



# Industry 4.0 and Just Transition

A brief introduction into  
IndustriALL's work on Industry 4.0





**INDUSTRY  
4.0**



**Working  
Conditions**

**JUST**

**TRANSITION**



**Climate  
Change**

# BACKGROUND

IndustriALL's four strategic objectives



**Advance workers' rights**



**Building union power**



**Confront global capital**



**Sustainable industrial policy**



# FROM RESEARCH TO ACTION I

IndustriALL: research + policy + strategic plan + action



- **World conference on Industry 4.0 (October 2017)**

- Adoption of Action Plan
- The Challenge of Industry 4.0 and the Demand for New Answers



- **Trainings and workshops (in 2018/2019)**

- Company Networks (i.e. SKF)
- Sectorial Activities (i.e., Global Conference ME)
- Regions (Global South)

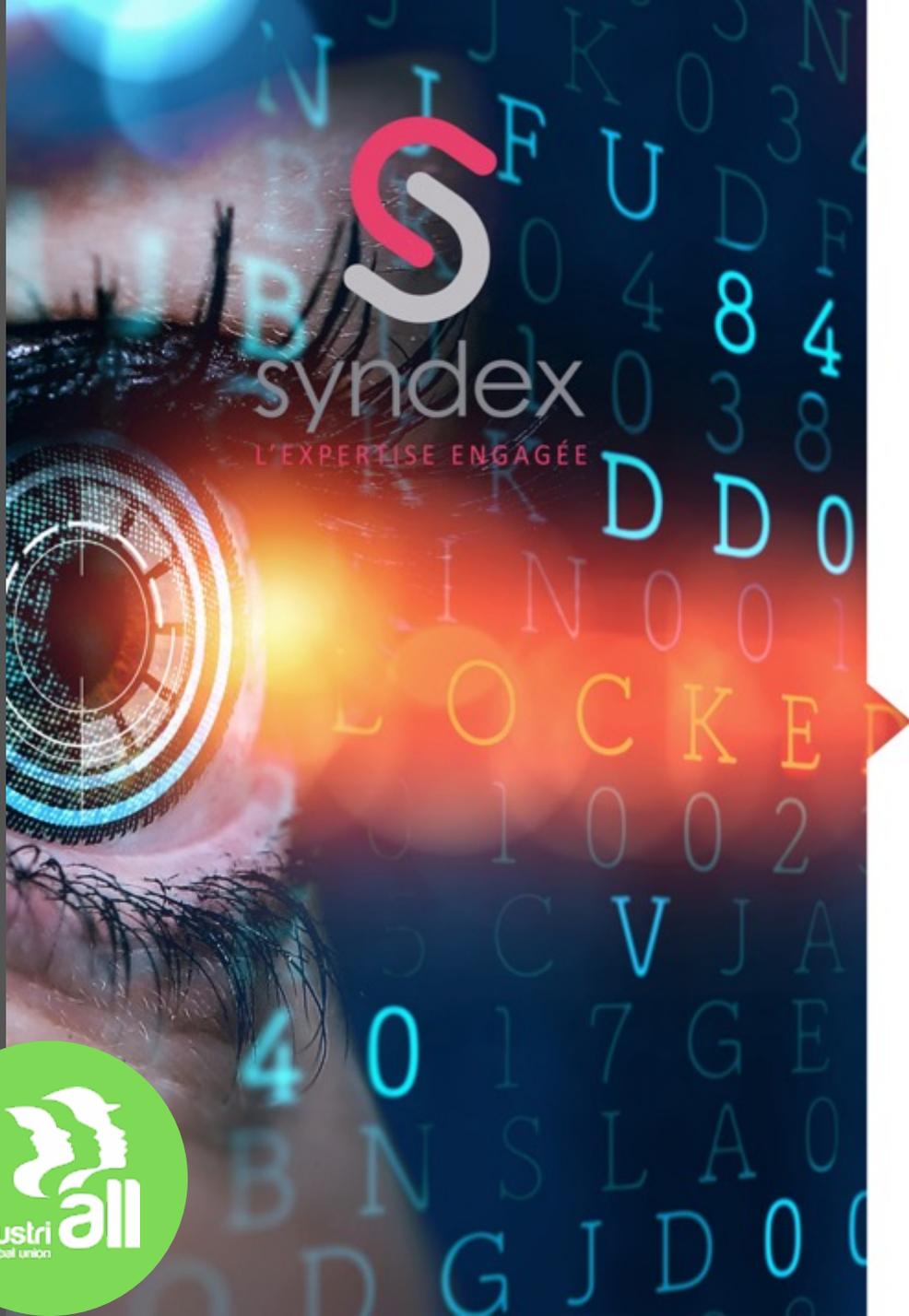


# FROM RESEARCH TO ACTION II

IndustriALL: research + policy + strategic plan + action

- **New research and update in 2021**
  - Working document May 2021: survey by sectors
  - Early 2022: Research document + presentation material (syndex)
- **Now: develop + roll out strategy**
  - In accordance with Congress action plan
  - internal debate + decisions
- **Experts' meeting + work in the regions**
  - Surveys
  - Trainings





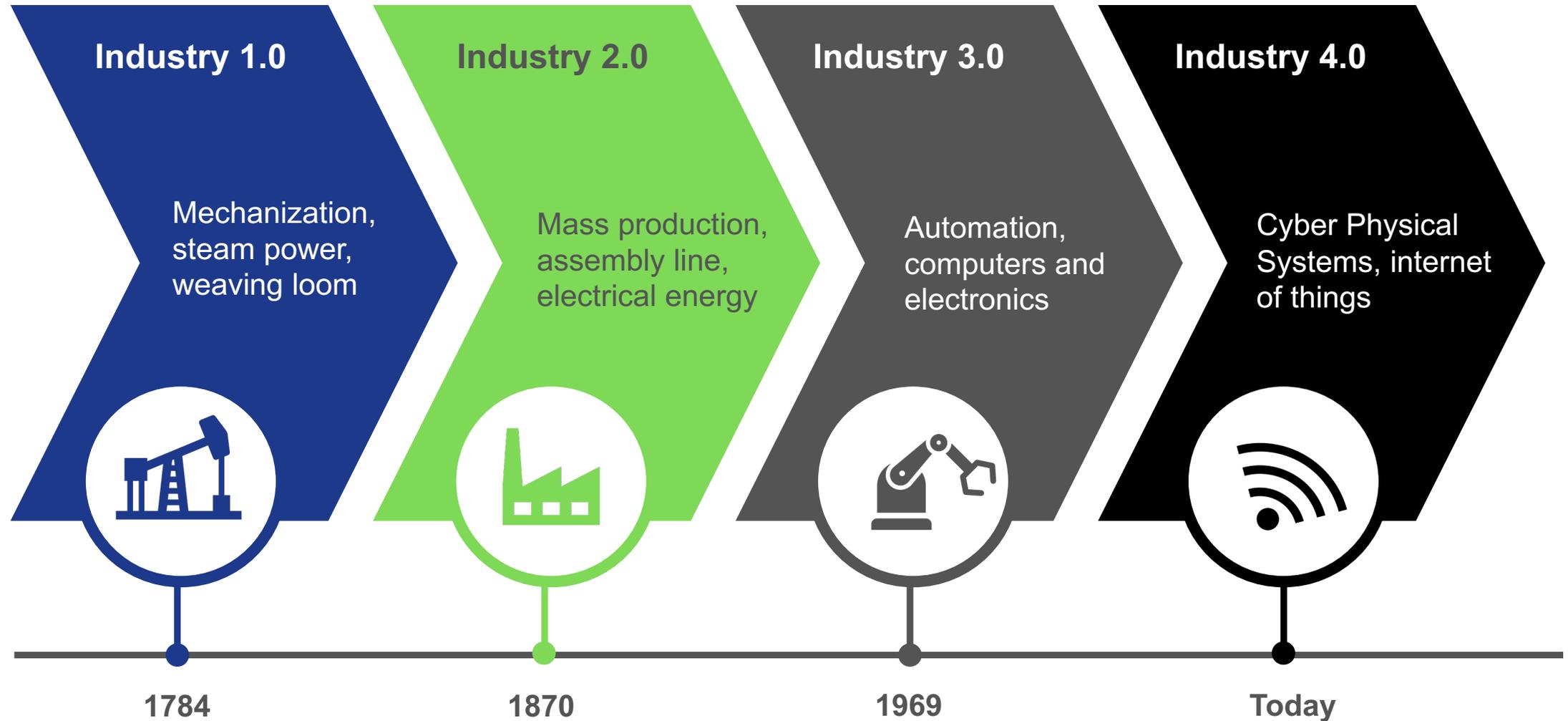
## The future of work and industry 4.0 in the face of multiple drivers of change

