DRIVING AND SUPPORTING SUSTAINABILITY IN CONSTRUCTION

Strategic vision

TABLE OF CONTENTS

1. KEY ROLE OF THE CONSTRUCTION SECTOR

The construction sector is at the heart of our lives: construction enterprises and their workers build the homes we live in, the roads and railways on which we travel and the buildings in which we work or learn, the hospitals, the infrastructure that provide us with access to water, telecommunications, etc.

In 2020, construction activities in the European Union represented 10,6% of GDP, 6,2% of total employment, with almost 13 million workers and more than 3 million companies, 95% of which have less than 20 workers. The construction sector therefore has several social sustainability impacts.

The construction, use and renovation of buildings require significant amounts of energy and mineral resources (e.g., sand, gravel, cement) that, according to the data received by the European Commission, are responsible – in EU buildings - for about 40% of the EU's total energy consumption, and for 36% of its greenhouse gas emissions from energy[1].

In addition, construction and demolition account for approximately 25%-30% of all waste generated in the EU.
In the light of these facts, it is evident that the construction sector will play a key role in achieving decarbonisation of our society and the implementation of the *Sustainable Development Goals*.

FIEC therefore reiterates its commitment towards the UN *Sustainable Development Goals*, which establish the blueprint to achieve a better and more sustainable future for all, as well as the *Paris Agreement* and the *European Green Deal*.

[1] Renovation Wave Strategy, COM(2020)662 final, 14/10/2020.

The *European Green Deal* is the new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases by 2050 and where economic growth is decoupled from resource use.

It therefore represents significant opportunities for the construction sector, but to be implemented an adequate framework and the appropriate instruments are required together with the ambitious goals this key EU flagship has set.

Although current emphasis is on the climate change and a need to address the related climate challenges, it is important to keep in mind that sustainability requires a holistic approach based on 3 pillars that cover environmental, social and economic dimensions and which recognises that all elements and aspects must be considered together to achieve sustainable economic development and growth.

2. SUSTAINABILITY INTEGRATION IN CONSTRUCTION COMPANIES

The construction industry is characterised by its extensive supply chain and its numerous stakeholders. Its sustainability issues and concerns include such matters as multiple environmental aspects, community development, social accountability, ethics and integrity, labour rights, health and safety, prevention of corruption and engagement of sectoral interest holders.

The construction industry is already able to provide solutions for most of these economic, social, technical and environmental challenges. Construction companies, including small and medium ones, have already integrated these aspects in their business model and they also provide solutions to future challenges such us infrastructure for renewable energy, alternative and smart mobility concepts, etc.

Environmental sustainability can be integrated by companies as follows, and considering that in the construction process, these actions are key to achieving goals:

- Use of environmental management systems or environmental management standards.
- Use of sustainable materials, which should be reusable or recyclable to support the circular economy.
- Reducing waste.

- Reducing energy consumption, both on site and in an asset's life cycle.
- Replacing heavy machinery used in construction work sites with electric or low emissions machinery.
- Using energy from renewable sources.
- Use of carbon calculator for various activities to compare solutions and design to reduce embodied carbon.
- Reducing water use.
- Reducing congestion around sites due to material deliveries.
- In terms of final product: other aspects, such as assessment of sustainability and environmental performance through harmonised methods covering the whole life cycle, circular economy for the used materials and supplies, energy efficiency, use of "Smart Readiness Indicators", national and global certification protocols of energy-environmental sustainability, e.g. BREEAM, CEEQUAL, DGNB, HQE, *Minergie*, *Casa Clima*, ITACA, LEED, ENVISION, *Level(s)*.

Looking at the impact of products and process on CO2 emissions, some analysis[2] indicate that 81% of such impact is related to the products and materials, whilst only 19% is due to the process itself. Furthermore, green / sustainable products and materials tend to be more expensive than the traditional ones and have therefore also a greater impact on the final price.
These elements should be considered when trying to define the appropriate measures to maximise such environmental impact.

Other company-wide processes include:

- Reducing energy use, switching offices and maintenance yards energy to renewable energy sources.
- Reducing business travel and using lower emission transportation methods.
- Engaging suppliers and other stakeholders to reduce environmental impacts.

[2] Sources: CDP, World Economic Forum & BCG report The Supply Chain Opportunity (January 2021).

Social sustainability can be implemented by corporates and businesses through the following actions falling under 7 UN SDGs:

- Ensuring that in the supply chains employees are paid a living wage, have access to basic facilities and avoid modern slavery.
- Health and safety management standards.
- Mental health & well-being training.
- Employee education and training.
- Upskilling graduates and apprentices, etc.
- Reporting and improving gender diversity, equity and inclusion, including gender-pay gap and gender discrimination.
- Reporting and improving disability, cultural and other minority group diversity, equity and inclusion.
- Community engagement around sites.
- Collaboration with supply networks and other stakeholders to improve social sustainability.

