



European  
Commission



# HIGH LEVEL CONSTRUCTION FORUM

## Meeting report

Reporting from the 1st meeting of the  
Resilience Cluster Group

Technical Secretariat of the HLCF / 20.10.2021

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## General overview

On September 28 2021, the European Commission's Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) organised the first meeting of the High Level Construction Forum (HLCF). The new HLCF is an initiative that stems from the previous Construction 2020 Strategy and aims to co-create the green, digital and resilient transition pathways for the EU construction ecosystem. During the first HLCF meeting, the industry, public authorities, social partners and other relevant stakeholders gathered and started dialogue to define a transition pathway for the construction industry ecosystem.

Following the meeting of the HLCF, separate discussions were organised under the digital (19.10), resilient (20.10) and green (22.10) themes. The meeting of the Resilience Cluster Group was attended by almost 100 stakeholders who exchanged on the challenges, initiatives and actions in the following three thematic areas:

1. Providing the labour force with the right skills;
2. Enhancing climate resilience and adaptation;
3. Building a resilient construction industry.

## Opening of the meeting

*Ms Fulvia RAFFAELLI, Head of Unit for Construction (DG GROW H.1),* opened the meeting of the Resilience Cluster Group. She started by emphasising that the Cluster meeting was a continuation of the first meeting of the HLCF, during which over 200 stakeholders from the whole construction value chain discussed construction transition pathways. *Ms RAFFAELLI* highlighted that construction is one of the 14 ecosystems identified in the European Industrial Strategy. For each ecosystem, the European Commission will steer a co-creation process of transition pathways in partnership with a broad range of stakeholders. Transition pathways, she explained, are processes to identify the actions needed to be ready to seize the opportunities of the digital and green transitions. They are also a process that will help the EC to identify the scale, benefits and conditions required to achieve these transitions.

*Ms RAFFAELLI* stressed that the purpose of the cluster meeting is to elaborate on the existing vision for the green, digital and resilient transitions by looking at the challenges, opportunities, and the ways to operationalise the work in the coming months and years. Following the cluster meeting, all inputs will be integrated into a staff working document (SWD) that will set scenarios for the transition pathways. She added that after the cluster meeting, stakeholders would have the chance to share additional written input with the Commission and later, following the adoption of the SWD, the EC will launch another round of consultations to collect and agree on commitments, pledges and concrete actions for all stakeholders.

She continued by elaborating on the importance of building a resilient construction ecosystem. The COVID-19 pandemic has revealed the vulnerability, fragility and dependence of the sector. During the pandemic, construction production dropped by 26% in the EU and, although activities have regained ground, they have not reached the pre-crisis level in many Member States. The pandemic affected health and safety, the movement of workers, the availability of construction materials, the implementation of contracts and the revenues of construction companies. It has also demonstrated, more than ever, that the ecosystem needs modernisation.

She further highlighted that the crisis has brought many opportunities for the sector. The construction sector offers significant potential for growth and job creation and, hence, an important opportunity to stimulate the economy's overall recovery. In turn, recovery measures can support the ecosystem transformation to be more green, digital and resilient.

*Ms RAFFAELLI* presented three critical topics for the cluster meeting:

- Human capital, which is a critical factor for the transition. Only a new generation of digitally skilled workers/entrepreneurs can transform the construction sector into an ecosystem fit for the 21<sup>st</sup> century. Upskilling and reskilling in the construction ecosystem to create an adaptable workforce ready for the future of work is an immense task. Fortunately, we are not starting from scratch and can build upon stakeholders' existing initiatives and activities.
- Climate change, which impacts more and more infrastructure and buildings. Climate-resilient buildings need to be planned, designed, built and operated in ways that help to prepare and adapt to changing climate conditions. However, it is important to note that the promotion of climate change mitigation and adaptation measures is part of the major spending programmes of the EU.
- The resilience of the ecosystem as such. The sector needs to be prepared to adapt, absorb future shocks and seize new opportunities. Innovative business plans need to be adopted to improve the sustainability and competitiveness of the whole value chain. Finally, the sector needs a regulatory framework that supports the transition and makes the ecosystem attractive for companies and the labour force. These changes can profit from a massive deployment of financial means for the post-pandemic recovery.

