



GROWTH THROUGH  
TRANSFORMATIONAL CHANGES

in the industrial sector, supported by the EU Green Deal, a commitment and  
proactive participation of workers in establishing the changing working environment



# BACKGROUND REPORT

Green Transition Industrial Sector



Co-funded by  
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## Introduction

The project “*GTC - Growth through transformational changes in the industrial sector influenced by the EU Green Deal and digitalization and proactive participation of workers in restructuring the changing working environment*” aims to support the exchange of experiences and expertise among workers, unions and employers in the context of the twin transitions (green and digital) in the industrial sector in different EU countries. Its main goal is to analyse regional/national issues and challenges in the governance models of European Green Deal in order to identify challenges and potentials for improvement with high workers participation and development of recommendations for implementation of innovative models and practices. Furthermore, the project aims to improve decision-making coordination between unions, employers, and other stakeholders involved in changes in the world of work influenced by twin transitions in the industrial sector through capacity building activities. Finally, the project activities will raise awareness, stimulate debate, and promote information sharing on the impact of the twin transitions on workers and businesses with focus on the industrial sector in 7 partnering countries including Poland, Slovakia, North Macedonia, Serbia, Montenegro, Romania and Spain.

### Twin transition – digitalisation and greening of the European economy

A twin transition approach recognizes that there is opportunity for technology and data to drive sustainability goals. Twin transition strategy combines critical functions to increase efficiency and productivity. The twin transition can make a positive impact by ‘greening’ technology, data assets and infrastructures while accelerating sustainability across the organization. In the given context twin transition means both decarbonisation and digitalisation processes that are intertwined at policy and implementation level to bring multiple benefits.

At the EU policy level there are two separate sets of strategies dedicated to decarbonisation and digitalisation which – combined – might bring the effect of twin transition.



The **European Green Deal**<sup>1</sup> is the European Sustainable Growth Strategy. It is a package of policy initiatives aimed at enabling European citizens and businesses to benefit from sustainable green transition, realising the goal of no net emissions of greenhouse gases by 2050 in the EU and decoupling economic growth from resource use. The European Green Deal contains an action plan to enable more efficient use of resources through the transition to a clean, closed-loop economy, as well as to prevent biodiversity loss and reduce pollution. The action plan identifies the necessary investments and the financial tools available to implement it. It also explains how to ensure a transition that is just and inclusive. European climate law has also been proposed to transform this political commitment into a legal obligation. Achieving the objectives of a European Green Deal will require action in all sectors of our economy, such as:

- investment in environmentally friendly technologies,
- promoting industrial innovation,
- introducing cleaner, cheaper and healthier forms of private and public transport,
- decarbonisation of the energy sector,
- ensuring greater energy efficiency in buildings,
- working with international partners to improve global environmental standards.

With the setting of ambitious climate and economic targets, the European Union declares to provide financial support and technical assistance to those who are most affected by the transition to a green economy. This will be done through a **just transition mechanism** (more in the next section). It will provide EUR 100 billion for the regions most affected between 2021 and 2027.

Responding to the way digital technology is changing the lives of EU citizens, one of the European Commission's priorities for the period 2019–2024 is to create a Europe fit for the digital age, leading the transition to a healthy planet and a new digital world through its **European Digital Strategy 2020–2025**<sup>2</sup>. Launched in February 2020, the Strategy aims to empower people with a new generation of

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<sup>1</sup> [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en)

<sup>2</sup> <https://digital-strategy.ec.europa.eu/en/policies>

technologies, helping to support the 'just transition' to a climate-neutral Europe via the European Green Deal.

As part of its **Digital Services Act package**<sup>3</sup>, published on 15 December 2020, the Commission proposed two legislative initiatives to upgrade rules governing digital services in the EU: the Digital Services Act (DSA) and the Digital Markets Act (DMA). These initiatives will change the way companies offer and use digital services. In response to the rapid development of platform work in the EU, after consulting with the social partners the Commission proposed new rules to **protect people working through digital platforms**<sup>4</sup> in December 2021. The Council of the EU adopted its position on the proposals in June 2023, and will enter into negotiations with the European Parliament.

On 9 March 2021, the Commission issued its Communication setting out the vision for **Europe's digital decade**<sup>5</sup>, outlining a clear compass towards a successful digital transformation by 2030 in areas such as connectivity, skills and digital public services. In 2020, the European social partners approved an autonomous framework agreement on digitalisation<sup>6</sup>. In 2023, the European-level social partners approached to negotiate the Directive on telework and the right to disconnect. Unfortunately, these efforts failed due to stalemate in the negotiation process and the unions requested the European Commission to proceed with its own proposal of the draft bill<sup>7</sup>.

