The construction industry is one of the most important sectors of the economy of the European Union. It contributes more than 9% of the EU gross domestic product and provides about 18 million direct jobs. The role of the push deriving from construction in determining the level of activity in the economic system as a whole is also significant, due to the multiplying effect of the demand for buildings, especially for residential use, in terms of production, the demand for raw materials, intermediate goods and components, machinery and services, with a significant impact on the entire economy.

However, construction is also one of the sectors most responsible for energy consumption and climatealtering gas emissions (the built environment accounts for around 40% of EU energy consumption and 36% of total greenhouse gas emissions), as well as the consumption of resources and the production of waste (EC COM (2015) 614).

Consequently, the transition to sustainability in the construction sector has considerable implications for the economy as a whole, for cities and for the quality and resilience of urban settlements, for policies to combat climate change, for the efficient use of natural resources and for the circular economy.

In this sense, sustainable construction is a privileged field to combine environmental protection and quality of life, economic and employment development, contributing to the recovery of productive activities through quality innovation that brings benefits relating to the three pillars of sustainability (economic, social and environmental).

If, at present, an awareness is growing that a building can be judged as sustainable only if it is so from all three points of view simultaneously – environmental, social and economic, and, therefore, not only on the basis of a lower environmental impact, but also with reference to aspects linked to quality of life – reconciling the various aspects of sustainability is still far from straightforward.

The challenge that the sector finds itself facing is very complex. The changes foreseen point towards a transformation in terms of research and innovation, product and process qualification, rationalisation of production and supply chain relationships, and quality of working conditions. The orientation in favour of sustainability in construction is also a process of change that affects the way of conceiving all phases of the design, construction and management of buildings throughout their entire lifecycle.

This project considers the transition of the sector to a low-carbon economy through the interpretive lens of sustainability in a broad sense. However, within this interpretative framework, the work focuses on the development of "green building" within "sustainable construction", insofar as it assumes the role of a paradigmatic mirror for the transformations that affect the sector.

If, in the development of green building, the main focus is on the environmental dimension, i.e. the desire to minimise the impact on the environment of the consumption of resources (energy, water, air, soil) and the production of waste related to the design and construction of buildings in all the phases of their life, in reality it also includes aspects related to the quality of life of people, such as psychophysical wellbeing and health. To guarantee the more virtuous energy performance of buildings, for example, in addition to lowering the emissions of climate-altering gases, it ensures greater healthiness in the home environment and increases levels of comfort, as well as reducing operating costs by effectively combating the problem of fuel poverty, a growing phenomenon in EU countries. The development of green building also has a positive impact in terms of the economy and employment and as regards the ability to create new jobs and encourage retraining for employees in new production cycles.

Therefore, the study of green building demonstrates how close the interrelation of the three dimensions of sustainability is, which therefore have to be considered together, but, at the same time, it also highlights how important it is to focus attention on certain aspects of the transition to more eco-compatible production methods so that the implications can be focused on more clearly.

The project began from the awareness that the transition towards sustainability in the construction sector, and in particular housing, cannot be left to itself and needs to be accompanied to counteract obstacles and enhance the tools and opportunities available for the development of the sector.

In this context, social dialogue plays a fundamental role, the strengthening of which can contribute to effectively addressing the challenges for the construction sector in managing the impact that the transition to a sustainable economy has on the productive system, in terms of the effects on employment and people's working and living conditions. The dialogue between the social partners on meeting the green building development is crucial to improve public governance and economic and social reform within the European Union (European Commission, 2002; ILO, 2011).

Given the multi-dimensional and complex nature of sustainability, which requires multi-level governance of the policies and measures in support of sustainable construction, social dialogue can intervene effectively in supporting the transition to a low-carbon economy and society as a tool and a form of governance in itself.

The main purpose of this project is, therefore, to understand how to reinforce the role of social dialogue in support of the sustainable transformation of the construction sector, and in particular housing, at Italian and European level.

To this end, the undertaking provided an overview of the development of green building at European level and in the project partner countries regarding: regulatory aspects and policies of reference, economic and employment dimensions, the development of research, innovations and new technologies. The project then focused on the role of social dialogue in support of sustainable buildings and in particular green building and, through Italian and European guidelines, identified suggestions and recommendations for strengthening social dialogue in the transition to a low-carbon economy.