Ms RAFFAELLI ended her statement by stressing that the construction ecosystem will benefit from all of these opportunities directly, but also indirectly as an enabler. The ecosystem can thrive on the twin transition, but it needs to be ready to do so. She concluded that in this meeting, we need to identify the most pertinent challenges and opportunities to ensure the resilience of the construction ecosystem.

## Context and report from the first HLCF meeting

Mr Christoph GRAN, Partner and Co-founder of the ZOE Institute for Future-fit Economies, provided an overview of the larger context in which the green, digital and resilience transitions take place. He also presented the key takeaways from the first meeting of the HLCF.

Mr GRAN started by elaborating on the ongoing work of the EU to provide a systemic answer to severe and urgent social and ecological challenges with initiatives such as the European Green Deal. He stressed that building a green, digital and resilient construction industry ecosystem could be a leading example of a successful transformation. The transition takes into account the themes of circularity of construction materials, energy efficiency and climate neutrality without forgetting affordability and improved wellbeing. He also highlighted the importance of achieving the transition through a co-creation process and referred to the example of the New European Bauhaus.

He continued by introducing the topic of resilience. Resilience, he stressed, is playing an increasingly important part in EU processes and activities. According to the ZOE Institute, resilience can be defined as ‘the ability to not only absorb and cope with an immediate shock, but also adapt to challenges in a way that transforms the socio-economic system in a sustainable, *socially-just manner*’. The engine of the transition, he stressed, is the key stakeholders of the construction sector. They are the ones who will turn assets (human, built, natural, social capital) into outcomes (wellbeing, equity, competitiveness).

Mr GRAN then reported on the three resilience-related themes discussed during the first meeting of the HLCF.

### Providing the labour force with the right skills:

The first discussion highlighted the importance of providing the labour force with the right skills to accommodate the digital and green transitions. Without a suitably skilled labour force, the transitions will not occur. Life-long learning and multi-sector partnerships are critical to achieve the vision of a more

resilient industry. *Mr GRAN* gave the example of the multi-stakeholder sectoral skill strategy for job creation as an existing blueprint of cooperation between Member States in the area of skills and training.

*Mr GRAN* continued by providing some additional thoughts on resilience. He stated that the idea of skills goes beyond just the workers but also includes management, civil servants, employees, architects and citizens. He stated that co-creation and systemic thinking are vital for this transition but also require time, knowledge and open-mindedness towards results that come out of it. Lastly, *Mr GRAN* stressed the importance of being personally resilient in dealing with the effects of climate change. He explained that we need to be strong to withstand external shocks and unexpected events and work towards sustainable results.

#### **Enhancing climate resilience and adaptation:**

*Mr GRAN* outlined that cities are key players when addressing this topic as they emit 70% of global CO<sub>2</sub> emissions. He explained that cities need to be transformed into heat-resilient and greenhouse gas emissions reducing infrastructures. The importance of co-creation across different sectors and different levels of governance plays a large part in this transformation in his view.

*Mr Gran* pointed out that thinking about climate resilience requires the ability and willingness to ask and answer difficult and confronting questions. Questions around whether we should build new buildings at all or whether we should maximise the benefits from existing structures need to be addressed, or questions dealing with the consequences of phasing out fossil-fuel subsidies on the infrastructure of cities. He underlined the necessity to further develop the current understanding of progress in order to see and deal with inherent contradictions and to realise the full potential of transformation

*Mr GRAN* ended this part by stressing that resilience should revolve around equity and social justice.

#### **Building a resilient construction industry:**

*Mr GRAN* started off by acknowledging that construction companies are facing unprecedented shortages and high prices of construction material. He explained that this situation puts the Green Deal and the NextGenerationEU recovery plan at risk. An imminent crisis has been announced by suppliers which will affect the whole EU and includes consequences like bankruptcies and delayed construction projects.

He outlined the four approaches discussed that could be used to deal with this crisis, which are: Member States extending payback periods; the EU fostering the exchange of best practices between Member States; focusing on strengthening circularity; and increasing the demand for sustainable materials (from public administration).

