

Prof. Dr. Florian Butollo  
Soziologie der digitalen Transformation und Arbeit

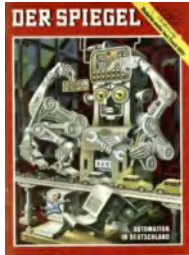
# Automation, labour shortages and social conflict

*arbeit.digital* Zukunftskonferenz, 19.03.2026

# More Work in spite of automation



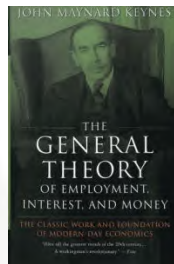
2025



1964



2016



1936

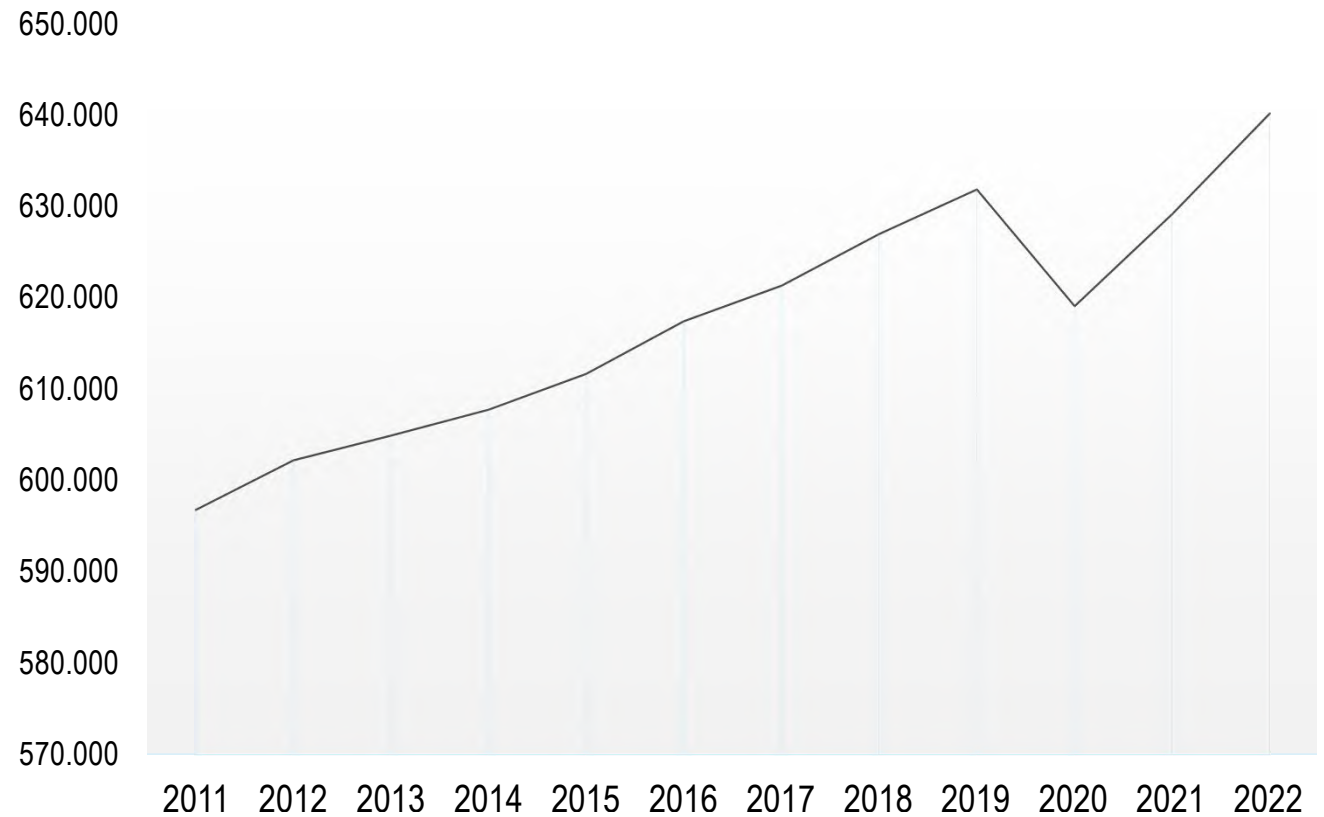


1978



1857

## Employment OECD



# Summary of the main argument

1. Rising complexity, acceleration and reflexive modernisation constitute „Rebound-Effekts of automation“.
2. Under the circumstances of demographic change, this results in permanent structural labour shortages
3. Conflicts at the workplace increasingly revolve around issues of the burden of work.
4. Socio-ecological transformation increasingly relies on the allocation of work: less bullshit jobs, more societal reproduction

# „Rebound effects“ to automation: Why does the volume of work increase?

## Rebound 1) More complex production and distribution

- Differentiation and acceleration counteract rationalisation
- More complex value chains, multi-layered division of labour
- Servitization
- Immaterial production and *Data Value Chains*

## Rebound 2) Work caused by digitalization

- Work of implementing and adapting technology
- Data care arrangements
- Labour shortages among IT professionals

## Rebound 3) Work of societal reproduction

- Work to decarbonize societies
- Increasing amount of care work

Das knappe Gut Arbeit  
Florian Butollo  
edition suhrkamp  
SV



# Countervailing factors

## Deindustrialization

- Fundamental loss of technological leadership or gradual shift?
- In spite of „deindustrialisation“ growth of total employment (Germany, 2024; 2025)



## Migration

- More than 1 mio immigrants p.a. necessary to counteract labour shortages (Germany)
- Labour shortages in Southern and Eastern Europe
- Trend towards restrictive migration policies

