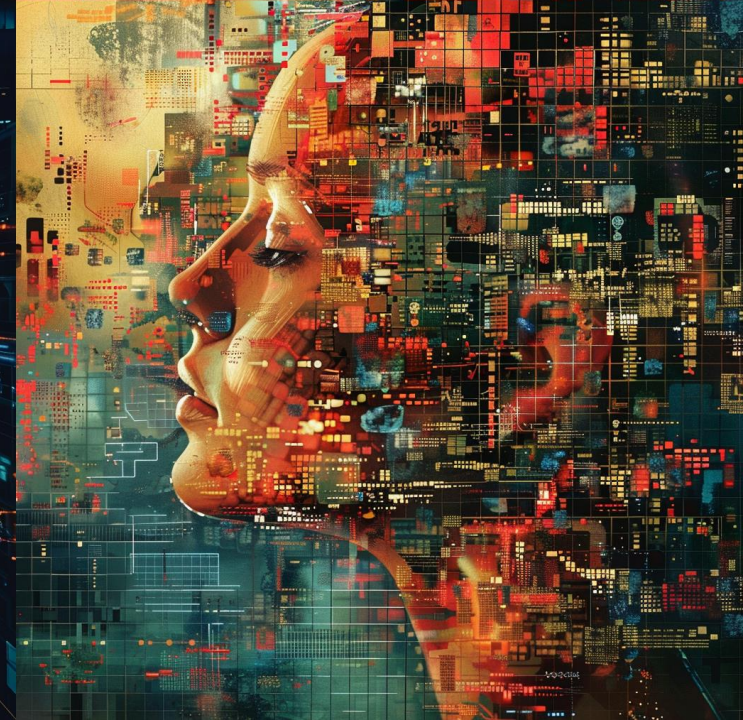


Prologue:

Midjourney:
Prompt

▶ Tomorrow's
working life in the
digital
transformation



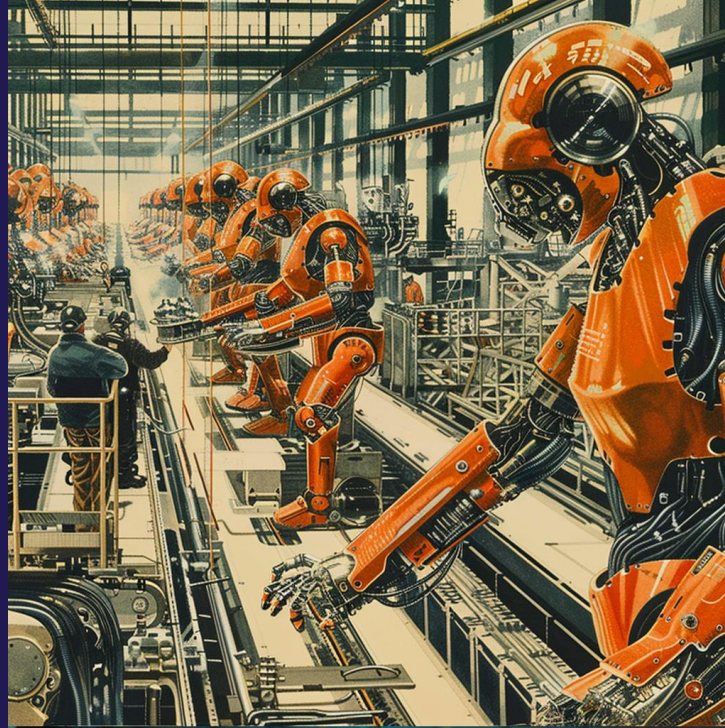
Midjourney: Prompt

▶ A picture showing
digital
transformation of
labour life



Midjourney: prompt a

- ▶ A Picture of AI and digital transformation of labour life in the Nordic countries for people working in the production industries where workers and managers collaborate in a democratic way



Midjourney: Prompt

- ▶ A picture of digital inclusion among Norway's industry workers learning to adapt to the digital transformation of labour life