*Mr GRAN* stated that the local level of the construction industry is vital as this is where the change is really taking place. He continues to explain that ideas about how to shape sustainable and resilient societies often emerge at local or regional level. In line with this, acceptance is also generated locally. *Mr GRAN* then outlined how city planning and public procurement have a central role in changing demand as cities are re-thinking their city planning. The example of Amsterdam's doughnut approach was given.

He continued by saying that the transition to new approaches, because of changing demands, will create substantial opportunities, in particular for SMEs. Opportunities presented by *Mr GRAN* include business opportunities for recycling, reusing and localised supply chains. He closed the discussion by stressing how important citizens are for the acceptance of and demand for such new approaches; without acceptance locally such change cannot happen.

*Mr GRAN* ended his intervention by citing five key takeaways from the HLCF:

- Resilience implies holistic perspective on skills;
- Resilience requires rethinking and revising existing infrastructures and concepts of living;
- Resilience must be anchored at local level;
- Resilience requires collaboration across topics, levels of governance and stakeholders; including the transfer of knowledge and the sharing of information;
- Resilience needs new business models.

## Theme 1 – Providing the labour force with the right skills

The discussion was facilitated by *Mr Felix ROHN, Policy Officer at DG EMPL*, who provided a short introduction to the importance of skills. Technological advancements, he stressed, significantly impact the construction sector (development and use of sustainable materials, consideration of energy efficiency, development of green buildings, etc). These advancements will affect occupations in the sector: building designers, installers of energy-efficient lighting/heating/cooling systems, insulation material specialists, etc. People should be prepared and made fit for this wave of change. Education and training systems must offer appropriate training to these new and changing occupations. The question of skills is key for the mid-term and long-term thinking.

### Challenges related to skills

The key challenges raised by stakeholders during the meeting were:

- a. The need to move rapidly in adapting existing education curricula and train the future workforce;
- b. The need for tailored approaches to different profiles of workers – we need to adapt initial education and training for young workers, but also offer life-long training for adult workers;
- c. The need to look at the shortage of workers at all levels (low, medium and high skills);
- d. The limited room for investment in training and attracting workers due to low margins in the construction sector;
- e. The need for clear goals and strategic direction to define how and when to invest in skills;
- f. The limited time for training construction workers;
- g. The reluctance of some SMEs to train their workers;
- h. The need to attract young people to the sector;
- i. The need for common approaches to training, qualifications and levels of qualifications across Member States;
- j. The need to recognise the importance of other skills than green and digital skills in the transition: workers also need transversal skills (for better communication, coordination on worksite);
- k. The need for more cooperation between educational institutions and the industry.

During the meeting, the project team used the digital visual collaboration tool Mural<sup>1</sup> to gather the input of stakeholders from the discussion and the chat. The visual below presents all of the inputs on the challenges related to skills.

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<sup>1</sup> More information about Mural can be found here: <https://www.mural.co/>

## ✂ What are the key challenges in relation to skills?

Challenges 	Adapted approaches depending on the profile of the workers: young people or adults.	Attracting young people towards our sector	Lifetime learning	IT skills, biodiversity management in aggregates sites, and people able and willing to drive/operate machinery.
Shortage of skilled workers	We focus too much on upskilling. Driving/operating machinery does not always require high skills.	Quickly adapt the curricula in the vocational schools and universities, so as the new generation is skilled to address the big challenges deriving from the climate emergency	Member States to prioritise vocational training and upskilling education programmes to prepare for the green and digital transition	Lack of clear and ambitious policy to drive towards sustainable buildings leads to uncertainty for industry about how and when to invest in skills for new technologies.
Beyond skills in digital and green fields, workers also need transversal skills (for better communication, coordination on worksite).	Adding skills that are applicable to work on resilience (system thinking, co-creation)	Expand IT topics in engineering studies with dedicated course programs	Enhanced training on OSH is also required and will be crucial in the framework of the Renovation Wave, which will lead to asbestos removal at large scale.	Need for clear digitisation goals to train future workforce in time (LCAs BIM etc)
Skills, important element for new building techniques like 3D printing or on-site assembly	The low margins in the sector make it very difficult for businesses to invest significantly in training	Important to have an approach to all the levels of qualifications holistic approach and not only communicate about shortage of low skills	Skills also important for deconstruction to enable (1) construction and demolition waste up and down cycling and (2) adaptability of buildings	Stabilise public investment, in order to provide higher job security (= attractiveness) than with the current ups and downs
Construction workers have (due to shortage of workers) too much work, hence claim no time for training.	Another challenge is the recognition of skills and competences cross-border once the workers are trained.	How to provide 'universal' training to provide same skills to labourers so renovations are done at the same level throughout Europe	Skills need to be certified and reflected in working conditions including salary	Attract children already in schools to think about starting a career in the construction sector
Cooperation of students (from different areas of expertise in the construction industry) already in their university phase. Interdisciplinary information exchange > the creation of agile interdisciplinary solutions.	More support cooperation between schools and practice	Adding local experiences & best practices to the training	Attract youngsters to construction industry through digitalisation of industry	

