

Budget Heading 04.03 01 08

IMPROVING EXPERTISE IN THE FIELD OF INDUSTRIAL RELATIONS

VP/2018/004/0066



DISCUS

Digital Transformation in the Construction Sector: Challenges and Opportunities

PROJECT PRESENTATION

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Fondazione Di Vittorio-FDV

FINAL CONFERENCE

25 October 2021

Partners of the DISCUS Project



- Italy
- Spain
- France
- Germany
- Belgium
- Bulgaria



Non ti lasciamo solo

European Federation
of Building
and Woodworkers



Associated organisations



Project Consortium

- **Trade Unions:** Fillea-Cgil (→ co-applicant), CGIL Nazionale, Federation Dutch Trade Unions (FNV) (l'Olanda) EFBWW-European Federation of Building and Woodworkers (→ associate organizations).
- **Research institute:** FDV (→ applicant), la Fundacion 1° de Mayo (Spagna) (Association travail emploi Europe société-ASTREES (Francia), Arbeitsforschung und Transfer e.V. (Germania), Laboratoire d'Etudes sur les Nouvelles formes de Travail, l'Innovation et le Changement (LENTIC), Université de Liège (Belgio), Workers Educations and Training College (WETCO) (Bulgaria) → (associate organizations).



The project network includes **research institutes** and **trade unions** to adopt a **comprehensive approach** able to consider digital transition at both a theoretical and practical level.



Project Consortium: Researchers

Country	National Reports
Belgium	Naedenoen F.
	Franssen M.
	Wuidar S.
	Pere M.
Bulgaria	Atanasova I.
	Simeonova Y.
	Toneva S.
France	Teissier C.
Germany	Harbecke T.
	Mühge G.
Italy	Rugiero S.
	Di Nunzio D.
	Brachini N.
	De Angelis G.
Spain	Cruces Aguilera J.C.
	de la Fuente Sanz L.



Why DISCUS Project?

Construction is one of the biggest industrial sectors of the EU economy

- ❑ 9% of EU GDP
- ❑ Around 18 million workers
- ❑ Multiplying effect of the demand for building
- ❑ 40% of EU energy consumption
- ❑ 36% of total green-gas emissions
- ❑ 233 million residential and commercial buildings
- ❑ Circular economy

Construction industry as a key sector to restart the Europe's economy after COVID-19 according to the Recovery plans

Over the last few years the construction sector has been revolutionized by important drivers of change that are simultaneously at play:



The transition to a **sustainable construction** in a **climate neutral economy**.



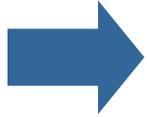
The evolution of technologies and **digitalization** that has an impact on all the construction processes.



Digitalization and technological change, and their combining with social and environmental issues, are major challenges for industrial relations and social dialogue in Europe.

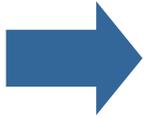


Theoretical framework



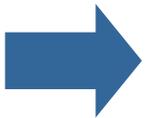
Transition from an economy segmented into phases to a **network economy** in which the various players are **connected** (Castells, 1996; Liu & Chua, 2016).

- Digitalization is a process that allows the connection of all the phases (and players) in the value chain.