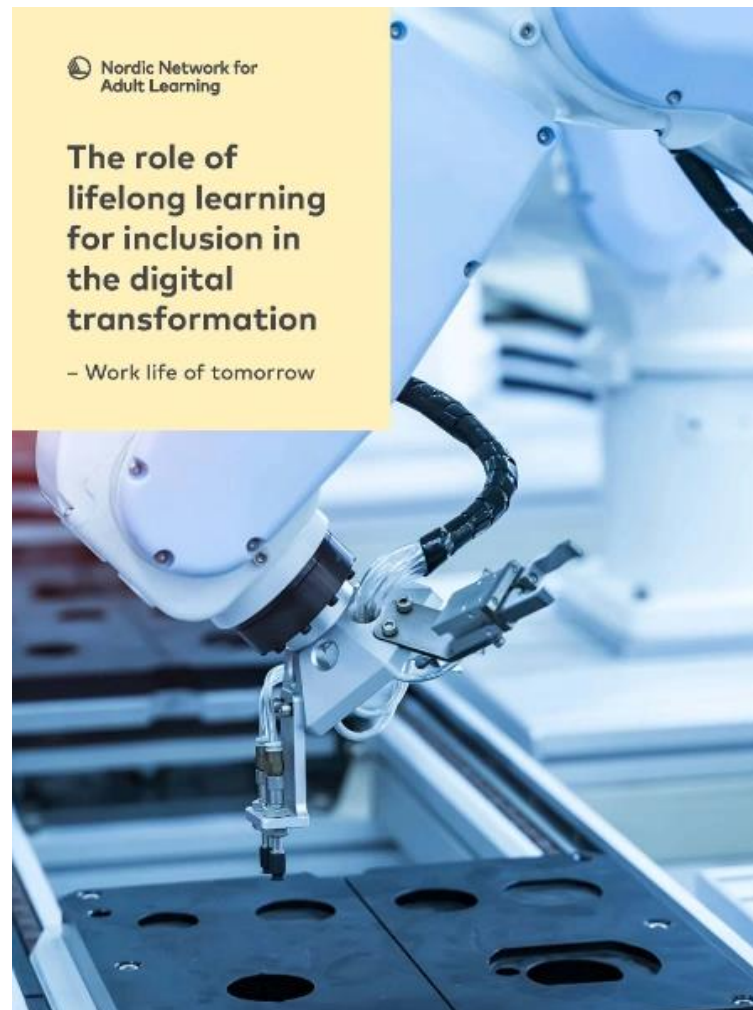
"Digitalization in Small and Medium-sized Enterprises (SMEs): Research Project and Recommendations"

Mie Buhl, ph.d. professor Aalborg Universitet

Network: NVL - digital inclusion Project 1: 2021-2022



Network: NVL – work life Project 2: 2022-2023




Digitalisation in working life

The Nordic countries:

- Frontrunners in digitalisation (EU, 2022; OECD, 2012)
Have a strong overall focus on digitalisation (NMR, 2020),

However:

- 2020 study pointed to the need for a joint Nordic effort on digitalisation in education and learning, including workplace learning. (Slåtto, 2020)