3. WHY FURTHER IMPROVEMENT OF CORPORATE SUSTAINABILITY IS NEEDED?

There are many reasons why construction companies must improve their sustainability. Whilst sustainability may once have only been a requirement for certain clients or certain markets, it is now becoming part of construction companies' moral license to operate.

Globally, all UN countries have committed to achieving the UN *Sustainable Development Goals* by 2030 together with the *Paris Agreement* commitments to keep global warming below 1.5°C from pre-industrial levels.

These commitments are increasingly translated into the legislative environment that construction companies face. In this document, FIEC explores some of the upcoming sustainability legislation faced by the construction sector, including EU taxonomy, the criteria established for circular economy and carbon taxation. Nonetheless, carbon reporting, energy efficiency audits and air quality standards for geotechnical companies have already been implemented across the globe.

Sustainability is also now frequently considered in government and client tendering processes. From the CO2 *Performance Ladder* in the Netherlands to Austrian government infrastructure procurement, a considerable client demand for more sustainable construction proves to be on the rise.

Beyond client demand, a series of sustainability improvements also offer efficiency savings, as construction companies tend to reduce fuel and material use or to attract a wider range of talents.

Young engineers and employees represent an increasing key factor in the sustainability performance of an organisation, particularly when deciding who they work for (*Aziz*, 2020). A wider audience and public opinion are also becoming more and more 'sustainability-aware'.

The investment community has also followed this trend, with an increase in company requests for environmental, social and governance data. A growing demand for climate-related risks and opportunity disclosures have also an impact (for more details, see following pages on green financing).

Therefore, whether it is attracting and retaining talent or accessing capital, sustainability still confirms its strategic importance. More fundamentally though, construction companies operate in a climate emergency (UNEP, 2021).

Without action to decarbonise and improve our wider sustainability, the Earth and global population will feel the increasing detrimental impact of climate change and we will face an increasingly dangerous world (IPCC, 2021).

4. WHAT ARE THE REQUIRED CONDITIONS?

The UN *Sustainable Development Goals* and the EU *Green Deal* are extremely ambitious. The construction industry is ready and willing to play its key role, but an adequate framework and appropriate instruments need to be put in place.
It is thus important to focus on the conditions that need to be met.

4.1 Sustainable Investment

Sustainable investment requires investing in line with the three pillars of sustainability. Although the need for "green" investment is particularly high, the economic and social dimensions must not be neglected in view of EU challenges. Despite the fact, that the European Commission forecasts a "*stronger than previously-expected rebound*", a stable recovery is not a certainty.

Due to its economic, social and environmental weight, investments in sustainable construction are a must to sustain recovery efforts. Infrastructure is a key enabler for the functioning of any economy.
Currently, the EU is confronted with a huge infrastructure gap after several years of decline in investment.[3]
Moreover, the shortage of housing, especially social housing, as well as of modern infrastructure, to which the construction industry can contribute, constitute basic requirements for the wellbeing of European citizens and for the economic development of the block. The investment gap for social housing is estimated at € 57 billion per year.[4]

The *Renovation Wave* strategy[5] will play a key role toward sustainable investments during the next years. In its relevant document, the European Commission underlines that renovation can offer numerous possibilities and generate far-reaching social, environmental and economic benefits.

[3] EIB *Investment Report 2019*, p.65.

[4] *Boosting Investment in Social Infrastructure in Europe*, 2018, p.41.

[5] *Renovation Wave Strategy*, COM(2020)662 final, 14/10/2020.

With the same intervention, buildings can be made healthier, greener, interconnected within a neighbourhood district, more accessible, resilient to extreme natural events, and equipped with recharging points for e-mobility and bike parking. Smart buildings can provide essential privacy-compliant data for city planning and services. Furthermore, deep renovation can reduce pressure for greenfield construction, helping preserve nature, biodiversity and fertile agricultural land.

As regards the financing aspect, a significant contribution will come from the EU (e.g via the *National Recovery and Resilience Plans* supported by the maxi-recovery fund, *Next Generation EU*, via the *European Structural and Investment Fund*, and the *European Social Fund*, etc.), but a considerable part of needed investments will have to stem from national budgets. This involves sufficient flexibility for fiscal policies and State Aid.

Furthermore, a solid role of European banks can support the economic operators in contributing to the realisation of a more sustainable European Union.
As per corporate and project financing and loans for real estate activities, the construction sector heavily relies on banks.

Favourable financing conditions are vital for our businesses to deliver sustainable projects and make the necessary investments in innovation.
Investment in construction currently represents 43,7% of the EU-28 Gross Fixed Capital Formation.