### Existing initiatives

The following initiatives were raised by stakeholders during the meeting:

1. There are many examples of collaborations between educational institutions and the industry on promotion of the sector in schools and in dual system education (or apprenticeships):
2. Several Member States offer 'dual systems' (or apprenticeships). Dual systems allow educational institutions to partner with companies to offer on-the-job training to young people. The participants raised the case of Germany, Spain<sup>2</sup> and France.
3. In Germany, the craft sector promotes crafts in primary and secondary schools. They also have put in place a website to draw public attention, inform about training and opportunities in the sector.<sup>3</sup>
4. In the Netherlands, the water-management industry prepared little playing packages for children.<sup>4</sup>
5. In France, the system of 'alternance' allows students to work in a company while they complete their higher education.<sup>5</sup>

<sup>2</sup> Link to the Spanish dual system initiative: <https://www.todofp.es>

<sup>3</sup> Links to the German initiatives: (1) <https://scivet.de/> ; (2) <https://www.handwerk.de/>

<sup>4</sup> Link to the Dutch water management industry initiative: <https://www.rijkswaterstaat.nl/over-ons/onze-organisatie/rijkswaterstaat-voor-de-jeugd>

<sup>5</sup> Link to the France Alternance initiative: <https://aaaparis.net/en/the-introduction-of-alternance/#/>

6. The 'Build UP Skills Advisor' app allows busy workers to learn when they have time and also check the quality of performed work.<sup>6</sup>
7. The 'doughnut' approach to transform construction in the City of Amsterdam.<sup>7</sup>
8. There are specific sectoral social organisations, such as 'SOKA-BAU' in Germany.<sup>8</sup>
9. In Spain, the Fundación Laboral de la Construcción bi-partite body supports and carries out training sessions in construction.<sup>9</sup>
10. In Germany, there is a pilot project called 'Berufsstart Bau': young people have the opportunity to receive training in a specific construction occupation in inter-company training centres. This training is supplemented by company internships. The inter-company training centres cooperate with the construction companies located in the region. The costs are mainly reimbursed by SOKA-BAU.<sup>10</sup>
11. In the Czech Republic, there is an online educational tool called StaWEBnice for PCs, tablets and mobiles. The app uses interfaces that are popular among the young generation and features many videos, photos, VR models and tests as well as text. The tool has been very useful in COVID-19 times for distant education.<sup>11</sup>

### Actions to take forward for the development of the transition pathway

Below we list the key actions identified by stakeholders during the meeting:

- I. Using the sustainable finance agenda to drive investment to training. There is substantial demand for green investments, and currently investments go to assets, operations and businesses. Instead, we could direct more investments to skills, capacity building and training.
- II. Quickly adapting the curricula of educational institutions, vocational training and upskilling programmes.
- III. Reinforcing cooperation and partnerships to push for a quicker transfer of innovative materials.
- IV. Examining best practices from city initiatives and other local projects to identify the kind of skills necessary to build a resilient construction sector. The Commission could bring together regional networks and cities to discuss.
- V. Developing more co-creative policy labs to bring forward the needs and what is expected from the construction industries and from cities.
- VI. Supporting and guiding the transition with certification initiatives for the industry and for the people who complete training sessions.