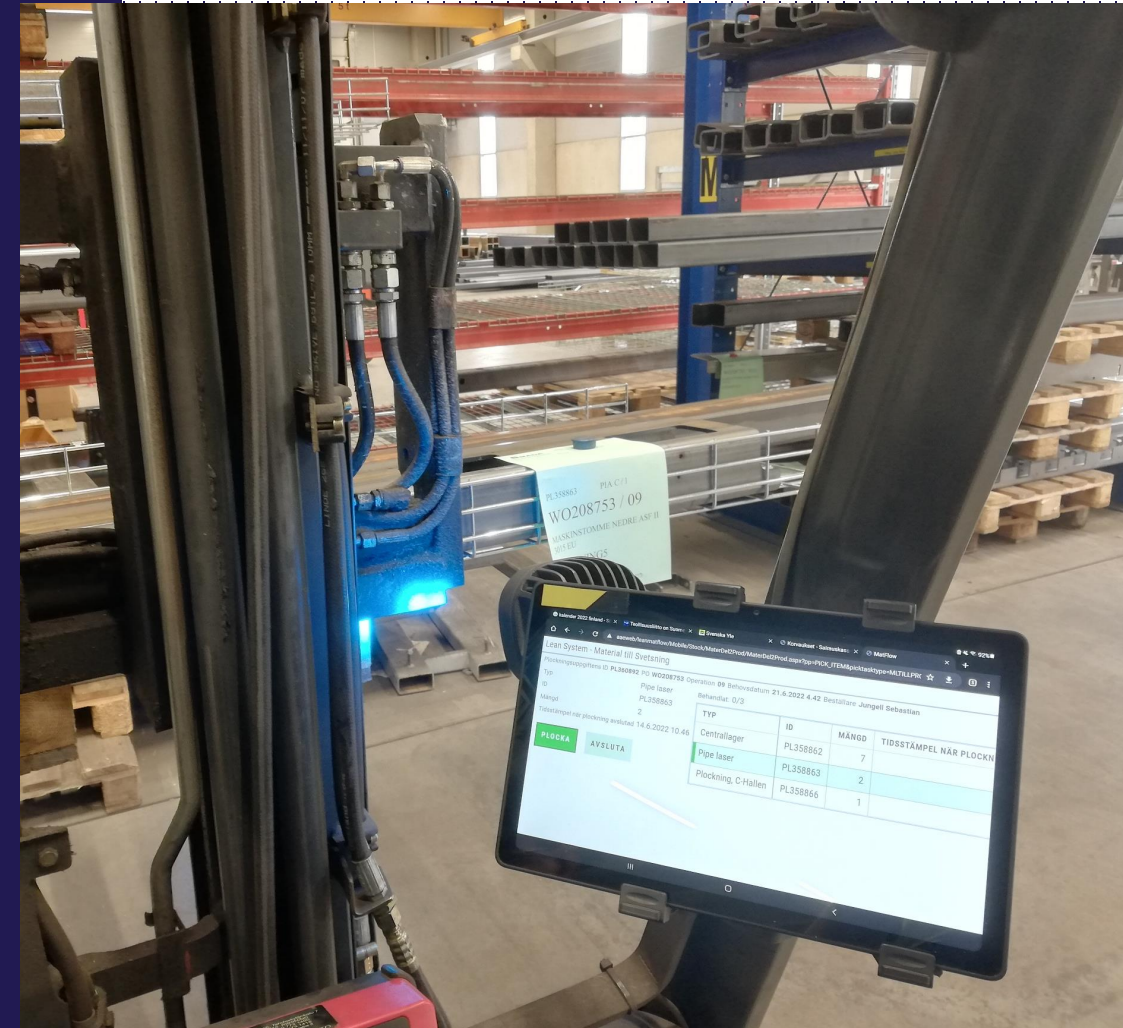
 Nordic Network for
Adult Learning

The role of
lifelong learning
for inclusion in
the digital
transformation

– Work life of tomorrow

Research project: 2022-2023

- ▶ Digitalisation in small and medium-sized enterprises (SMEs - 99% of all businesses)
- ▶ Emerging digital competences in the manufacturing industry?
- ▶ Focus on skilled and unskilled employees



Designed-based Research (DBR)

Four phases of participant involvement:

- Problem identification
- Testing



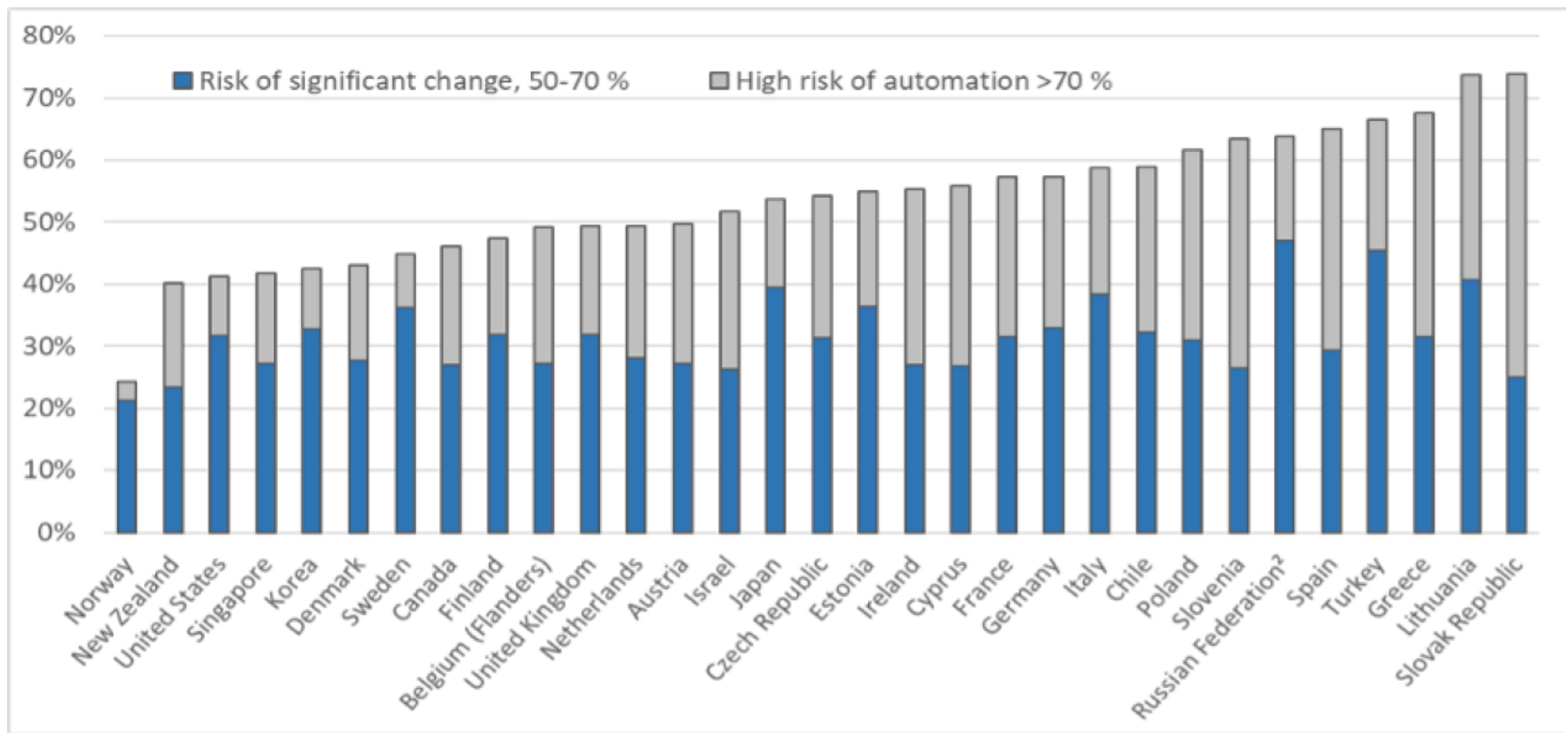
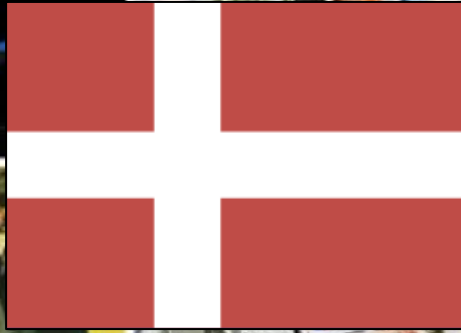


Figure 5 Variation in job automation (percentage of jobs at risk by degree of risk). Manufacturing sector. The table above is based on PIAAC data presented in Nedelkoska and Quintini (2018) and is a product of estimates made by the research team during the desk study.