The project involved five EU countries with different models of industrial relations, degrees of technological development and efforts in the promotion of sustainability in construction: Italy, Germany, Spain, Belgium and Poland. The study, after a general overview at European level, focused on a review of the five different national contexts to identify the major trends and compare experiences in Northern, Southern and Central Europe, considering convergences and divergences in the development of green building and the role of social dialogue.

The project was carried out over the two-year period 2015-2017. Therefore, the information contained in this document refers to the period in which the desk and field work was conducted, although the data contained in the reports have been updated in the event of particularly significant changes in the economic situation, or in the policies and initiatives in support of green building and social dialogue that might have occurred during the period.

METHODOLOGY

The desk research for the preliminary report and the national reports was based on the consultation of documentary sources and an analysis of secondary data.

The national reports and the guidelines for strengthening the social dialogue at national and European level were based on a common methodology that includes conducting in-depth interviews with "privileged witnesses" – key players in social dialogue in the field of sustainable construction – and on a path articulated in specific workshops at national and European level that allowed an exchange of knowledge, a comparison between different experiences in the partner countries of the project and mutual learning. The workshops were conceived as proper working groups on social dialogue, called on to share and provide precise indications in this regard.

For the field research in each country, ten interviews were conducted aimed at the following players in social dialogue in the field of sustainable construction:

List of privileged witnesses interviewed
Workers' representatives at national level for the construction sector
Workers' representatives at local/company level for the construction sector
Employers' representatives at national level for the construction sector
Employers' representatives at local/company level for the construction sector
Representative members for the institutions
Representative members for associations (environmental, civil society, etc.)
Experts

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

Figure 1a – Outline of the project path (Year 1)

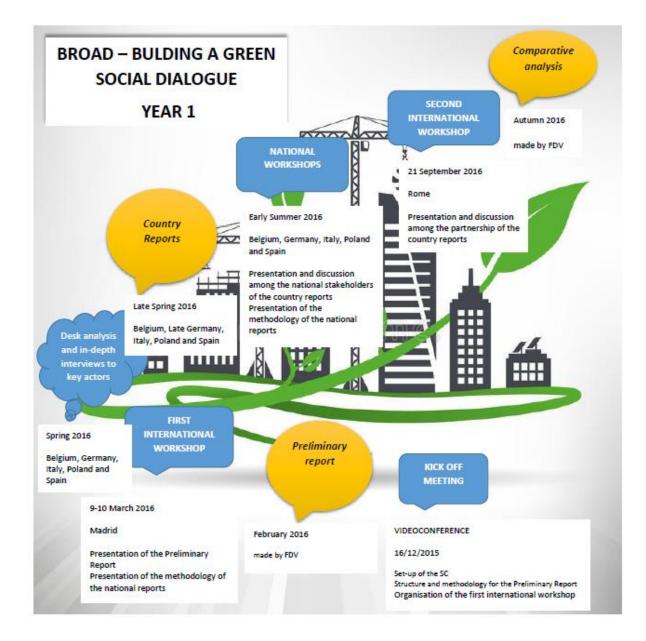
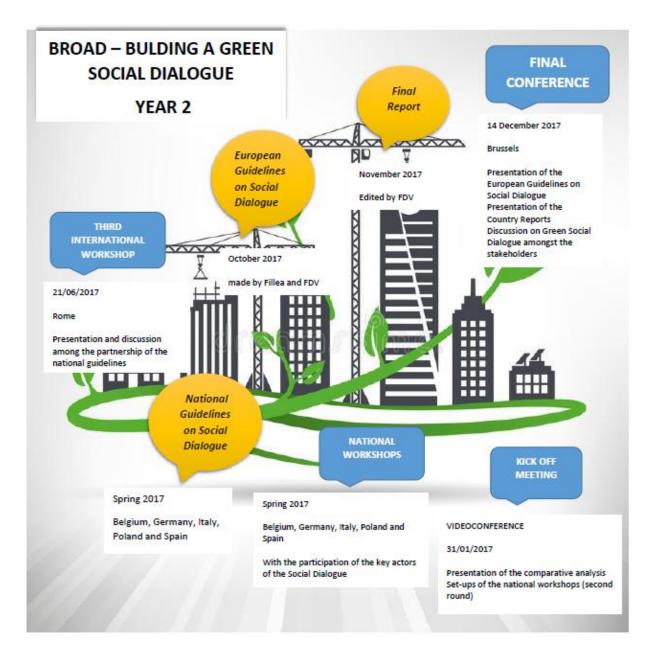