In June 2020, the **European Social Partners Framework Agreement on Digitalisation**<sup>8</sup> has been signed by BusinessEurope, SMEunited, CEEP and the ETUC (and the liaison committee EUROCADRES/ CEC) – as of a few autonomous initiatives at the EU level. The overall goal is to achieve a consensual transition by a successful integration of digital technologies at the workplace and by reaping

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<sup>3</sup> <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>

<sup>4</sup> [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_21\\_2944](https://ec.europa.eu/commission/presscorner/detail/en/IP_21_2944)

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021DC0118>

<sup>6</sup> [https://www.etuc.org/system/files/document/file2020-06/Final%2022%2006%2020\\_Agreement%20on%20Digitalisation%202020.pdf](https://www.etuc.org/system/files/document/file2020-06/Final%2022%2006%2020_Agreement%20on%20Digitalisation%202020.pdf)

<sup>7</sup> <https://www.epsu.org/article/employers-reject-eu-cross-sector-telework-rights-implement-sectoral-agreement>

<sup>8</sup> [https://www.etuc.org/system/files/document/file2020-06/Final%2022%2006%2020\\_Agreement%20on%20Digitalisation%202020.pdf](https://www.etuc.org/system/files/document/file2020-06/Final%2022%2006%2020_Agreement%20on%20Digitalisation%202020.pdf)

the opportunities as well as preventing and minimising the risks for both workers and employers and to ensure the best possible outcome for both employers and workers.

## **Twin transition – new opportunities and challenges for workers**

Due to the fact the concept of twin transition is relatively new and is drawn mostly from two separate sets of policies at the EU level on: decarbonisation and digitalisation, there is still unknown how twin transition proceeds at company level and what are its tangible impacts on working conditions, employment, productivity and social dialogue. Research literature suggests that the twin transition can have both positive and negative impacts on workers and businesses. At the current stage only some dimensions for further studies could be identified: work organisation (such as worker autonomy vs AI surveillance), work content (a shift to more complex non-repetitive tasks vs a “trap” of precarious low-skilled service jobs, especially in platform economy), skills (upskilling opportunities vs the risk of exclusion due to skills becoming obsolete and insufficient availability of training), and working conditions (easier and safer physical tasks vs psychosocial risks related to permanent connectivity).

In the digitalisation context, companies can achieve gains in productivity (and subsequently, profit) by increasing employee workload or maintaining working conditions that are detrimental to employee health and well-being (including low pay, surveillance, etc.). Alternatively, gains achieved through digitalisation can be shared with or redistributed among the workforce by improving work-life balance and/or allocating some working time for upskilling (e.g. a 4-day work week and a “training Friday”). On the other hand, the twin transition (particularly digitalisation) can also contribute to increasing inequalities and labour market polarisation. While highly skilled and mobile workers can reap the benefits of digitalisation more easily, workers with insufficient skills and/or situated in collapsing industries face increasingly precarious working conditions, threats of dismissal, or exclusion from the labour market entirely.

In comparison, the green transition is having a much narrower, although potentially very significant, effect on workers in just a handful of sectors (e.g. mining), concentrated in just a few regions. These different impacts require



different policy responses—while re- and up-skilling is crucial for the job or occupation upgrades deriving from digitalisation, the greening push needs a more comprehensive set of policies to rebuild the competitiveness and the social backbone of the hardly-hit regions.

Digitalisation's impact on the workplace is also significant. Besides the new tasks and skills necessary to implement them, digital technologies change the way work is managed (in the most extreme form via AI-based algorithmic management solutions). Working conditions are also evolving, both in blue collar (e.g. co-working with robots) and white collar (e.g. telework) jobs. Digitalisation also facilitates the push towards the flexibilisation of the workforce, marked by the proliferation of more precarious forms of employment (including platform work). Older, lower-skilled, and low-income workers are a particularly vulnerable group in the face of the twin transition. While women are generally well-equipped to take on changes required for managing the digital and green transitions, the risks of discriminatory practices (both old and new) remain—most notably, embedding discrimination in algorithms.

Studies conducted so far also suggest that where employees were involved, technology adoption led to generally positive outcomes for the company workforce, including a shift to more complex and interesting tasks, upskilling and higher labour market competitiveness, improved working conditions, and/or better work-life balance. The impact on the companies themselves was also positive, including increased productivity, improved product or service quality, and/or employee satisfaction. Employees can be involved either indirectly (e.g. via trade unions that voice their concerns through collective bargaining or works councils that negotiate with the employer) or directly (e.g. via board representation, ballots, or simply day-to-day informal interactions with the management). Nevertheless, there are sizeable differences in employee involvement levels across countries, sectors, and sizes of establishment. Also collective action is particularly challenging in sectors most exposed to the (negative) effects of digitalisation (most notably – platform work) and greening (especially mining).