Research Results + political implications



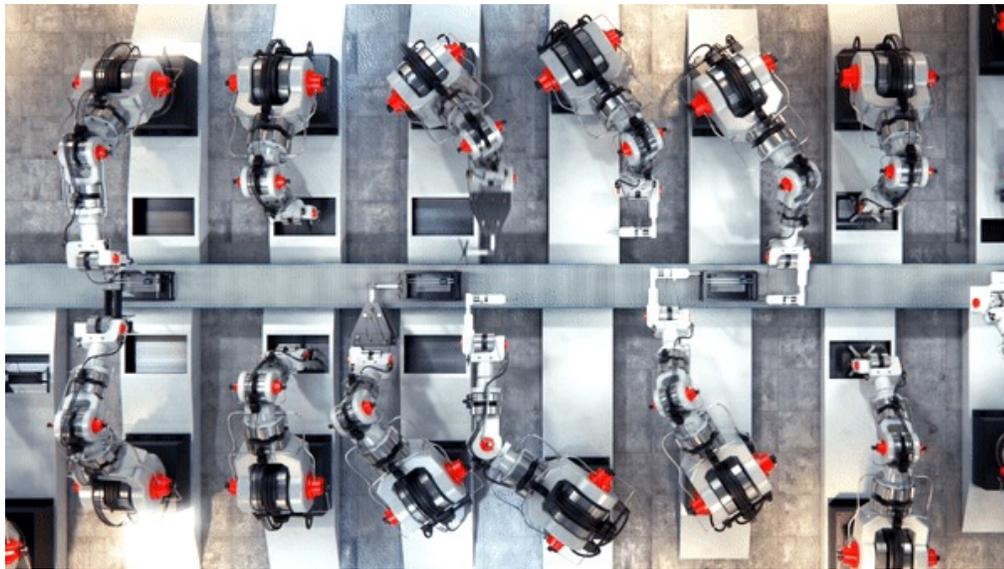
# FROM STEAM POWER TO INDUSTRY 4.0

more than 2 centuries of continuous changes



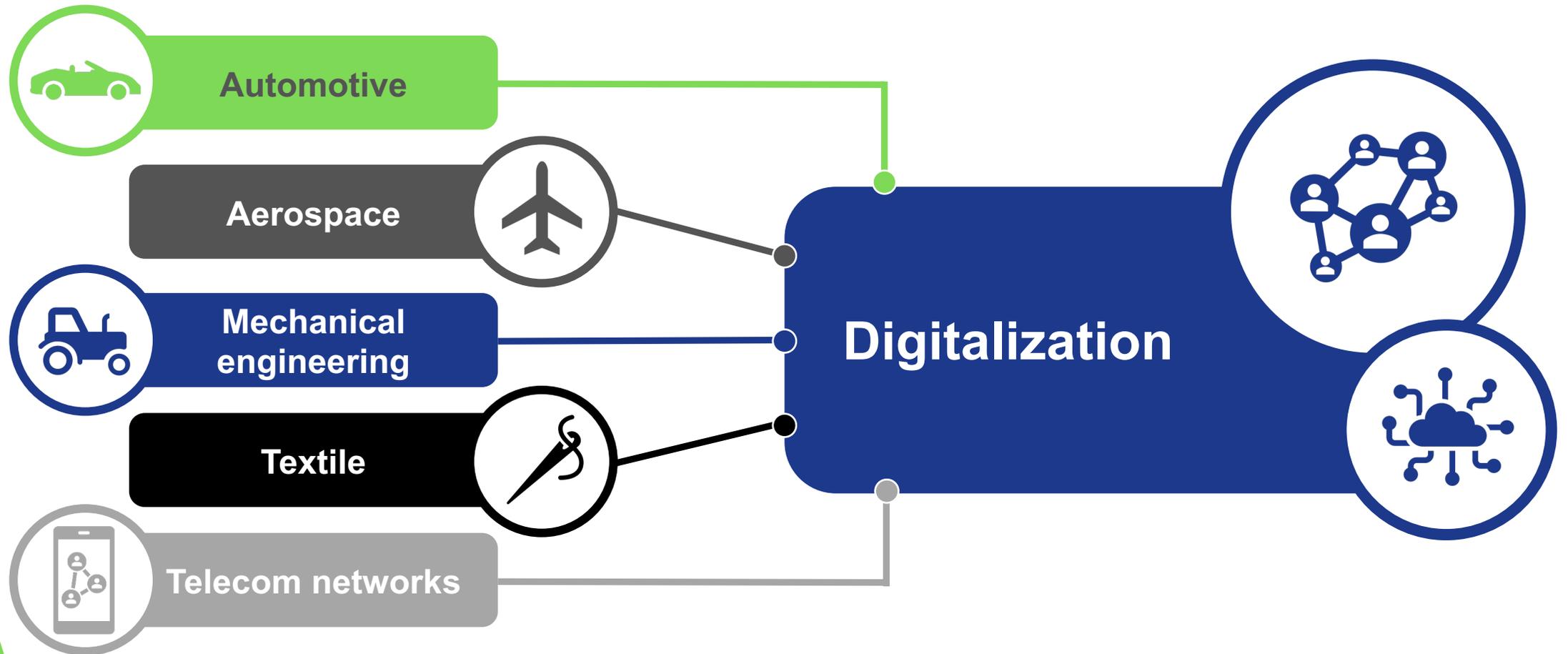
# ROBOTS TEACH EACH OTHER: CLOUD PICKING

## Hand-Eye-Coordination with Robots (Google)



- 14 robots learned simultaneously within ~800.000 pick attempts to grasp varied objects from a bin; a monocular camera is used
- several robots exchange their experiences
- also unknown objects are being picked, deviations of camera position are being compensated due to the robustness of the used algorithms

# EVERY SECTOR TRANSFORMED BY INDUSTRY 4.0 and DIGITALIZATION



# JOBS AT RISK – WE WORK ON ANSWERS



**Techno pessimism**

**40 to 50 % jobs at risk with automation**  
(McKinsey, Frey & Osborne, Roland Berger)

**Techno optimism**

**10 % to 15 % at risk with automation**  
(OECD, France Stratégie)



- New jobs are being created (data analysts...).
- Some jobs are being transformed due to digitalization (maintenance...).
- Others are destroyed by digitalization.

# NATIONAL POLICIES: INDUSTRY 4.0 STRATEGIES

The race is on: Competition on the back of workers?

USA

**“Radical innovation”**

**Bringing digital innovation into the physical world**

Start-ups for the internet of things and manufacturing renaissance

Europe, Specif. Germany

**“Engineering excellence”**

**Bringing engineering excellence into the digital world**

Visionary concepts integrating technology, society and economy

China

**“Speed”**

**Pragmatic application of quick-wins and long-term strategy**

Application of mature technologies  
strategic development of key technologies

Japan and South Korea

**”Ability to scale”**

**Innovation by application**

Massive construction of smart factories and very large manufacturers, strengthening products through domestic demand



# IndustriALL's APPROACH + ACTIVITIES

In this congress period happen:

- **Capacity Building**
  - Rollout research to staff + regions
- **Tool Box: i.e. training material**
  - Presentations, Trainings
- **Part of overall “The Future of Work and Just Transition”**
  - Added Research + Experts' meeting/s
- **IndustriALL: Sectors + Regions enabled**
  - Translate knowledge in action