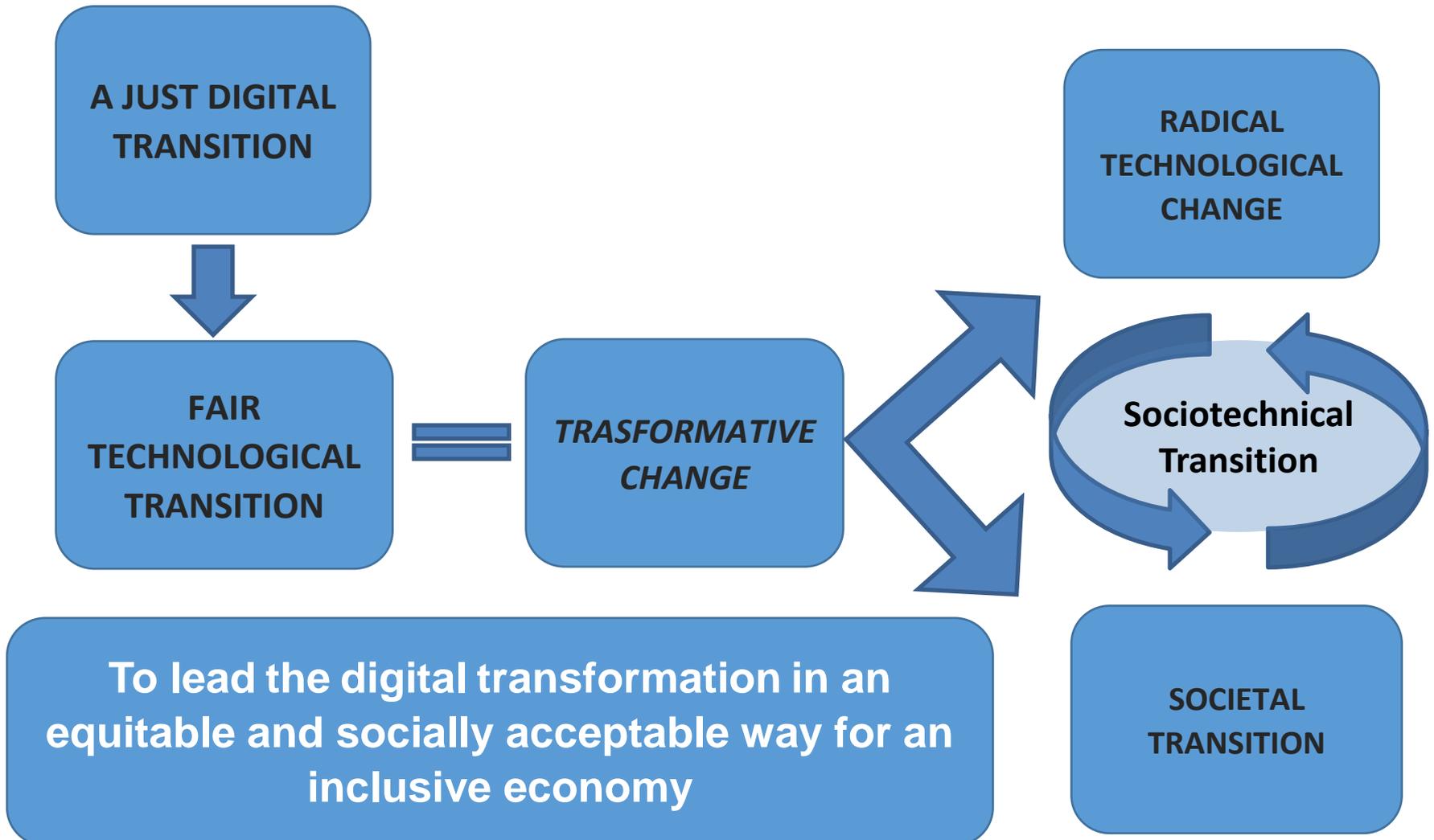
Lean production: a flexible and rational organization of the productive process.

- Digitalization accompanies and supports the industrialization process oriented towards lean production and a “lean construction site” (Björnfot, A. & Stehn L., 2004).



Sociotechnical transition: systemic change (social, economical, technological, environmental, cultural change) multilevel perspective (Bijker et al., 1987; Smith & Stirling, 2010; Geels, 2002).

A "just transition" pathway to digitalization





PROJECT OBJECTIVES

- To address technological change and the digitisation of the economy it is necessary to orient change through a **Just Transition** in terms of **outcomes** (decent work for all in an inclusive society) and of **process** (managed transition) (ILO, 2018).
- In particular, **social dialogue and collective bargaining** are key tools for managing change (ITUC, 2017): for the anticipation and implementation of digitalization and technological changes so as to reduce the risk of unemployment and promoting jobs that are high skilled, green and good, respecting the dignity of the workers (“**decent work**”) and social inclusion.
- Given the multi-dimensional and complex nature of digitalization and technological change which create highly diversified organizational forms, it needs a **multi-level governance** of the policies and measures in support of digital innovation.
- **Social dialogue** – at the European, national, sectoral, regional level – **as a form of governance itself** is a crucial factor in facing the challenges arising from the digital transition, identifying and checking the consequences (both expected and unforeseen) and the resulting risks (regarding employment, the health and safety of workers, inequality and social exclusion with respect to the territorial impact).
- From this point of view, it is therefore fundamental to increase the role of social dialogue, first and foremost by strengthening its inclusive nature, through the promotion of an enlarged (**multistakeholder vision**), based on the involvement of a wide range of potential protagonists: first of all, the associations representing the world of work, businesses and public institutions, but also those of experts, environmental organisations and civil society.

