



## **The future of work (FoW): Opportunities and challenges for the Nordic models**

Project 2017-2020 funded by the Nordic Council of Ministers involving researchers from all five Nordic countries coordinated by Fafo

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### **The “Future of Work” debate is not new**

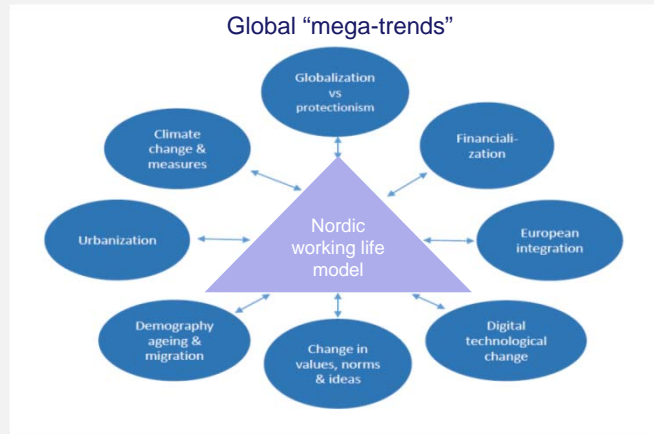
- **Contested theme with shifting and divergent perceptions of drivers, contingencies, and prospects**
- **TODAY, simultaneous concern about envisaged....**
  - **Lack of jobs** – due to robotization and automation
  - **Shrinking labour supply** – due to ageing and demographic change
  - **Surplus of labour lacking needed skills** – education failure & mismatch
  - **Joblessness & welfare dependency** – amplified by migration
  - **Polarization of occupational structures** – reinforced by digitalization
  - **Casualization of work** – new business concepts & forms of employment

→ **Good-bye to the wage-earner relationship of modern capitalism?**

- **Analyzing the FoW – and how to shape it – requires knowledge about the PAST and PRESENT dynamics of change at work**



## The *unknown* FoW will be shaped by a variety of drivers and constraints (Pillar-1)



- National impacts will be filtered by markets, human agency, and economic, political and social institutions
  - Avoid determinism and "one-dimensional" scenarios
  - Uncertainty, versatility, scope for political action



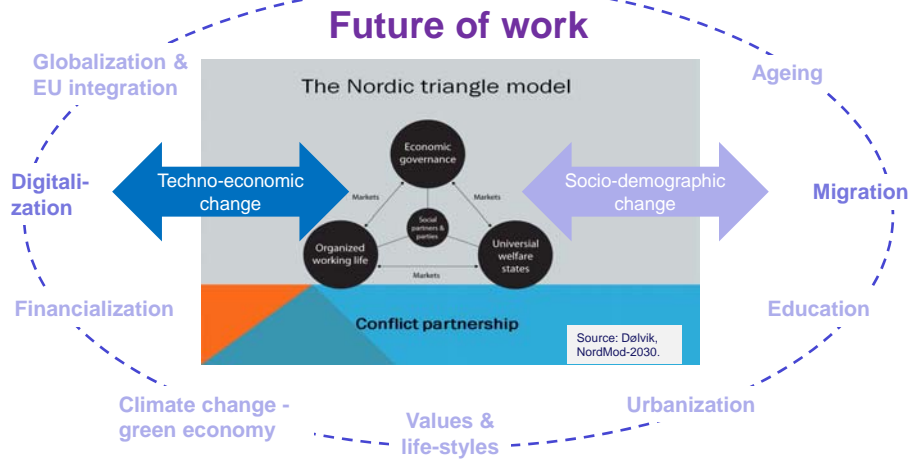
## The Nordic model – liability or asset in the reshaping of future work?



### CREDO:

- Work, equality, knowledge, and productive justice
- Technological innovation -friendly trade unions
- Strong institutions – but are they fit for the future?

## The Nordic model – liability or asset in the reshaping of future work?



→ Impact on jobs, skills, work organization, health & safety, labour relations, inequality, labour markets, and regulatory institutions?

### Project overview 2017-2020:

- **Four thematic pillars**
  1. *Drivers of working life transformation* (Coordinator: JE Dølvik, Fafo)
  2. *Digitalization & robotization of traditional work* (B Rolandsson, GU)
  3. *Self-employed, independent and atypical work* (A Ilsøe, UoC/FAOS)
  4. *New agents: platform mediators & managers of work* (K Jesnes, Fafo)
- **Three transversal pillars**
  5. *Impact on occupational health & HES policies* (JO Christensen, STAMI)
  6. *Labour law: Needs, hurdles, and pathways for regulatory reform?* (MJ Hotvedt, UiO, and K Alsos, Fafo)
  7. *The Nordic model: Reshaping the roles of markets, actors and the state?* (JE Dølvik, Fafo)
- **Policy-oriented, experience exchange, dialogue, and dissemination**
  - Linked to the FoW agenda of the ILO 100th Anniversary
  - Consortium of appr. 30 scholars from Nordic universities & institutes (list behind)
  - Steering Committee set up by Nordic Council of Ministers

## Pillar-2: Digitalization & robotization of traditional work – threat or opportunity for Nordic working life?



- Robotics, automation
- 3D printing, nanotech
- Machine learning algorithms,
- Artificial Intelligence
  - Big data
- Networks, sensors,
  - AR and VR
- Biotech, genetics
  - Cybernetics
  - Fintech
  - Blockchain
  - Cobot-care
  - Platform work...