Despite, this conclusions, current practices in twin transition show that social partners' involvement in policy-making related to the twin transition is generally seen as insufficient, which is due to lack of legal obligation at both national and EU level to engage social partners in digital and green transition (and there is a

variation across countries in this regards as well), and there is also insufficient capacity on the side of the social partners to answer the challenges posed by twin transition. The latter refers mostly to the trade unions that face decreasing membership rates and representativeness (partly owing to a restructuring of sectors with high union density to sectors characterised by low levels (or a lack) of unionisation), as well as unsupportive institutional environments, rigid organisational structures and insufficient access to funding and capacity-building opportunities. Therefore, strengthening the social partners is of paramount importance in order to be able to shape the policies at both national and EU-level, as well as involving workers in implementation of digital and greening practices at company level.

### Recommendations for social dialogue

According to the authors of the report “Unionisation and the twin transition. Good practices in collective action and employee involvement” the twin transition might bring a threat of increasing inequality and labour market polarisation. Therefore, it is of paramount importance to ensure fair distribution in terms of the benefits gained through digitalisation, as well as the just imposition of new costs arising from the twin transition. For example, while highly skilled and mobile workers can benefit from digitalisation, workers with insufficient skills and/or situated in collapsing industries increasingly face risks of precarious working conditions, dismissals, or labour market exclusion. The situation of the most vulnerable (especially low-skilled and elderly) workers must be high on the policy agenda. Authors of the report propose the following recommendations:

- Step up efforts aimed at mitigating the negative effects of the digital (i.e. digital inclusion policies) and the green transition (e.g. tackling energy poverty) on vulnerable groups.
- Embed legal mechanisms at the EU level to push underperforming Member States to improve institutional conditions for social dialogue.
- Step up EU-level sectoral social dialogue and extend it beyond content (i.e. industrial) policies to discuss sector-specific social outcomes (especially on employment).
- Consider including social (labour market) goals in sectoral policies.



- Address important policy gaps (such as the AI impact on employment and workplace) via EU-level sectoral and cross-sectoral agreements.
- Improve vertical coordination between EU and national social partners.
- Provide more direct funding and support to social partners (particularly trade unions), including funding for research, training, and expertise building, incentive schemes to develop innovative practices, infrastructure for good practice and knowledge exchange, platforms for dialogue on future-oriented subjects.
- Support trade union action directed at workers and workplaces (micro-level), such as developing or sharing tools, practices, and guidelines for successful transitions, or organising and funding training.
- Conduct thorough research on the Information and Consultation Framework Directive state of implementation to identify key challenges and suggest improvements to the Directive and further action.
- Strengthen the right to information and consultation in transnational corporations by reinforcing the EWC's access to court and adequate sanction system.

## References

- Bednorz, J, Sadauskaitė, A, et al, 2022, *Unionisation and the twin transition. Good practices in collective action and employee involvement*, Publication for the committee on Employment and Social Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg  
[https://www.europarl.europa.eu/RegData/etudes/STUD/2022/733972/IPOL\\_STU\(2022\)733972\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2022/733972/IPOL_STU(2022)733972_EN.pdf)
- Eurofound, 2021a, Digitisation in the workplace. Publications Office of the European Union, Luxembourg.  
[https://www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/ef21001en.pdf](https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef21001en.pdf)
- Eurofound, 2021b, The digital age: Implications of automation, digitisation and platforms for work and employment, challenges and prospects in the EU series. Publications Office of the European Union, Luxembourg.  
[https://www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/ef21007en.pdf](https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef21007en.pdf)
- Eurofound, 2021c, Distributional impacts of climate policies in Europe. Publications Office of the European Union, Luxembourg.  
[https://www.eurofound.europa.eu/sites/default/files/ef\\_publication/field\\_ef\\_document/ef20037en.pdf](https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef20037en.pdf)
- Eurofound, 2021d, Impact of digitalization on social dialogue and collective bargaining. Research digest.  
<https://www.eurofound.europa.eu/data/digitalisation/research-digests/impact-of-digitalisation-on-social-dialogue-and-collective-bargaining>
- Eurofound, 2021e, Social partners going digital: Using digital tools and adapting social dialogue processes. Publications Office of the European Union, Luxembourg
- European Commission, 2021, Digital Economy and Society Index. (DESI) 2021: Integration of digital technology.
- International Labour Organization, 2015, Guidelines for a just transition towards environmentally sustainable economies and societies for all.  
[https://www.ilo.org/wcmsp5/groups/public/@ed\\_emp/@emp\\_ent/documents/publication/wcms\\_432859.pdf](https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf)
- International Labour Organization, 2019, Skills for a greener future: A global view based on 32 country studies.  
[https://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/documents/publication/wcms\\_732214.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_732214.pdf)

- Muench, S., Stoermer, E., Jensen, K., Asikainen, T., Salvi, M. and Scapolo, F., Towards a green and digital future, Publications Office of the European Union, Luxembourg, 2022, <https://publications.jrc.ec.europa.eu/repository/handle/JRC129319>
- World Economic Forum, 2020, The future of jobs report 2020. Geneva, Switzerland: World Economic Forum.
- World Economic Forum, Boston Consulting Group, 2019, Towards a reskilling revolution: industry-led action for the future of work. World Economic Forum, pp 1-93.





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