

Future working environment challenges in the Netherlands

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TNO | Kennis voor zaken



What I am going to do?

- trends that have major implications for working conditions in the Netherlands
- occupational safety and health in coming years
- gaps of knowledge



Trends that have an influence on Dutch working conditions

1. New technologies:

- ICT and telecommunications
- Automation and robotics
- Biotechnology
- nanotechnology

2. The dominance of the service sector

3. Upgrading of the labour market



Implications of new technologies for the working environment

- Opportunities and risks of virtualization, automation and robotics
- Safety technology
- *Intensive use of space*
- Biotechnology and nanotechnology

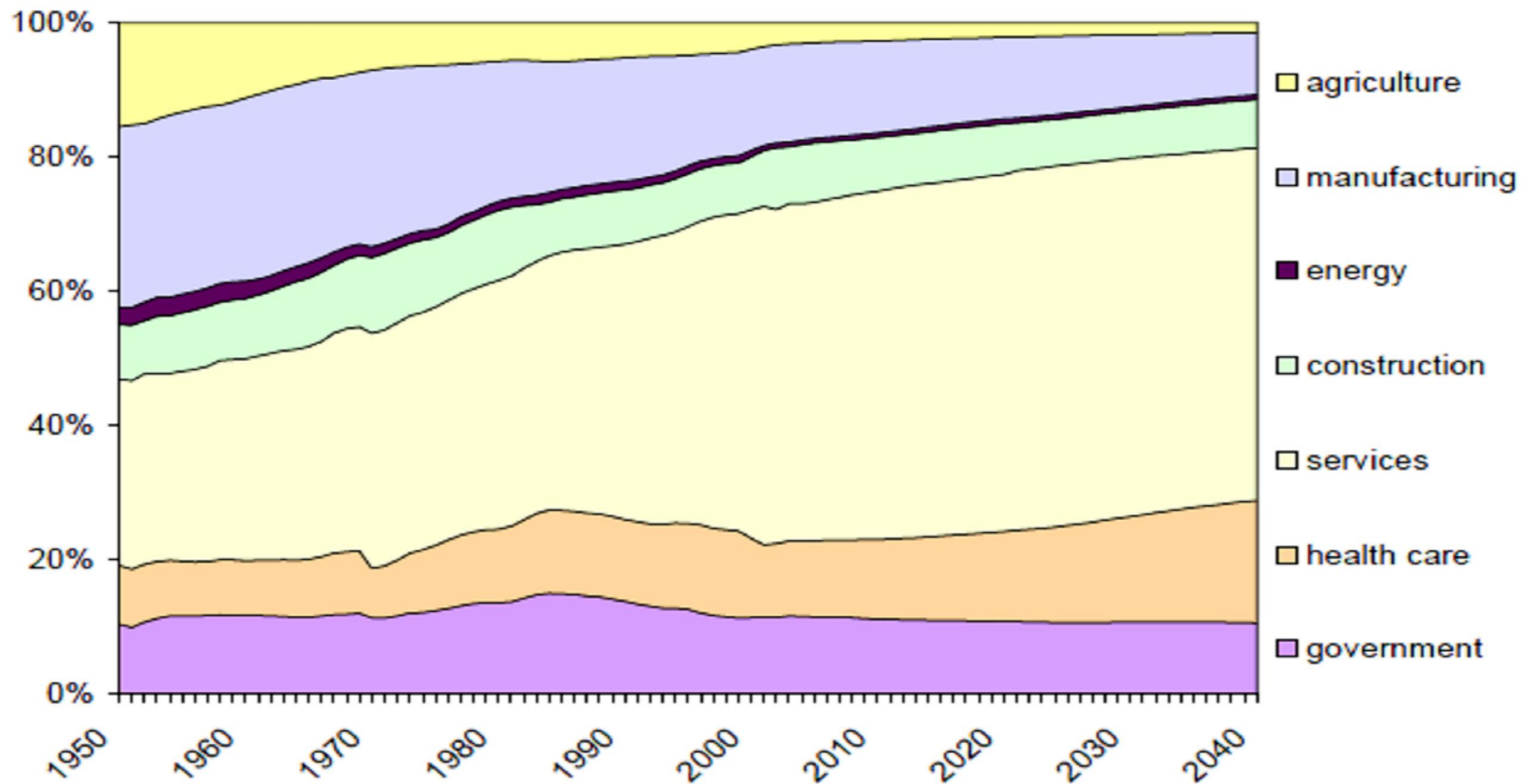


Het nieuwe Amsterdam ligt onder de grond



Dominance of service sector

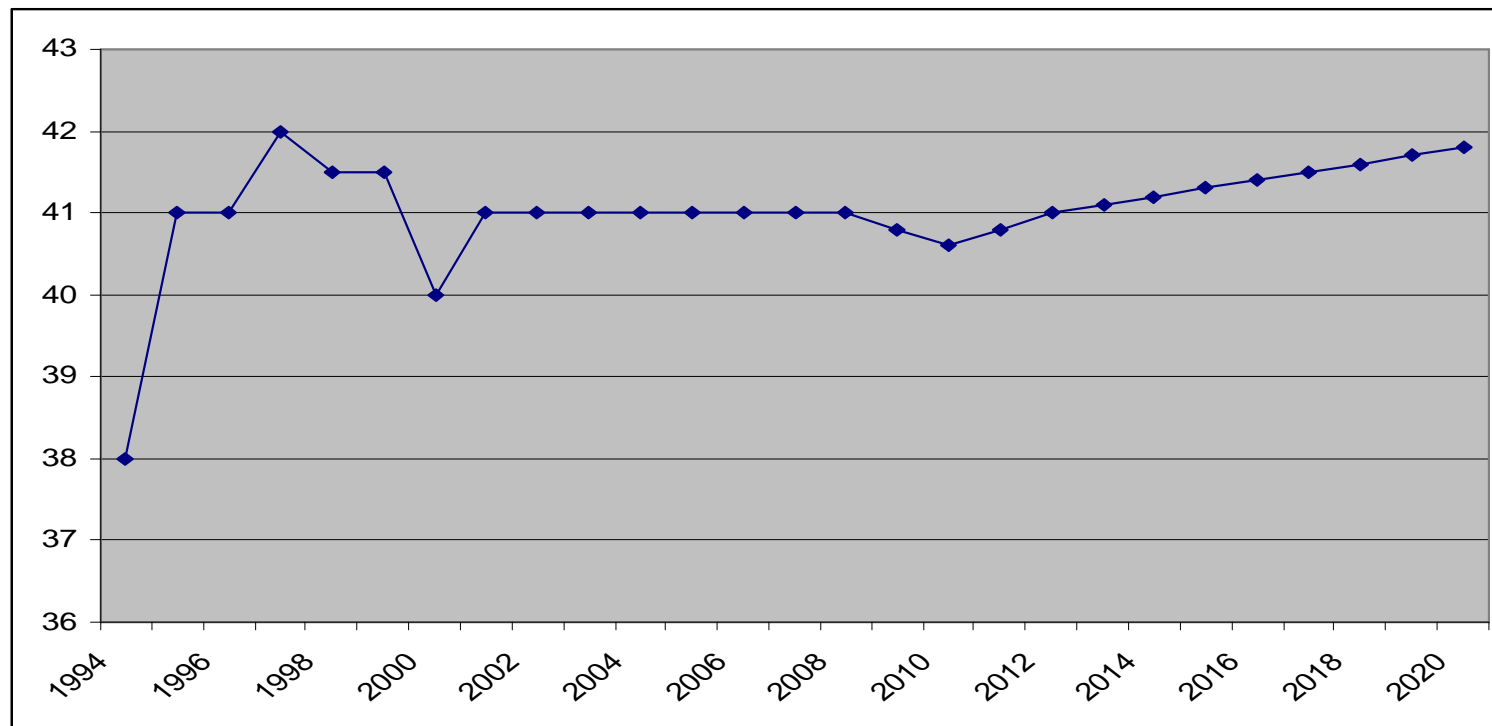
The share of the service sector in total employment is expected to increase