Data:
- observations notes.
- photos
- mailkorrespondance

- Videodata from interviews.
- observationsnoter





Findings about dynamics that affect enterprises in their digital transition

- ▶ **Narratives:** prejudices and attitudes can both facilitate and delay
- ▶ **Agency:** many factors other than people and technology that influence
- ▶ **Simultaneity:** not either good or bad, efficient or inefficient - both 'forces' are present
- ▶ **Change and transitions:** the new normal.
- ▶ **New constellations of digital technologies and knowledge:** challenge of established hierarchies



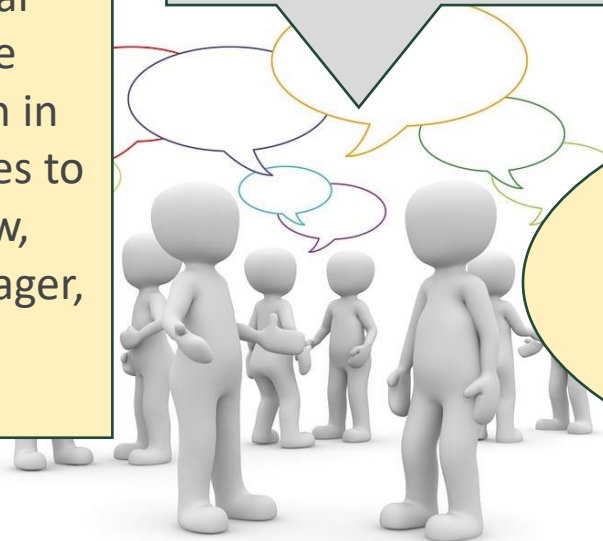
«I think that if we say that the elderly cannot learn to use digital technology – then it quickly becomes a self-fulfilling prophecy, doesn't it?»

«**On one side** digitalization leads to more direct communication However, **one of the downsides** is that this smartness also creates more work – the more buttons on the machine the more tasks the individual employee has to do himself. »
(focus group, juli 2022, employees, SMV'er)

.....it is important that everything works all the time – because there must be no downtime in production. It is a very fast pace when the new technology is adopted. »
(interview, december 2022, managers, SMV).

«There are a number of things that still have to be done manually. There is no digital system that can determine whether this is good enough in terms of quality when it comes to certain aspects.» (interview, december 2022, middle manager, collaborating-SMV).

«When you go from being the one in control, to suddenly becoming the one who can't do anything right.... It's the same as when we old people start peeing our pants – a bit degrading, in other words (interview, december 2022, employee, SMV)



The role of lifelong learning for inclusion in the digital transformation

– Work life of tomorrow

Policy recommendations

1. Implement with timely slowness

- Digital transformation is associated with the pursuit of ever-accelerating change.
- Being careful not to rush is an essential factor in understanding digital transformation

2. Prioritise a broad repertoire of strategies to navigate digital transition

- Navigating digital transformation requires drawing on a diversity of strategies
- A broad repertoire of strategies can create a collective awareness of what is “muddy” as well as what is “shiny”.

3. Create awareness(es) in practice of contexts

1. Be aware that the contexts in which digital technologies are embedded constitute the whole of change.

4. Include workforce knowledge forms as legitimate

1. Including employees’ professional competence as a legitimate form of knowledge can contribute to increased innovation, employee satisfaction and growth

5. Link competence development with context awareness

The employee “walks alongside” the development instead of lagging behind the development

'Vignettes' - a tool in the form of - small stories produced by employees and managers

- A local in-house initiative and supplement to upskilling courses
- A way for managers and employees to critically and reflexively consider both the opportunities and challenges of organisational change

The research project's solution

Research-produced vignette:

Stories as powerful drivers of impact (employee and leader perspective)

Research-produced vignette:

Professional identities under pressure in the digital transformation (employee perspective)

Explore local practice stories

Describe challenges in the digital transition (conversation/written keywords)

- xx
- + xx
- xx

What do we want to know more about? (write down one or more topics)

- 1) Topic - e.g. extra work (have "the new machines" created more work?)
- 2) Topic - e.g. retention/well-being (how do senior employees see themselves in the transition process?)
- 3) Topic - e.g. retention/well-being (how can we use senior employees' skills in the most beneficial way?)

How do we investigate the topic(s)?