Action Implementation: project activities

The project, divided into two years of activity, was articulated in the following phases corresponding to modular objectives:

YEAR 1



KICK OFF MEETING

13 MARCH 2019
VIDEOCONFERENCE

Set-up of the SC Structure and methodology for the baseline report and national Reports
Organisation of the first international workshop

BASELINE REPORT + NATIONAL REPORTS

SPRING 2019
BASELINE REPORT MADE BY FDV

FIRST TRANSNATIONAL WORKSHOP

3 JULY 2019
MADRID

Presentation of the Baseline Report
Presentation of the of the national reports

QUALITATIVE SURVEY

JULY-DECEMBRE 2019

Belgium, Bulgaria, France, Germany, Italy and Spain

SECOND TRANSNATIONAL WORKSHOP

16 JANUARY 2020
ROME

Presentation and discussion among the national stakeholders of the findings of the interviews

DIGITAL TRANSFORMATION IN THE CONSTRUCTION SECTOR: CHALLENGES AND OPPORTUNITIES

Action Implementation: project activities

YEAR 2



CONFERENZA
FINALE
25. 10. 2021
ONLINE
www.discusproject.eu

KICK OFF
MEETING

13 FEBRUARY 2020
VIDEOCONFERENCE

Structure and
methodology for the
CASE STUDIES

CASE
STUDIES

FEBRUARY-JUNE 2020

3 CASE STUDIES IN EACH COUNTRY

THIRD
TRANSNATIONAL
WORKSHOP

18 JUNE 2020
PARIS

STAKEHOLDERS MEET
TO DISCUSS THE
FINDINGS OF THE OVER-
ALL RESEARCH
ACTIVITIES

FINAL
REPORT

JULY-
DECEMBRE
2020

ENGLISH
LANGUAGE
PRODUCED BY
FDV+PARTNERS
+ASSOCIATES

EXECUTIVE
SUMMARY

JULY-DECEMBRE 2020

RECOMMENDATIONS FOR
IMPROVING I&R IN A
20PAGE BROCHURE
PUBLISHED 6 LANGUAGES
PRODUCED BY
FDV+PARTNERS+ASSOCIATES

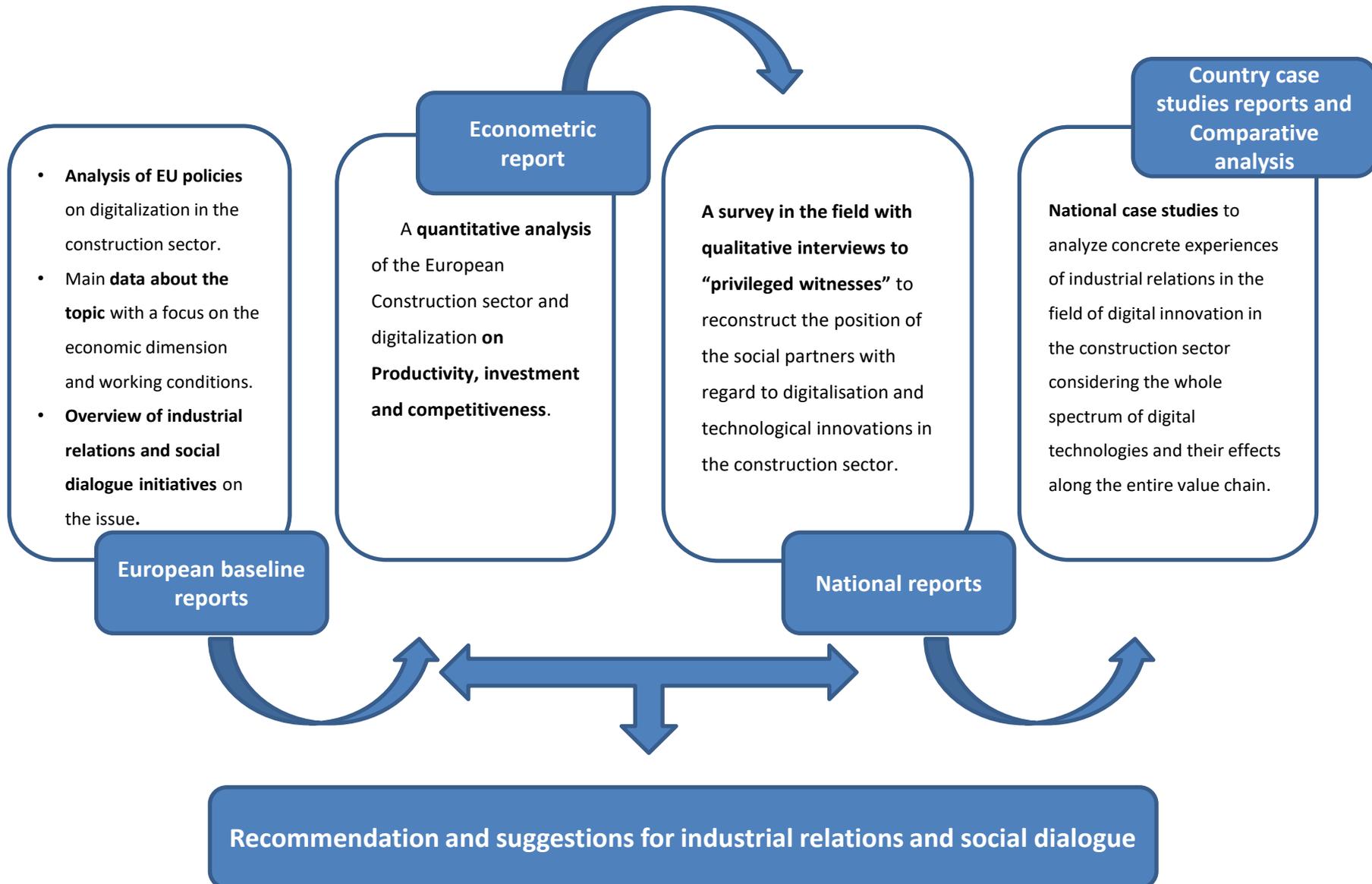
FINAL
EUROPEAN
CONFERENCE

18 FEBRUARY 2021
BRUSSELS

50 PARTICIPANTS INCLUDING SC,
WORKSHOPS' PARTICIPANTS,
EXPERTS AND STAKEHOLDERS
ORGANISED BY
FDV+PARTNERS+ASSOCIATES

DIGITAL TRANSFORMATION IN THE CONSTRUCTION SECTOR: CHALLENGES AND OPPORTUNITIES

Action Implementation: Research –Action





Indicators for Discus Research Action

RESEARCH ACTIVITIES		Per country	Per project
	Desk analysis	1	6+ 1 Eu level
	Qualitative survey (Interviews to stakeholders)	at least 10	at least 60
	Case studies	3	18
	European report	1	1
	Econometric report	1	1
	National reports	1	6
	Country case studies reports	1	6
	Comparative analysis of the country case studies	1	1
	Executive summary	1	1 available in 6 different languages



Indicators for Discus Research Action

NETWORKING AND DISSEMINATION		Per year	Per project
	Kick-off meeting	1	2
	Steering committees	3	6
	Transnational workshops	1/2	3
