



From shareholder
to stakeholder value

INDUSTRY 5.0

human-centric, sustainable
and resilient

Martin Huemer

Policy Officer

Industry 5.0 unit, DG R&I

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#Industry5.0

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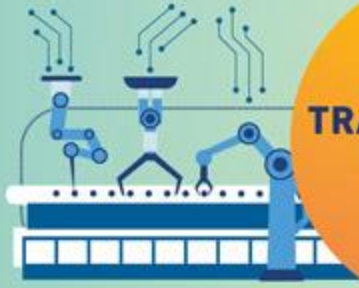
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Technology-driven

Digitalisation is ...

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)

While 52% of companies plan to cut or defer investments because of COVID-19, just 9% will make those cuts in digital transformation. (PwC)



...
TRANSFORMING
European industry



...
ACCELERATING
production processes



...
CHANGING
the role of workers

This transformation is Industry 4.0

Primary target
increase efficiency & productivity



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Human-centric

Industry 5.0 ...



... promotes talents, diversity and empowerment

... is agile and resilient with flexible and adaptable technologies

... leads action on sustainability and respects planetary boundaries

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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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Industry: Fit for the Future

- **Skills in the digital age:**
scarce skillsets
- **Attracting the best talents:**
young people want employers who share their values

CONE COMMUNICATIONS 2016 Cone Communications
MILLENNIAL EMPLOYEE ENGAGEMENT STUDY

Article
... A DAY CUT

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

Why millennials matter

The millennial generation, born between 1980 and 2000 now entering employment in vast numbers, will shape the world of work for years to come. Attracting the best of these millennial workers is critical to the future of your business. Their career aspirations, attitudes about work, and knowledge of new technologies will define the culture of the 21st century workplace.

Millennials matter because they are not only different from those that have gone before, they are also more numerous than any since the soon-to-retire Baby Boomer generation – millennials already form 25% of the workforce in the US and account for over half of the population in India. By 2020, millennials will form 50% of the global workforce.

*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.*



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Sustainable Industrial Production

- resource efficiency = doing “better with less”
- adopt full product life-cycle perspective
- improve environmental outcome, improve material security
- 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.
In 2015, more than 1% of the global electricity supply was consumed by ICT networks.*



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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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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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https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50_en



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