Implications dominance service sector

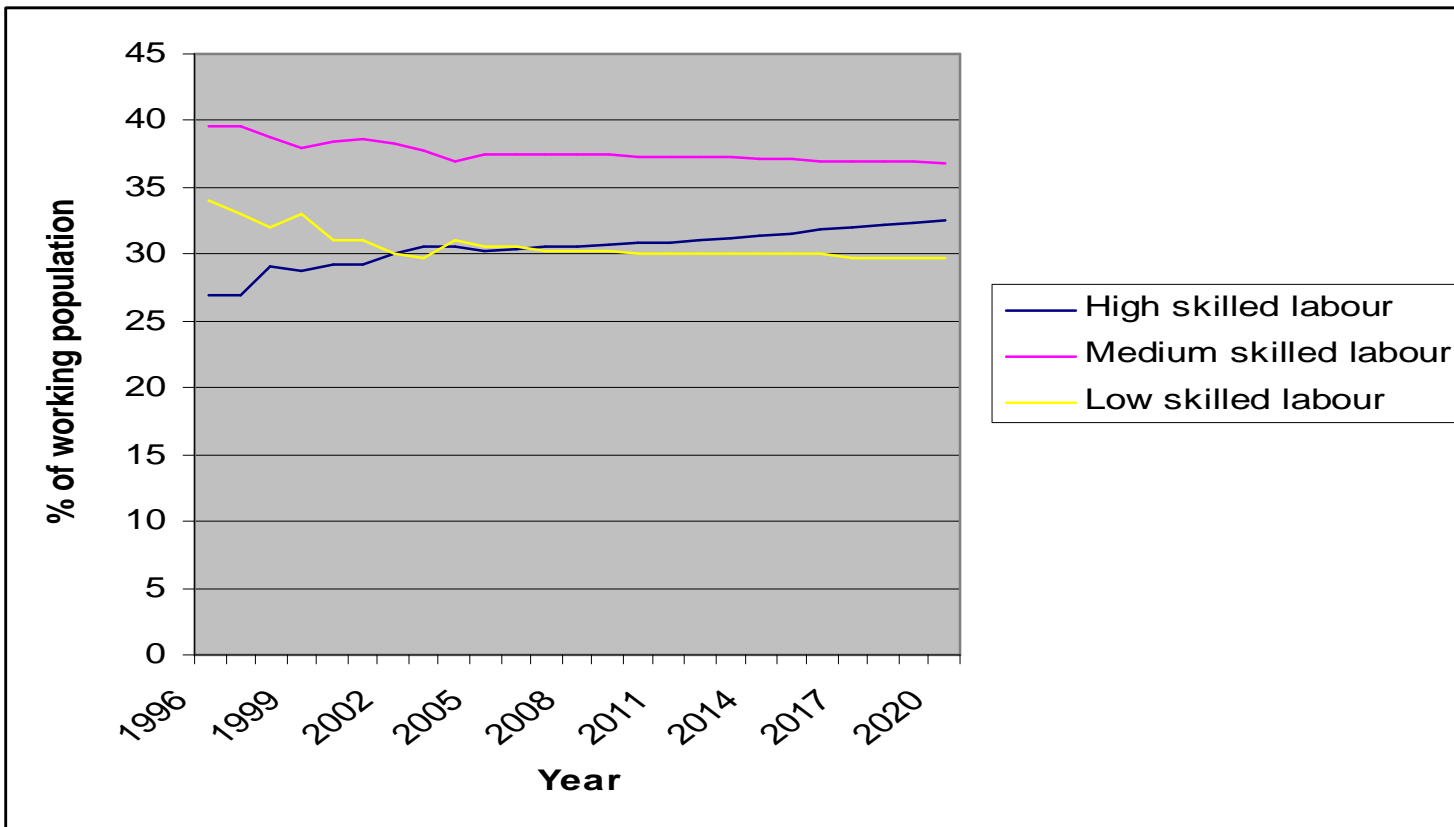
- Aggression and intimidation
- Work pressure and psychological pressure

Work pressure 1994-2020



Upgrading and downgrading

Upgrading, 1996-2009 and forecast for 2010-2020



Upgrading per educational level, 2007-2011

	Effect of education/ upgrading \emptyset	Employment change
	%	%
Primary education	-0.5	0.1
Lower secondary education	-0.5	0.2
Higher secondary education	-0.4	1.0
Intermediate vocational education	0.0	0.8
Higher vocational education	0.4	1.1
Higher education	0.6	1.6
Total (including others)	0	0.8



Implications of upgrading

“ More demanding requirements:

- make jobs more interesting: increasing opportunities for development
- lead to greater cognitive pressure in such jobs

“ Health risks at the lower end of the labour market:

- upgrading will reduce the number of available jobs
- working hours and working relationships will become more flexible
- measures to prevent illness or promote health will increasingly be lacking or will not be applied
- Work at the lower end of the labour market will therefore remain relatively unsafe

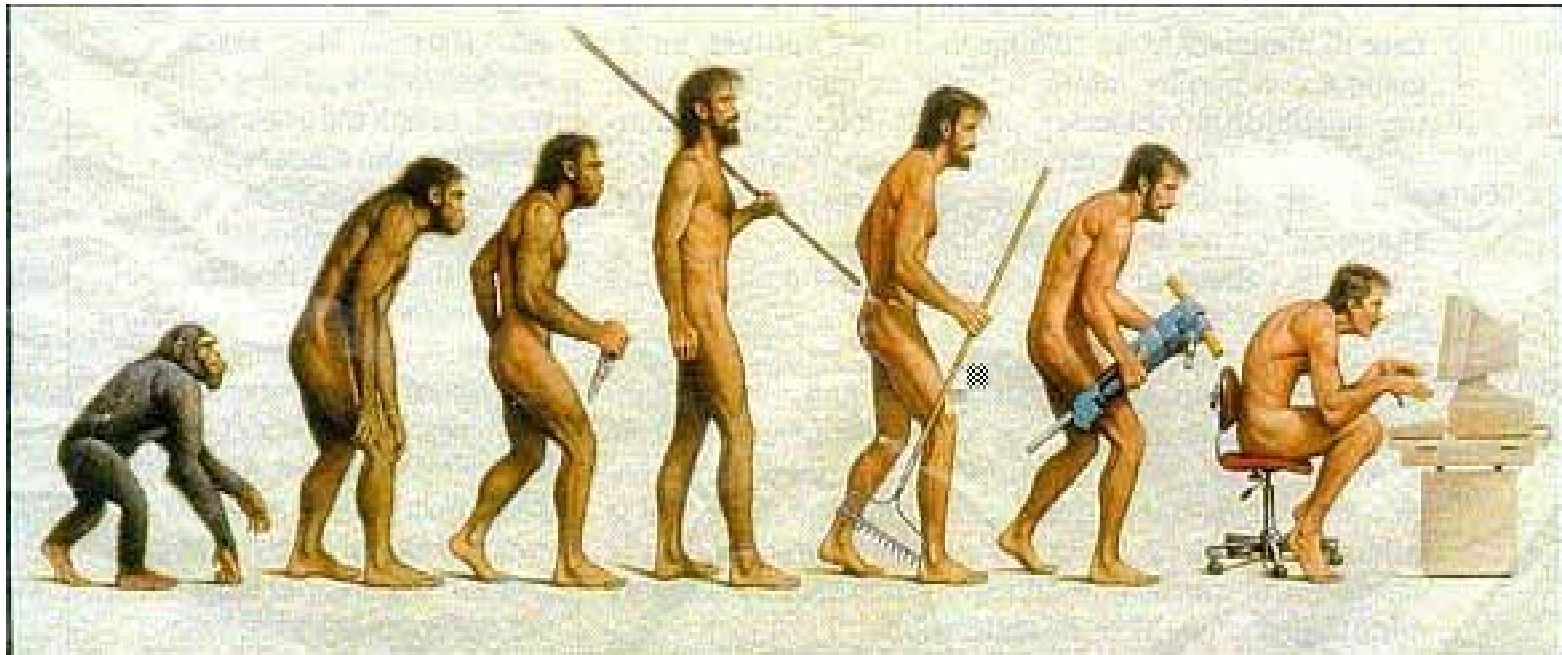


Unfavourable expectations for the future of OSH (2010-2020):