## Theme 2 – Enhancing climate resilience and adaptation

*Mr Stephen RICHARDSON, Director Europe of the World Green Building Council, facilitated the second discussion. He introduced the topic by stressing the importance of long-lasting buildings. The events of the past few years have shown that our built environment is incredibly vulnerable to a changing climate.*

<sup>6</sup> Link to the Build Up Skills Advisor App initiative: <https://www.igbc.ie/education/energy-renovation-upskilling/>

<sup>7</sup> Link to the Amsterdam City Doughnut strategy: <https://assets.amsterdam.nl/publish/pages/867635/amsterdam-city-doughnut.pdf>

<sup>8</sup> Link to the SOKA-BAU initiative: <https://www.soka-bau.de/europa/gb/services/working-in-germany>

<sup>9</sup> Link to the Fundación Laboral de la Construcción initiative: <https://www.fundacionlaboral.org/en/>

<sup>10</sup> Link to the Berufsstart Bau initiative: <https://www.soka-bau.de/arbeitgeber/leistungen/berufsausbildung/berufsstart-bau>

<sup>11</sup> Link to the StaWEBnice initiative: <https://www.stawebnice.com/>



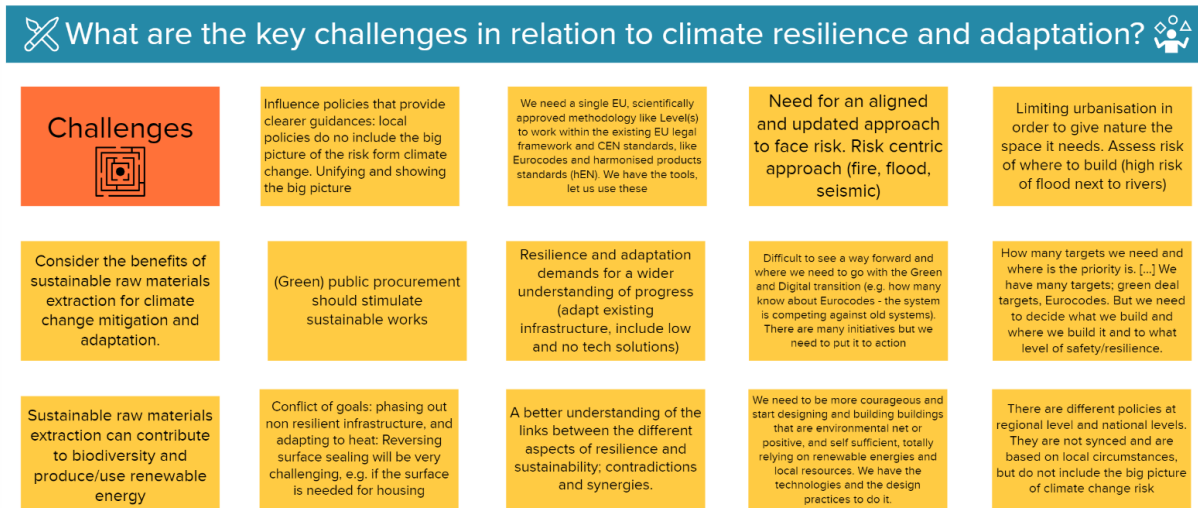
Climate has already changed and continues to change. No one knows where the tipping point of the climate crisis will be, so resilience to climate change is vital for our built environment.

### Challenges related to climate resilience and adaptation

The key challenges raised by stakeholders during the meeting were:

- The need for a holistic overview on the risks related to climate change in Europe. This will help to align and harmonise policies at the regional and national levels. Different regions face different challenges (for instance, coastal regions face different challenges from regions of the interior), but we need to work on a solution together, and not separately.
- The need for a risk-centric approach to construction (focused on fire, flood, seismic shocks, etc.). The process of urbanisation and the expansion of cities need to take into account the threat of natural disasters.
- The need for a single EU, scientifically approved methodology like Level(s) to work within the existing EU legal framework and CEN standards. Good examples are the Eurocodes and harmonised products standards (hEN).
- The risk of spreading over too many targets with the many initiatives that are currently running in parallel (Green Deal, Eurocodes, clusters). We need to focus on making concrete decisions about what we need and will build, where we build, and to what level of safety/resilience.
- Need for better forecasting and modelling to come up with adapted measures for each vulnerable area/building/infrastructure.
- The need for a better understanding of the contradiction and synergies between the different aspects of resilience and sustainability.
- The need to consider the possibility of sustainable raw material extraction.