To achieve value for money, it is of utmost importance to involve the sectoral expertise when defining “sustainable investments”, as set out under the EU Taxonomy legislation.
The criteria for sustainability - that are in the process of being defined within the EU Taxonomy - will also be used to assess the *National Recovery and Resilience Plans* – as well as by financial institutions - for deciding where to channel future investments.

4.2 Setting Alliances

Environmental challenges and digital transformation have an impact on the structure of the construction sector itself and on its links with the concerned stakeholders.

Clients, public and private, are increasingly integrating "green" criteria/demands in their projects. Circular economy and a "life cycle approach" are redefining the links along the supply chain and between the material producers and the builders. The environmental objectives and the increasing use of digital tools (BIM, automation, modular building, etc.) need to be evaluated and linked from the design phase. These are only some examples highlighting how the value chain is set to become an ecosystem, in which all players are co-dependent and their collaborative working method based on strong cooperation and transparency throughout the value chain (architects, material producers, machine manufacturers, etc.).

According to a study by the *Boston Consulting Group*, 81% of CO2 emissions in construction are generated by the upstream part of the value chain (materials and products manufacturers, machineries producers, etc.). Only a small share is generated by the construction process itself. The building design also plays a crucial role in its long-term sustainability.

There is therefore an increasing need for setting strong alliances between all the concerned stakeholders and for defining a legislative framework that facilitates such alliances. Trade associations are essential alliances. These organisations, at national and international level, provide platforms to share best practices and ways to improve sustainability.

These associations can set minimum sustainability standards for their members, as well as collect metrics to measure sustainability improvements in their sector. In this context, it is worth noting the role that the so-called Paritarian Funds/Entities play in the construction industry: they have been established by the Social Partners and are jointly managed.

They develop activities, often fulfilling a complementary role to the existing public structures, mainly in the area of vocational training, health and safety, sectoral pensions and paid holiday schemes. Besides collective agreements, the Paritarian funds/entities play an important role in bringing the Social Partners together and thus contributing to the reinforcement of industrial relations.

4.3 Education and Training

The construction industry provides jobs to almost 15 million people across the EU. However, in more and more EU countries, FIEC observes a growing issue of skills gap or skills mismatch.

This translates an inadequacy between workers' skills and the actual needs of construction companies. The trend is often linked to a pure lack of workforce, which has a direct impact on productivity.

Relevant training and education programmes must be revised to integrate market and technical changes, and in particular, sustainable construction into curricula: this involves skills related to energy efficiency, to circular economy and to wider sustainability, as well as digitalisation.

In this respect, national construction federations, together with active training centres, Social Partners and public authorities, play an important role in anticipating the relevant demand for skills and in providing adequate information and instructions regarding sustainability to construction companies, staring from SMEs.

Investing in such skills update will be a key factor to the sector competitiveness, as well as for driving a more sustainable construction industry.

Individuals from poorer economic backgrounds, minority groups and women are all under-represented in construction. Therefore, training and education of these groups are essential to diversifying our workforce and introducing diversity of thought.

Likewise, improving conditions and the working environment on site - and in other construction settings - can encourage these minority groups into a wider variety of roles.

In parallel, construction companies should continue prioritising health and safety matters. In the light of innovative developments (e.g., new types of construction materials, new knowledges on existing ones), a prompt assessment of health and safety aspects – for the workers and the end-users – will have its positive impact.

4.4 Fit for different company sizes

The construction sector is characterised by a high density of SMEs. More than 95% of construction companies employ less than 20 workers. Their weight in the value chain makes them vital players in the transition to a more sustainable industry.

SMEs are socio-economic drivers but are also indispensable for making construction greener being often pioneers when it comes to providing green solutions.

However, SMEs still experience barriers that large companies do not face.
They need to benefit from reduced bureaucracy and simplified reporting procedures when it comes to providing proof of sustainability. It is essential to ensure that SMEs are eligible for private and public sustainable investments despite limited reporting capacities. In any case, SMEs must have easy access to financing, be able to embark on new projects and to invest in innovation.

4.5 Renovation

To achieve the established climate goals, we need to accelerate the rate of existing building renovation in the EU. Although targets have already been set, we are a long way off the ambition of a renovation rate of 3% per year. However, setting even tougher objectives is pointless unless we have the means to achieve the already challenging, existing targets. This is why investment is critical to success.

Furthermore, the focus must shift from energy efficiency-oriented renovation to holistic renovation. That way, the sector can also deal with other climate-related improvements in buildings, such as structural decisions for climate-proofing, green infrastructures, climate change mitigation: actions that will tackle health aspects, such as indoor air quality, protection of the indoor atmosphere against radon, the removal of potentially hazardous, old materials, etc. This is the way forward to ensuring an even more long-lasting construction ecosystem.