## Artificial Intelligence

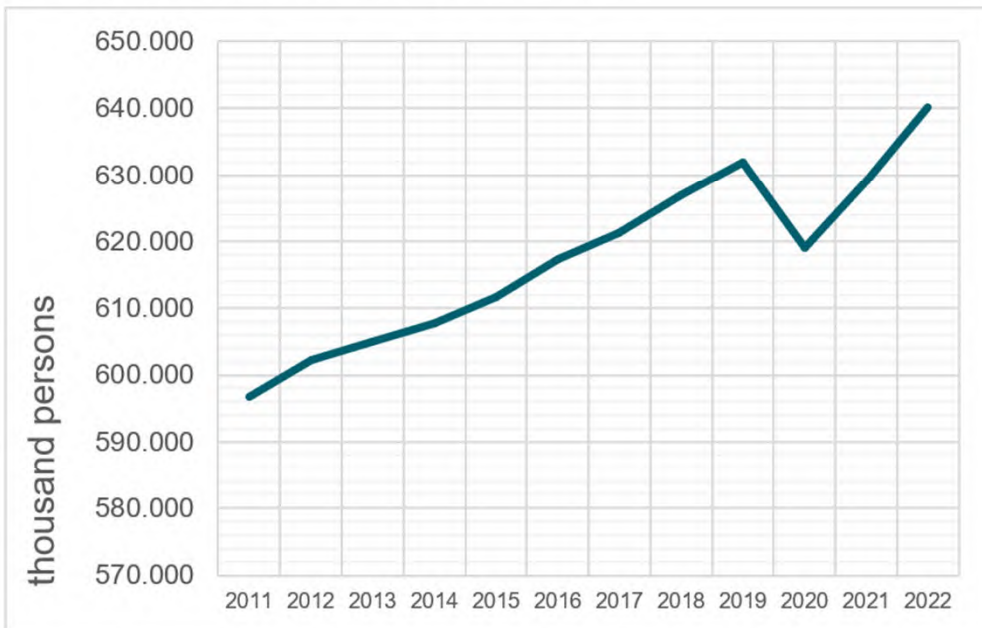
- No evidence for a decreased burden of work
- Evidence on more productive execution of single tasks, but a job amounts to more than the sum of single tasks
- Rebound effects: we work differently with AI, augmentation of work
- New requirements for human labour capacity

Project  
„GENKIA“



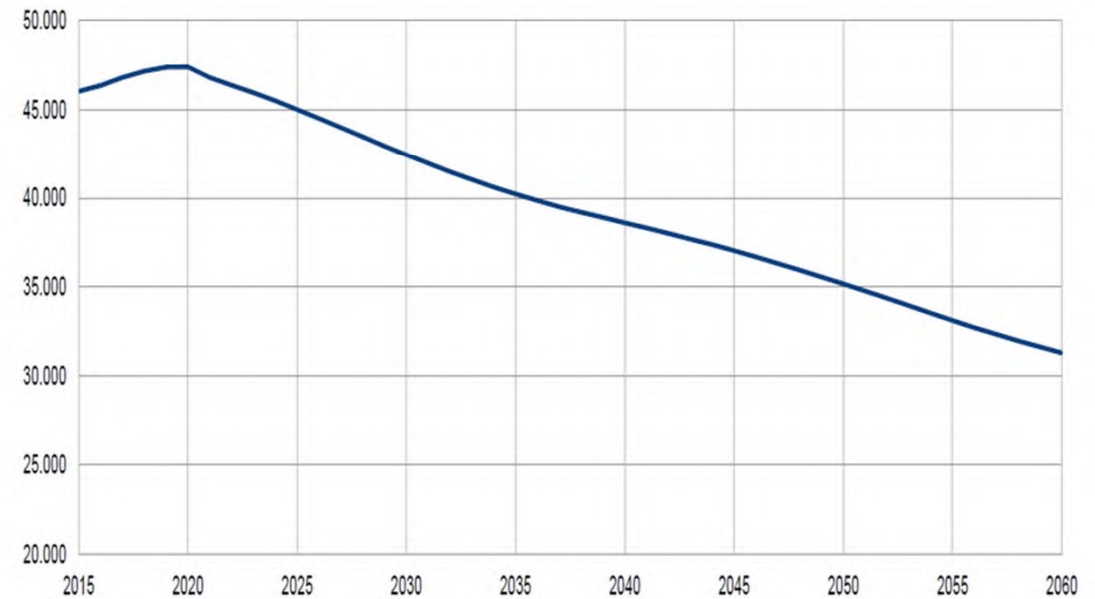
# Societal implications: Labour shortages, not mass unemployment

## Employment (OECD) 2011-2022



Source: OECD

## Forecast on working population, Germany 2020-60



Source: Fuchs et al. 2021,  
without immigration effects and with constant employment participation rate.

➤ **Similar developments in most OECD countries (see Causa et al. 2022)**

# So how to shape digitalization?

1. Address questions of work quantity, where productivity is rising!
2. Approve digitalization measures only if agreements on reducing the burden (“Entlastungsvereinbarungen”) of work are in place
3. Revitalize demands for a reduction of work hours!
  - As an instrument to reduce the burden of work, T-Zug of IG Metall
  - As an instrument to secure employment
  - As societal vision: short full time work for all?
4. Work toward that ends? The role of politics in reallocating work
  - Work that is needed: essential jobs (systemrelevante Arbeit), care work, critical infrastructure, work for socio-ecological transformation
  - Strengthening of „foundational economy“; mission-oriented investment and innovation programmes



# Thank you for your attention



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