The visual below presents the inputs from the discussion and the chat on the challenges related to climate resilience and adaptation.



### Existing initiatives

- The European Standardisation Organisation's Adaptation to Climate Change Coordination Group is working with technical committees to update the national data used to set Eurocodes

standards to take into account future climate (not just historical data). This programme was mandated by the Commission.<sup>12</sup>

2. There are already citizen assemblies, citizen councils and round tables to help navigate conflicting interests among stakeholders. The Bauhaus Initiative is a good example.<sup>13</sup>
3. The Fire Protection Research Foundation published a report that focuses on how to take a risk-based approach to resilience.<sup>14</sup>
4. DG MOVE runs projects on mobility infrastructure (highways, bridges etc.) in which it tries to come up with particular risks which should be taken into account. These risk assessments, however, cannot be general and will need to be tailored to the location of interest. While there is a coherent and good policy at the high level, we need more variation on the ground.<sup>15</sup>
5. Life in Quarries is an initiative for sustainable raw material extraction.<sup>16</sup>
6. The Consortium Grensmaas<sup>17</sup> is an example of sustainable raw material extraction that benefits climate change mitigation and adaptation. The consortium pays for flood protection and the creation of natural reserves with the extraction of gravels.

### Actions to take forward for the development of the transition pathway

Listed below are the key actions identified by stakeholders during the meeting:

- I. Providing support to forecasting and modelling activities by competent experts in both public and private institutions. Modelling is key to enable engineers, architects and contractors to build buildings that are resilient to climate risks. Public institutions should direct research funding to these activities.
- II. Raising awareness to ensure that there is an increased understanding about why a resilient built environment is needed among industry, political operators and the general public.
- III. Ensuring coordinated rollout of existing frameworks such as Eurocodes, Level(s) etc. We need to make sure that we use those tools effectively and join the dots between them.
- IV. Involving local actors (business and public) and putting tools in their hands so they can take action at their level. Resilience will need to be addressed from different perspectives and speeds of transition.
- V. Ensuring sustainable long-term access to primary and secondary construction raw materials. Supply should not be taken for granted.

## Theme 3 – Building a resilient construction industry

*Mr Ulrich PAETZOLD, Owner of Ulrich Paetzold EU-Consulting*, facilitated the discussions on the third topic. He cited the three important topics mentioned in the agenda for the theme, namely: the competitiveness of the ecosystem and innovative business models, the resilience of the ecosystem and its supply chains

<sup>12</sup> Link to the The European Standardisation Organisation's Adaptation to Climate Change Coordination Group: <https://www.nen.nl/en/europees-project-adaptation-to-climate-change>

<sup>13</sup> Link to the Bauhaus initiative: [https://europa.eu/new-european-bauhaus/index\\_en](https://europa.eu/new-european-bauhaus/index_en)

<sup>14</sup> Link to the Fire Protection Research Foundation report: <https://www.nfpa.org/%7E/media/Files/News%20and%20Research/Fire%20statistics%20and%20reports/Building%20and%20life%20safety/RFGreenBuildings2020.pdf>

<sup>15</sup> More information available at: [https://transport.ec.europa.eu/index\\_en](https://transport.ec.europa.eu/index_en)

<sup>16</sup> More information available at: <http://www.lifeinquarries.eu/en/>

<sup>17</sup> More information available at: <https://grensmaas.nl/>

(e.g. construction material shortage), the importance of providing a stable regulatory framework and predictable business environment.

### Challenges related to building a resilient construction industry

The key challenges raised by stakeholders during the meeting were:

- a. The need to include local resilience in the follow-up of the evaluation of the National Recovery and Resilience Plans (NRRPs).
- b. The need to redirect financial flows towards any business model that helps the construction sector to be resilient. If that requires a more local approach then we should ensure that there is a financial reward for that taking such initiatives.
- c. Tackle problems caused by the unforeseen sharp price increase and shortages in materials for construction and shortages.
- d. The lack of price revision clauses in contracts is causing a lot of problems in construction companies. The need to make better use of public procurement to foster innovation.
- e. The need to look thoroughly at competition issues with third-country competitors.
- f. The dependence on international value chains and the lack of strategic self-sufficiency for the production of basic building components (steel, plastics...) at EU level.
- g. The need for Europe to ensure access to primary and secondary resources for materials.
- h. Traditional business models need to change. New business models should be about working with what we have, instead of just taking something out of the earth and using it for construction. It is a hard step to take for businesses to adopt this kind of approach, to come up with new business models that include more recycling, reducing and reusing. This would require re-educating the clients, whose demand shapes the business models, and architects, who can support the implementation of sustainable infrastructures.

