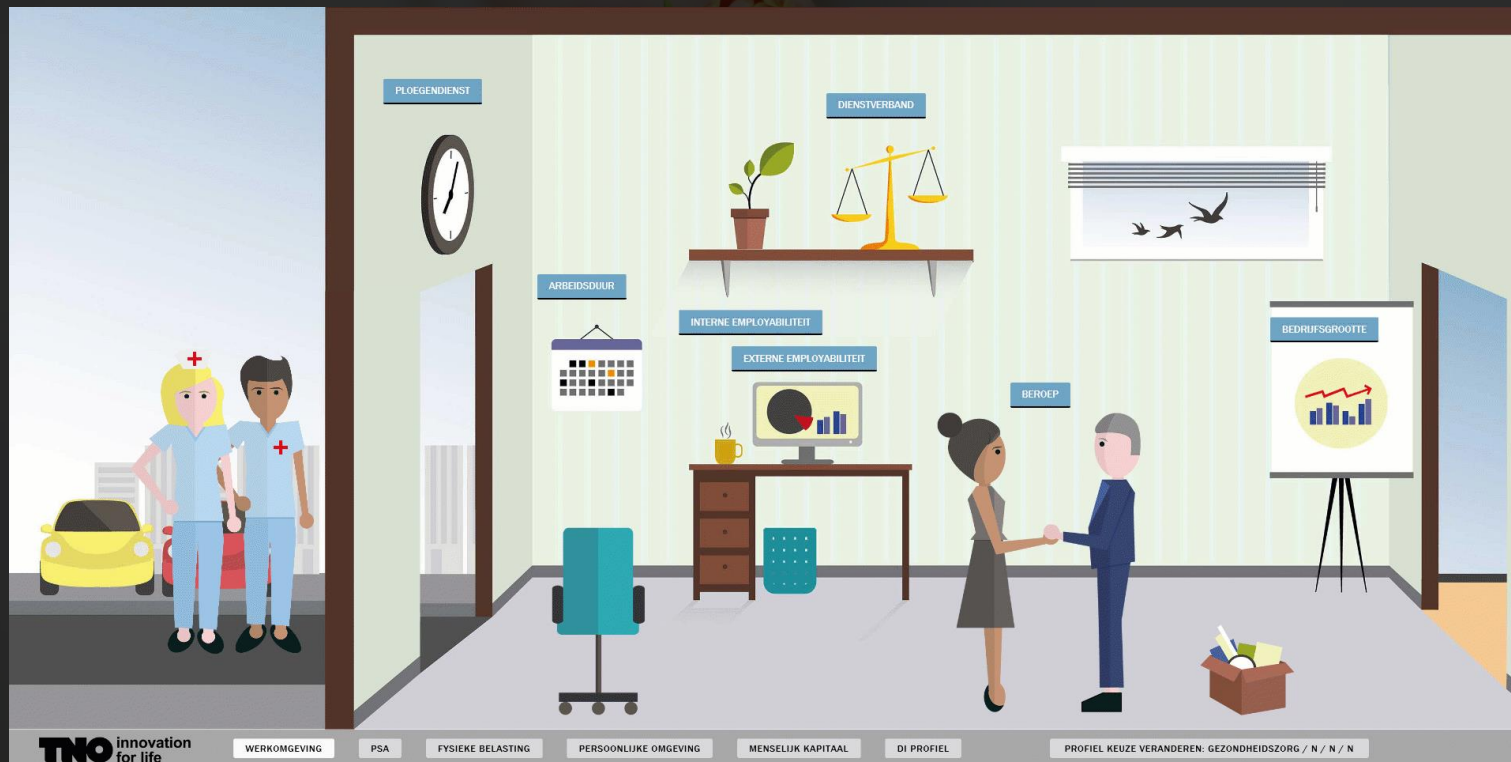
USING FORCE AT WORK

GENDER DIFFERENCES

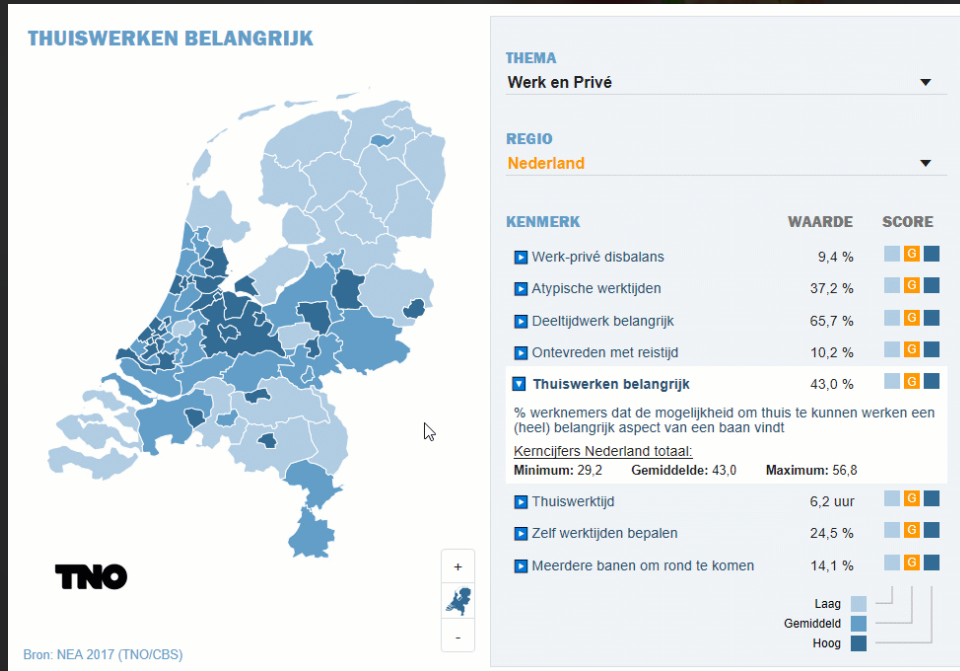
DIFFERENCES BETWEEN SECTORS OF INDUSTRY



VISUALIZATION



VISUALIZATION



**WORK-LIFE
BALANCE**

**IN DIFFERENT
REGIONS**

FACTSHEETS

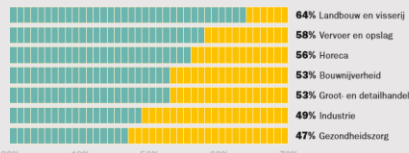
FACTSHEET FYSIEKE ARBEIDSBELASTING 2018

HOEVEEL EN WAAR KOMT HET VOOR?

VAN ALLE WERKNEMERS MOET*

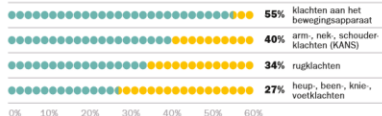


SECTOREN WAAR FYSIEK BELASTEND WERK HET MEEST VOORKOMT*



GEVOLGEN VOOR DE GEZONDHEID

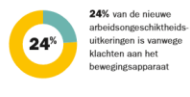
WERKNEMERS MET BEWEGINGSAPPARAAT KLACHTEN IN DE LAATSTE 12 MAANDEN (al dan niet door werk)*



BEROEPSZIKTEN*



ARBEIDSONGESCHIKTHEID*



VAN ALLE WERKERELATEERDE VERZUIMINGEN*



NIET KUNNEN DOORWERKEN TOT AOW-LEEFTIJD¹

50% van de werknemers van 50 tot 65 jaar MET fysiek belastend werk denkt niet door te kunnen werken tot de AOW-leeftijd



42% van de werknemers die GEEN fysiek belastend werk doen denkt niet door te kunnen werken tot de AOW-leeftijd



MAATREGELEN¹

30% van de werknemers met lichamelijk zwaar werk vindt (aanvullende) maatregelen nodig t.a.v. het zware werk