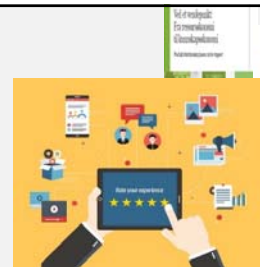
### Pillar-2: Digitalization & robotization....

#### Opportunities

- Innovation, efficiency, productivity growth, home-sourcing, job market matching...
  - Potential to double yearly economic growth by 2035 (Daugherty & Purdy 2016)
  - 30% of EU growth 2001-11 due to digitalization (Van Welsum et al 2013)

#### Threats

- Will the robots steal our jobs?
  - Frenzy phase: Massive eradication of jobs...
  - Maturing phase: Modest job effects, perhaps if any ...
  - **Crux: Are added values invested in new jobs & labour?**
- Polarization of skills & jobs -> the “squeezed middle?”
- Control, monitoring, alienation & degrading of work?
- Will the new co-workers – “cobots” – behave?



Why Are There Still So Many Jobs?  
 The History and Future of Workplace  
 Automation  
 David H. Autor (2015)  
 U-TUBE:  
[https://www.ted.com/.../david\\_autor\\_why\\_are\\_there\\_still\\_so\\_many\\_jobs](https://www.ted.com/.../david_autor_why_are_there_still_so_many_jobs)

## Work packages - built on comparative, multilevel approach

### Framing

- Analytical perspectives on studies of digitalization - 1) product innovation 2) rationalization/automation of production 3) trans-firm networks, logistics, supply chain; circulation
- National reviews of knowledge status, research, and policy approaches

### Empirical studies – linking analyses of

- Occupational upgrading or polarization
  - Quantitative study (LFS) of changes in skill & wage structure of employment 1995-2017
    - Differentiating between sectors, industries, and socio-economic categories
- Handling the digital shift in manufacturing work
  - Qualitative interviews with firm and social partner reps in 1-2 selected branches
- Varieties of service sector trajectories
  - Expert/focus group interviews with reps from 4-5 services sectors
    - e.g. retail, transport/logistics, food and service, and elderly care

### Overall purpose

- Provide illustrations, experience & research based knowledge suited to frame and stimulate policy debates across Nordic boundaries



## Fragmentation of work – undermining or reshaping the employment relationship and the Nordic Model?

Local



Global

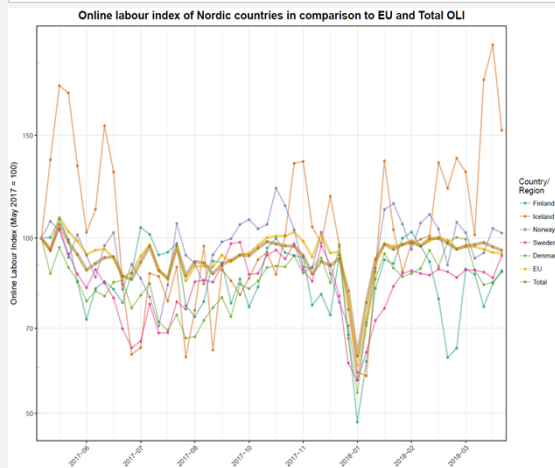


- Conventional forms of atypical work seem pretty stable in the Nordics (Nätti et al. forthcoming) – but under the radar ....?
  - Emphasis on new forms of atypical work & methods to study categories of uncovered by standard LFS
- “When your boss is an algorithm” (Alsos et al 2017) – which rights, responsibilities, and remuneration apply?
  - Comparing evolution of platforms, crowd-workers, their organizations, and regulatory responses in the Nordic countries



## An innovation in the making: “Nordic Online Labour Index”

Figure 1: Growth in international crowdwork - tasks posted by firms on the 5 largest English-language labour platforms 2016/5- 2018/3



- Platforms representing 70% of the market by traffic (Upwork, Free-lancer, Guru, Peopleperhour, MTurk)

- Tasks are classified by **occupation** and ordering firm by **country**.

- The index is normalized so that 100 points on the y-axis equal the daily average number of new tasks in May 2016

### Message:

**Company demand seems stable across the Nordic countries mirroring the pattern in EU - slight decrease in Denmark and Sweden**

Source: Online Labour Index (OLI), Kässi & Lehdonvirta (Oxford Online Institute).  
Visualisation: Braesemann



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## The “Future of work” is unknown – but is likely to challenge the Nordic models in a variety of ways

- Lab law & the regulation of work (pillar 6) ...
  - Social security and welfare systems premised on wage labour...
- Organized actors & the system of labour relations, collective bargaining & tripartite concertation (pillar 7)
  - Skill formation, re-training, and life-long learning opportunities...



## The “Future of work” is unknown – but is likely to challenge the Nordic models in a variety of ways

- Lab law & the regulation of work – pillar 6 – see title
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- Organized actors & the system of labour relations, collective bargaining, and tripartite concertation ...
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Above anything  
the digitalized future of work  
will test the Nordic capacity for  
**INSTITUTIONAL INNOVATION!**



## Thank you for the attention – and don't hesitate to contact us!

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