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From shareholder  
to stakeholder value

# INDUSTRY 5.0

human-centric, sustainable  
and resilient

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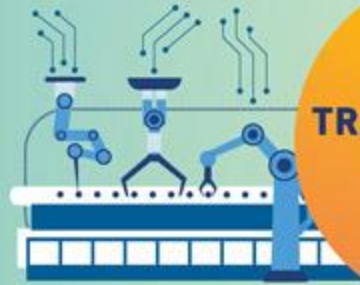
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# Digitalisation is ...



...  
**TRANSFORMING**  
European  
industry



...  
**ACCELERATING**  
production  
processes



...  
**CHANGING**  
the role of  
workers

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**Primary target**  
increase efficiency & productivity

This transformation is Industry 4.0



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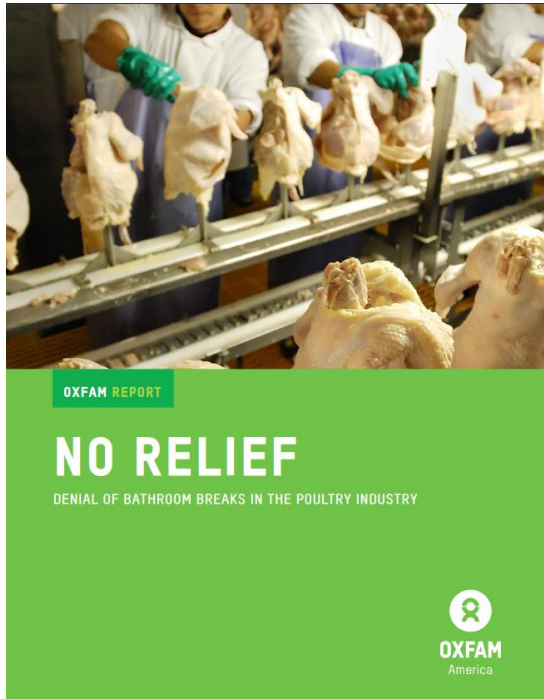


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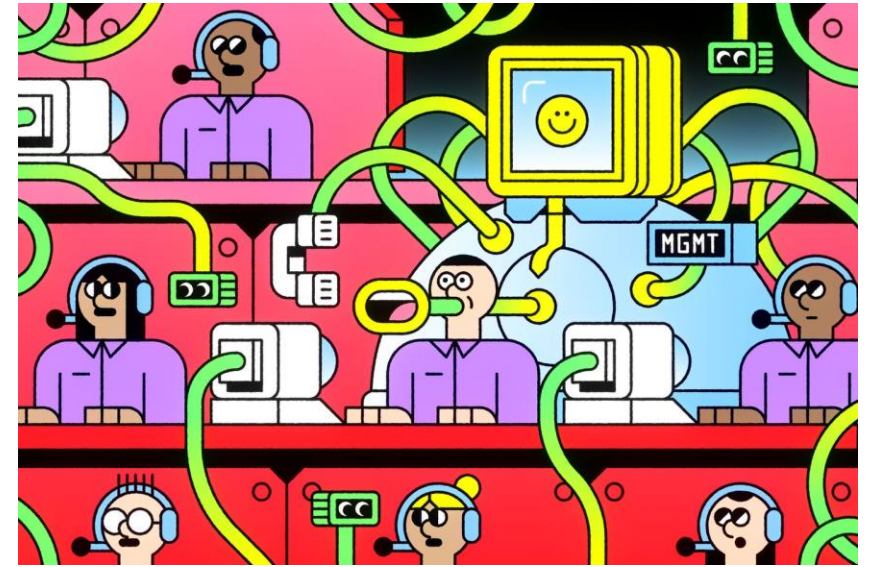


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# What about human...?



"Workers struggle to cope with this denial of a basic human need," the Oxfam report states. "They urinate and defecate while standing on the line; they wear diapers to work; they restrict intake of liquids and fluids to dangerous degrees; they endure pain and discomfort while they worry about their health and job security."



