Bound to be transformed by digitalisation?
Changing nature of work at automotive subsidiaries in Hungary

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Panel: Jobs in a clean, future automobile industry
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Motivation and purpose

- Heavy debates regarding the impact of digital transformation (DT) on employment, work conditions and the nature of work – ever since the hype cycle began
- Contradictory hypothetical scenarios

- ETUI-sponsored research:
  contrast the hypothetical scenarios with empirical evidence
Research questions

• RQ1: Massive layoffs and technological unemployment?
• RQ2: Particularities of transformed job content

[Context]: automotive industry → pioneer in digitalisation

Transport equipment industry: main driver of growth, employment and export in Hungary

2016

- 30.2% of manufacturing production,
- 16.5% of manufacturing employment
- 37.1% of manufacturing export
Research method

• Field investigation: 10 automotive subsidiaries in Hungary
• high-flying firms (large, long-established, export-oriented, to some extent digitalized)
• 14 interviews: CEO, CIO, CTO, industry 4.0 project officer (expat), HR, trade union, work council, + industry association + industry trade union
• Semi-structured interviews, open-ended questions about
  • Particularities of the newly-deployed advanced manufacturing technologies
  • Motivation of technology deployment
  • Employment + job content + skill requirements
Massive technological unemployment?
New types of jobs + expansion in certain job categories

• automation system engineers,
• robot programmers,
• data scientists
• system integrators
• data security, data mining/big data analytics,
• development of the manufacturing execution system

New responsibilities have been added to old job categories:
• programming,
• expertise provision regarding robot manipulation,
• robotic path planning,
• human–robot interface design,
• sensor integration, sensor calibration
Knowledge workers?

Solution providers
Decision makers
Problem solvers
Process & manufacture?
Supervise & maintain
Not yet, but definitely...

Smart, labour-augmenting devices: "not your grandfather’s blue-collar factory workers"

+ screwdriver application + paperless manufacturing
Upskilling of tasks in support functions

- Maintenance worker
- Warehouse picking
- Line supervisor

+ production planning & scheduling
Nature of work

Digital control, smart sensors measuring every movement → stressful
Work becomes more interesting & creative

Automation of dull, time-consuming administrative tasks
„automation” of information search

More time for

Creative tasks
increased responsibilities
Takeaway messages

1. No massive layoffs … yet (in automotive)
2. Transforming composition of employment
3. Impact of technology on work is not straightforward
4. **Unit of analysis** for the impacts is not the **plant**’s role
   - peripheral implementer (manufacturing subsidiary)
   - lead company
   - strategic contributor
   - centre of excellence, etc.
   **BUT**
   the (knowledge-intensity, value adding capability of the) **task**
THANK YOU......

DO YOU HAVE ANY QUESTIONS?