Figure 1b – Outline of the project path (Year 2)



Report structure

The report, the result of a two-year project, is organised as follows:

Preliminary report

Chapter 1 describes the general characteristics of the construction sector at European level, highlighting the environmental, economic and social benefits related to the development of green building and indicating the factors that may hinder greening processes in the sector.

Chapter 2 defines the policy and regulatory framework and the most important initiatives in support of green building.

Chapter 3 analyses more profoundly the dynamics of the sector in Europe, with a specific focus on employment, also with reference to the value chain of the sector, the question of skills and training needs related to green innovation processes in building. The chapter ends with the identification of the main drivers of change and innovation in the green building economy.

Chapter 4 reconstructs the role of social dialogue at European level in support of the green economy and the position of the social partners with respect to green building.

Country reports

The five national reports are articulated as follows:

• Chapter 1. The construction sector: main features

General description of the main characteristics of the construction sector at national level.

• Chapter 2. National political framework for sustainable construction

An overview of the regulatory framework and policies of reference to support the sustainable transformation of the construction sector, focusing on green building.

• Chapter 3. Major trends in sustainable construction focusing on green building

Description of the dynamics in the sector through the analysis of the main economic and performance indicators: investments, employment, businesses, innovation. Definition of training needs for sustainability in construction and the identification of barriers to and drivers for the development of green building.

• Chapter 4. Social dialogue and sustainable building

Definition of the role of social dialogue in the transition to sustainability in the construction sector. The interviews conducted in the five partner countries allowed the reconstruction in detail of: the general framework of reference; the position of social partners; initiatives and best practices at national, local and company level; drivers and barriers to strengthen social dialogue in green building.

• Chapter 5. Guidelines for social dialogue in sustainable construction focusing on green building

Definition of national guidelines identifying what needs to be done to improve social dialogue in sustainable construction by defining the tools of action on the one hand, and the areas of action, on the other. There are also suggestions and recommendations to strengthen social dialogue in green building conversion processes at European level.

5.1 Tools to strengthen social dialogue

Description of arenas, actors, practices of social dialogue on green building focusing on: what the tools of social dialogue are to improve green building at national level; what is required to strengthen current tools; what new tools need to be created.

5.2 Areas of action

Presentation of guidelines directly referring to the following areas of action:

5.2.1 Policies and legal framework

National and local strategies, incentives and financial policies, certifications, controls, smart cities, social policies.

5.2.2 Working conditions and new skills

Training, quality of work, new skills and new professions.

5.2.3 Technology, knowledge and innovation of the productive processes

Industrialisation, R&D – research and development.

5.2.4 Cultural dimension

Information and communication activities.

5.3 Directions for social dialogue at European level

Suggestions for European social dialogue both at the level of tools and area of action.

• Annex: Comparative analysis

European guidelines for social dialogue in sustainable construction

Presentation of guidelines aimed at strengthening the role of social dialogue in support of the sustainable transformation of the construction sector at European level. The guidelines represent a synthesis of the comparison and examination of the indications that have developed in the national contexts of the project partner countries.

The European guidelines are articulated as follows:

1. Preliminary assumptions, describing basic guidelines of a general nature.

2. Social dialogue for sustainable constructions in the project countries, *providing a reasoned synthesis of the state of social dialogue in the five partner countries.*

3. Strengthening European social dialogue on sustainable buildings, *illustrating the essential conditions and key points for the full implementation of social dialogue on sustainable constructions.*

4. The European social dialogue on sustainable constructions, describing the priority areas of intervention from the point of view of the national partners relating to: policies and regulatory framework; working conditions and new skills; technology, knowledge, innovation; the cultural dimension.

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