*76% of executives agree that organizations need to dramatically re-engineer the experiences that bring technology and people together in a more human-centric manner. (Accenture)*

# What about environment...?



# Is it sustainable and resilient?



*75% of companies report coronavirus has disrupted their supply chains (Forbes, 11/03/2020)*

*COVID surge in Southeast Asia disrupts global supply chains (DW, 05/09/2021)*

*The ship that blocked the Suez Canal may be free, but experts warn the supply chain impact could last months (CNBC, 29/03/2021)*

## Priorities of the European Commission (2019-2024)

- ✓ A European Green Deal
- ✓ An economy that works for people
- ✓ A Europe fit for the digital age
- ✓ Protecting our European way of life
- ✓ A stronger Europe in the world
- ✓ A new push for European democracy



Not a revolution

## Industry 5.0 ...



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**INDUSTRY 5.0** recognises the power of industry to achieve societal goals beyond jobs and growth to become a **RESILIENT PROVIDER OF PROSPERITY**, by making production **RESPECT THE BOUNDARIES OF OUR PLANET** and placing the **WELLBEING OF THE INDUSTRY WORKER** at the centre of the production process.



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# Why Industry 5.0?



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# Attracting the best talents

- Scarce skillsets in the digital age
- Young people want employers who share their values

*By 2025, 75% of the workforce will be millennials.  
75% of millennials would take a pay-cut to work for a socially responsible company.  
40% of millennials said they have taken one job offer over another because of the company's sustainability.  
Nearly half of Generation-Z says they would prioritize a job offer that gives them mobility, freedom, and flexibility.*

**CONE COMMUNICATIONS** 2016 Cone Communications  
**MILLENNIAL EMPLOYEE ENGAGEMENT STUDY**

**THREE-QUARTERS OF MILLENNIALS WOULD TAKE A PAY CUT TO WORK FOR A SOCIALLY RESPONSIBLE COMPANY, ACCORDING TO RESEARCH FROM CONE COMMUNICATIONS**

88% say their job is more fulfilling when employers provide opportunities to make a positive impact

**Article**  
**The Deloitte Global Millennial Survey 2020**  
Millennials and Gen Zs hold the key to creating a "better normal"  
Deloitte research reveals "resilient generations." In the face of unprecedented health and economic disruption caused by the COVID-19 pandemic, millennials and Gen Zs express resolve and a vision to build a better future.

[in](#) [f](#) [t](#) [p](#) [e](#)

*World Economic Forum: creativity #3 most important skill in 2020, after critical thinking and problem-solving. 50% of all employees will need reskilling by 2025, as adoption of technology increases*  
*LinkedIn: creativity is #1 top skill companies need.*



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# Sustainable Industrial Production

- resource efficiency = doing “better with less”
- adopt full product life-cycle perspective
- improve environmental outcome
- help reach Sustainable Development Goals (SDGs)  
“Industry, Innovation and Infrastructure” (#9) and  
“Responsible Consumption and Production” (#12)

*Industry is responsible for 15 % of the EU's emissions.  
Between 1990 and 2019, the EU industry reduced its CO2 emissions by 40% (compared to 25% overall reduction).  
Between 1990 and 2016, the energy efficiency of industry in the EU improved by 38%, or 1.8% per year.*



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# Industry 5.0: Making It Happen

Concrete **actions** are needed, in a wide range of **policies**, including:

- **environment:** industrial waste prevention, secondary materials markets, ...
- **technology:** R&D for human-centric technologies, ...
- **education:** develop STEM skills, women's engagement, entrepreneurial skills, ...
- **employment:** evolving skills needs & employability, labour market transformation, ...
- **social:** social security, inclusiveness, ...
- **regional:** supporting European regions facing major transitions, ...
- **taxation:** tax policies for industry promoting green, human-centric industry



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# How EU-funded research contributes to Industry 5.0

Some examples

1

**BEYOND 4.0**



Examining the future impact of new technologies on **JOBS, BUSINESS MODELS AND WELFARE**

2

**HuMan Manufacturing**



Demonstrating ways **FACTORY WORKERS AND AUTOMATION** can operate in harmony, increasing productivity, quality, performance, satisfaction and safety

3

**KYKLOS 4.0**



Showing how cyber-physical systems, product life-cycle management, life-cycle assessment, augmented reality, and artificial intelligence technologies and methods can transform **CIRCULAR MANUFACTURING**

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## Find out more



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[https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50\\_en](https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50_en)

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