BRONNEN: 1. NEA 2017 - 2. NEA 2018 - 3. UWV

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FACTSHEET WERK EN GEZIN

WERK EN GEZIN

OUDERS MET JONGE KINDEREN EN WERK

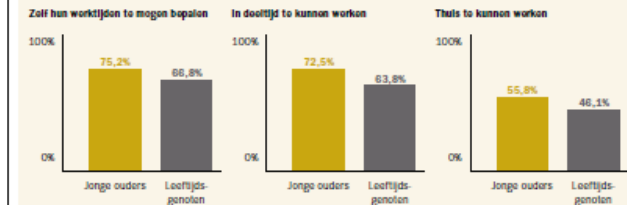


BIJNA 1 OP DE 10 WERKNEMERS IN NEDERLAND HEEFT PROBLEEMEN MET HET COMBINEREN VAN WERK EN PRIVÉ. DIT ZIJN BIJNA 670.000 WERKNEMERS



JONGE OUDERS HEBBEN BEHOEFTE AAN FLEXIBILITEIT

JONGE OUDERS VINDEN HET VEEL BELANGRIJKER DAN HUN LEEFTIJDGENOTEN OM:



54% VAN DE JONGE OUDERS KAN REGELMATIG ZELF BEPALEN WANNEER HIJ OF ZIJ VERLOF OPNEEMT

28% VAN DE JONGE OUDERS KAN REGELMATIG ZELF BEPALEN OP WELKE TIJDEN WORDT GEWERKT



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CHALLENGES

CHALLENGES AND INNOVATIONS



Dropping response rates

- Experiment with reward strategies
- New ways of measurement



Technical possibilities

- Connecting questionnaires and sensor data / app data
- Use of big data
- Voice analyses



New challenges

- Privacy / data ownership
- Feedback
- Interpreting sensor data



› **THANK YOU**
FOR YOUR ATTENTION

Seth van den Bossche