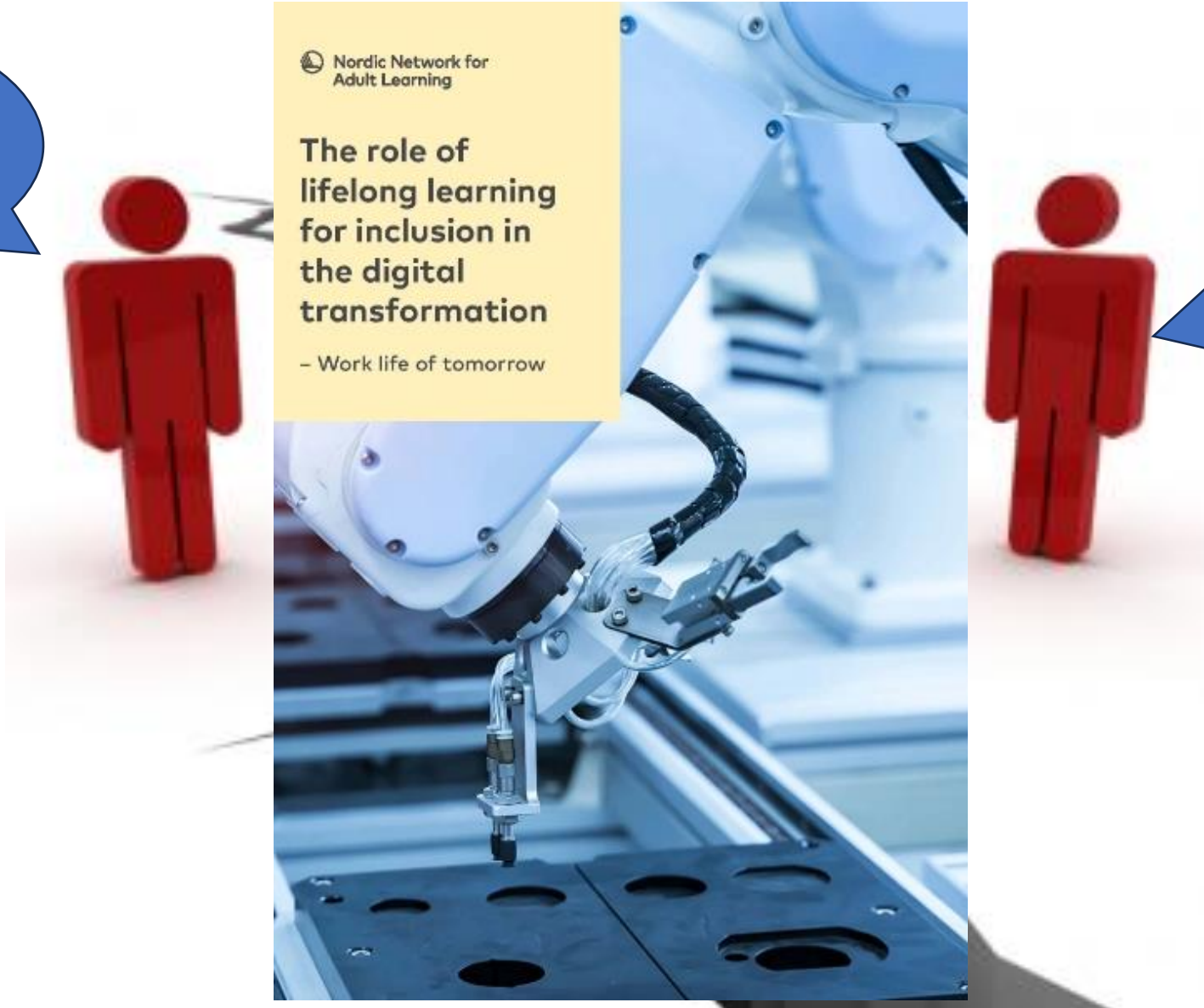
- Write down what you do - e.g. speak to colleagues or write a log?

How and when do we follow up our findings?

- Agree on when you will sum up your findings, and perhaps create a scenario on how you will use your new insight to change practices

What should drive digital transformation in manufacturing companies?

“(Probably)...
No digital quick
fixes...”



“No size fits all”