



| Vorstand
Ressort Angestellte,
IT, Studierende

Industrial Policy in German ICT E&E Industry

Karl-Heinz Hageni

IG Metall Vorstand – Sector ICT

ICT EE World Conference in Malaysia, Petaling Jaya

12. June 2015



Germany in a sandwich position

**US “Digital-House“
smart services, disruptive innovation**



**high- developed
“Automotive and
Machine-House“
using electronics**



**China: New
Machine-House**




German ICT Electrical & Electronic Industry



Difficult situation for IT-Services and digital innovation

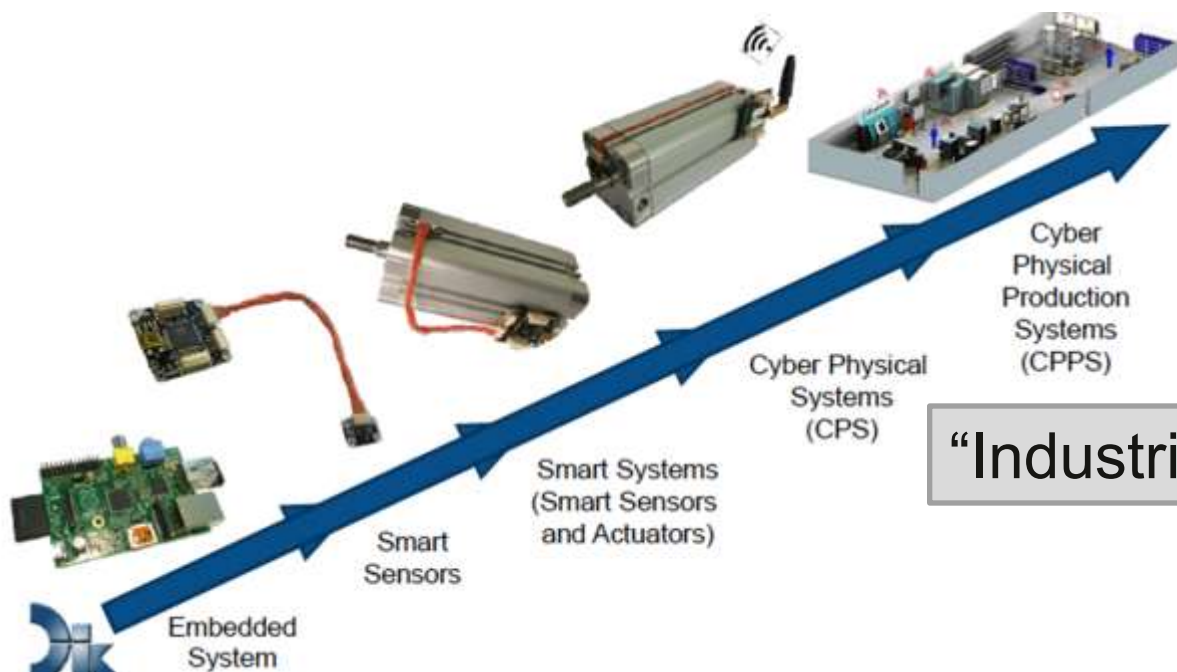


**Growth of industrial sectors
using electronics
(automotive, mechanical,..)**



Important decrease for electronic components and
communication equipment

German “Initiative Industrie 4.0“



“Industrie 4.0 that’s our beef“

Using **cyber-physical-systems** and digital innovation in automotive and mechanical-industry

“Industrie 4.0“ – issues and effects

Robotics Assistance



New Value-Chains



Mobile Devices on the Shopfloor



Remote and Virtual Services



Big Data Analytics



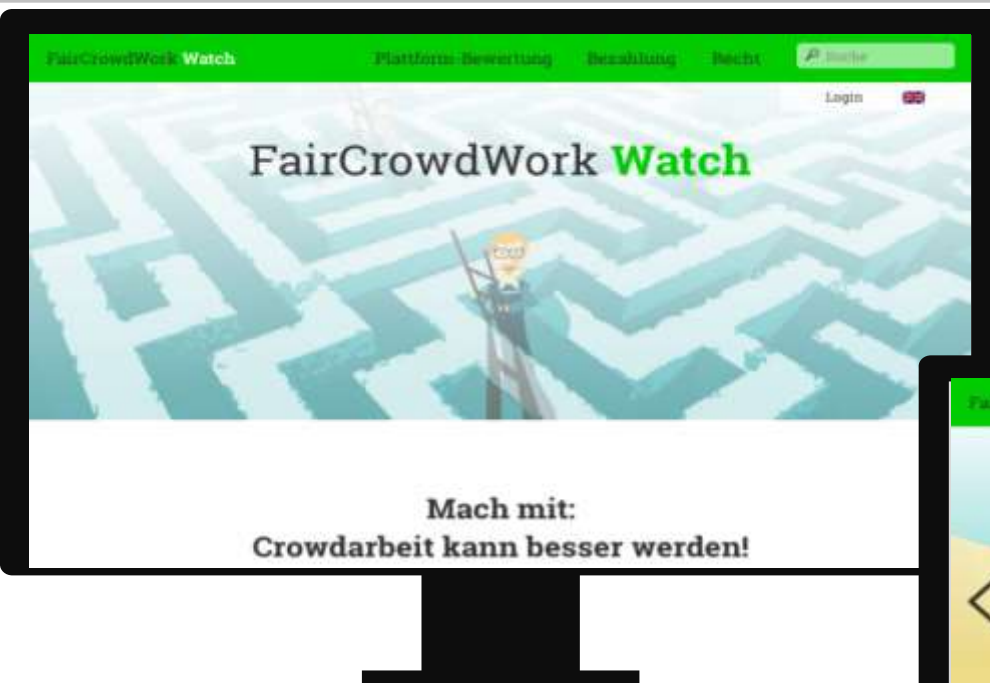
- ➔ Idea: Production with batch size 1
- ➔ First applications, supported by government department†
- ➔ Trade unions are involved in this process
- ➔ Our challenge: Build this new “Industrie 4.0“ with work humanisation and with sustainable employment
- ➔ New competences, Qualification, IT skills are more important



Bundesministerium
für Bildung
und Forschung



IG Metall Initiative : faircrowdwork.org



Digital platforms for jobs:
Crowdworker as
digital day labourer

Get involved:
crowdwork can be improved