Any further measures foreseen in the relevant EU proposals must include the need for holistic renovation, the cost of such renovation, priorities, demands and available budget of the building owner.

The latter also needs to be seen in the light of the landlord/tenant split incentive challenge, whereby tenant's needs are not necessarily aligned with the priorities of the landlord (for whom the return on investment will be evaluated differently compared to the potential benefits for the tenant).

In all cases, it is always advisable to think about the long-term perspective, as rapid fixes will not solve problems at their roots.

Finally, "life cycle" thinking needs to be applied to renovation. This means that we address renovation, not just as a process improving the building, but also as improvement and availability of sustainable materials.

In this context, it is important to highlight also the challenge of recycling materials that are removed during renovation, and parallelly planning for future recycling/reuse of materials installed during the renovation works.

Life-cycle thinking should include design and potential change of use. In terms of actual emissions and impact on the environment, life cycle means looking at the activities of the entire value chain: this means going beyond the construction phase.

4.6 Innovation

Innovation is vital to the achievement of EU sustainability policies. New materials are constantly being developed and the integration of the search for materials (with the aim to duce waste, emissions and costs) must be included in research activities funded by the *Horizon Europe* programme. Likewise, industrialisation and digitalisation, which can improve the construction process and improve productivity as well as safety - which have already been adopted but need to be accelerated - should be targets for further EU-funded research. A stronger and more systematic support for innovation in the construction sector is therefore envisaged.

In addition to *Horizon Europe*, there are other policy areas that should urgently tackle the obstacles posed to digitalisation. Europe needs to be the innovation leader in climate technology. For this reason, we need to foster research and development in climate-friendly and innovative building material and processes to harvest the opportunities that come along with the solutions provided by the construction industry itself to energy efficiency and climate change mitigation. These include, amongst many other things, the ownership, accessibility and security of data, as well as liability and ethics.

4.7 Circular Economy

The new *Circular Economy Action Plan* should build on the existing plan, which – for construction - aims to reduce waste and improve the rate of recycling and reuse of construction materials.

Much work has already been done and the emphasis should now be on the uptake of the voluntary measures in the *Construction and Demolition Waste Protocol*, the *Level(s) Voluntary Assessment Framework* and the "*Circular Economy - Principles for Buildings Design*".

Even assuming that the uptake of the above will be improved, the challenge of the market uptake remains. The sector urgently needs measures to stimulate both the market for secondary materials and the clients' behavior. The latter continue to show a preference for virgin raw materials and new manufactured materials.

Furthermore, despite a strong enthusiasm towards the circular economy shown along the construction value chain, increased, improved, accessible and cost-reduced recycling facilities are needed. If otherwise - when secondary materials remain at the same price as new materials, or even at a higher price – expectations of a significant and permanent switch to a preference for secondary materials will be quite low.

We must also ensure that such focus on secondary materials equals a focus on low carbon materials. The rapid adoption of low carbon materials both by contractors and clients is necessary – via the specifiers and by the contractors themselves.

This needs to be supported by the relevant EU mechanism to allow for low carbon materials to be rapidly introduced by the industry.

This means they either require recognition within the standards system or need to be validated in such a way that insurers and clients are satisfied.

5. ACHIEVING SUSTAINABLE TARGETS: 10 MAIN GOALS

The examples reported so far clearly show that many construction companies, independently of their size, are already integrating sustainability, partly or more extensively, into their process and/or products.

However, some of them are still considering how to do it, whilst others would like to go further into the process.

To do so, **10 main objectives** listed below are identified for the EU construction companies:

1. **Determine sustainability areas** that are most relevant to the company; start measuring its impact.

2. **Set ambitious sustainability targets** at process, product and business level.

3. **Introduce sustainable design guidelines** to be applied in your works.

4. **Define a sustainable supply strategy** to reduce sustainability impacts in the overall supply network. Include emissions and other sustainability requirements in orders and monitor performance.

5. **Foster community engagement around worksites** and participate in industry initiatives around **best practices** and **partnerships**.

6. **Introduce low-carbon governance** to align with internal incentives.

7. **Set targets** to improve corporate **welfare** and **well-being** training.

8. **Develop diversity, equity and inclusion trainings**; start gender-pay-gap reporting and develop a *Social Sustainability Action Plan*.

9. **Establish and apply health and safety management** standards.

10. **Strengthen employees' education and training,** upskilling graduates and apprentices.

EUROPEAN CONSTRUCTION
INDUSTRY FEDERATION

FIEC is the *European Construction Industry Federation* that - through its 32 national member associations based in 27 countries (Norway, Switzerland and Ukraine on top of 24 in the EU) - represents construction companies of all sizes, i.e. small and medium-sized enterprises as well as "global players" carrying out all forms of building and civil engineering activities.

Scan QR code