	Final conference		1
	Website		1
	Book		1

Further information: <https://discusproject.eu/>



Research Questions

DISCUS IDENTIFY FIVE RELEVANT FIELDS OF ACTIONS:

- a) **Employment**, with an increasing polarisation between qualified and non-qualified professions; the emergence of new professional figures and, on the other hand, the risk of the substitution of competences and professions; the need for continuing education; a growing segmentation between craft and labour work which is typical of this sector (Build-Up Skills, 2014; ILO, 2011);
- b) **Organisation of work**, with the emergence of new risks as well as new opportunities for involving workers and protecting health and safety (EU-OSHA, 2014);
- c) **Sectoral**, with the blurring of business borders and the traditional distinctions between sectors, with a greater integration between the phases of the value chain (with new relations between research and develop, data management, functioning of machinery and instruments, the provision of services) (ILO, 2015);
- d) **Territorial**, with new relationships between the public players, the social partners, the scientific community and experts, the population and civil society in the direction of forms of multistakeholders in social dialogue to respond to the complex challenges of planning and territorial innovation (BROAD Project, 2017);
- e) **Socio-environmental**, with more opportunities for energy efficiency in housing and the quality of living and urban spaces (Eurofound, 2013; Laurent & Pochet, 2015).

Methodology

SELECTION OF CASES

To analyze the whole spectrum of digital innovations and their effects along the entire value chain, considering the point of view of the on site / off site building.

1

Application of BIM

2

Application of smart devices in the digital construction site

3

Prefabrication or production of new materials

Comparative analysis

Suggestions and recommendations



Four areas of action for industrial relations and social dialogue

- 1) Policies and regulatory framework
- 2) Work organisation, working conditions and new skills
- 3) Industrial relations and social dialogue
- 4) Cultural dimension

THE ROLE OF INNOVATIVE INDUSTRIAL RELATIONS AND SOCIAL DIALOGUE TO RESPOND AND TO ANTICIPATE THE DIGITAL TRANSITION IN THE CONSTRUCTION SECTOR FROM A COMPARATIVE AND ENLARGED PERSPECTIVE THAT LEADS A JUST TECHNOLOGICAL TRANSITION.





Thanks for your attention

Further information: <https://discusproject.eu/>