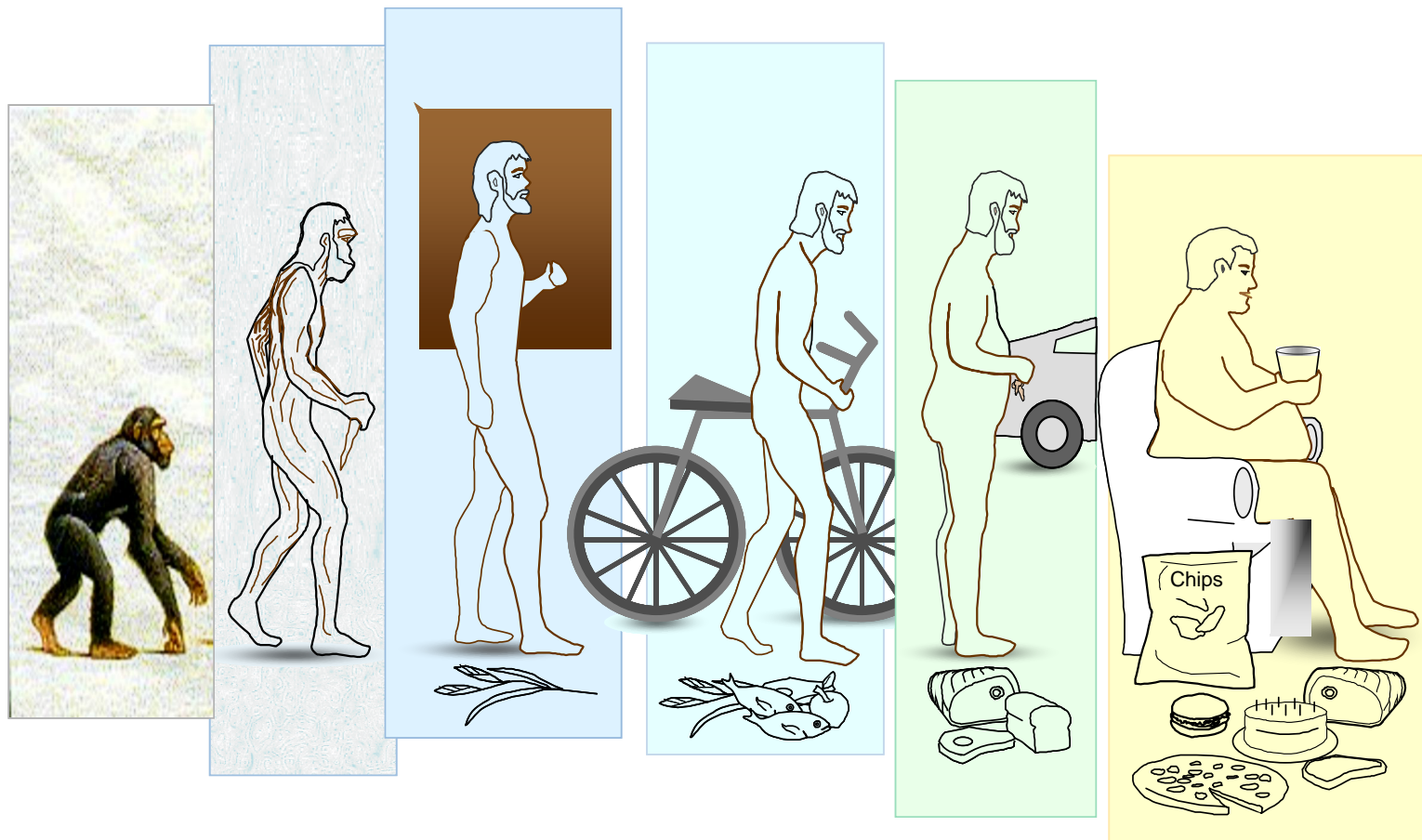
- “ increase in work pressure, psychological pressure and incidents of aggressive and intimidating behaviour at work
- “ effects of new technologies on health are still insufficiently understood (especially biotechnology and nanotechnology)
- “ increasing flexibility of working hours and working relationships, especially at the lower end of the labour market
- “ increase of age-related health problems
- “ unhealthy lifestyles (obesity, alcohol and drug use, regular exposure to noise)



Work has changed ã ã



but society too



Favourable expectations for the future of OSH (2010-2020):

- “ the use of new safety technologies
- “ the use of automation and robotics in risky work environment
- “ successful use of health and safety measures to combat work pressure, RSI, physically demanding work and exposure to noise
- “ safer working conditions to prevent aggression, intimidation and violence
- “ improved information to promote health at work (especially at the lower end of the employment market)



Knowledge gaps

- “ Relationship between chronic illnesses and employment
- “ How can curative health professionals focus more specifically on occupational safety and health issues?
- “ Effectiveness of safety technology in different working environments
- “ Insufficient understanding of the health effects of biotechnology and nanotechnology