The visual below presents the inputs from the discussion and the chat on the challenges related to building a resilient construction industry.



## Existing initiatives

1. The Sustainable Finance Platform exists but the draft technical criteria are not fit for purpose.<sup>18</sup>
2. There are initiatives among more forward thinking clients to adopt more collaborative approaches to procurement such as open book contracts.<sup>19</sup>
3. The Bauhaus Initiative.<sup>20</sup>
4. The Built for People Partnership (B4P) of Horizon Europe. Innovation is essential in the transition.<sup>21</sup>

## Actions to take forward for the development of the transition pathway

- I. Ensuring reliable, steady and consequent financing of public works (new construction, maintenance and repair activities). This financing should be based on needs and independent from political agendas. It is also key to ensure timely payment of the construction ecosystem. This would also have a positive impact on the planning and provision of labour and capacity by the industry. This action could be driven by Member States and the Commission.
- II. Attracting private capital for both public and private works by creating a favourable environment for investments in infrastructure and buildings by the financial market's regulation of the EU, such as the Taxonomy and the Basel Regulations. Avoid negative consequences for the construction ecosystem when implementing, for example, Basel III rules. This action could be driven by the Commission and financial institutions
- III. Ensuring the inclusion of DG FISMA, REGIO and other 'spending' Directorate-Generals in the process, in order to direct financial flows towards resilient models. This action could be driven by the Commission and Member States.
- IV. Increasing research and development on better use of materials (less/circular), the transition to circular business models and the production of quality recycled materials, reducing dependency on sources outside the EU and the vulnerability to price volatility, respecting technological neutrality, i.e. without taking political decisions on the 'best technology' (better left to technical experts). This action could be driven by the industry, with public support for research and development.
- V. Diversifying the sources of import of material which the EU cannot produce internally.
- VI. Creating a level playing field between EU and non-EU companies in both legislation and practice (for businesses, workers and material). This is particularly important in the cases in which third-country state-owned enterprises enter the EU internal market and affect fair competition. This action could be driven by Member States and the Commission.

<sup>18</sup> Link to the Sustainable Finance Platform initiative: [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance/platform-sustainable-finance_en)

<sup>19</sup> For more information on Open Book Contracts, see for example:

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/525283/obc\\_m\\_guidance\\_final.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/525283/obc_m_guidance_final.pdf)

<sup>20</sup> Link to the Bauhaus initiative: [https://europa.eu/new-european-bauhaus/index\\_en](https://europa.eu/new-european-bauhaus/index_en)

<sup>21</sup> Link to the Built for People Partnership (B4P) initiative:

[https://ec.europa.eu/info/sites/default/files/research\\_and\\_innovation/funding/documents/ec\\_rtd\\_he-partnerships-built4people.pdf](https://ec.europa.eu/info/sites/default/files/research_and_innovation/funding/documents/ec_rtd_he-partnerships-built4people.pdf)

## Annex – List of participating organisations

3M	European Environmental Bureau
AIA Eur	European Federation of Building and Woodworkers
ANAEP A Confartigianato Edilizia	European Panel federation
ANCE	European Steel Association (EUROFER)
Architects' Council of Europe	Eurovent
Austrian Institute of Construction Engineering (OIB)	Federal Ministry of Internal (DE)
BDM (BE)	Federal Ministry of the Interior, Building and Community (DE)
BIBM - Federation of the European Precast Concrete industry	FEP
Blm A (Institute for Federal Reals Estate - BE)	Fire Safe Europe
BOUYGUES Europe	Fraunhofer ISI
Brick Association of Czechia and Moravia	Government Offices of Sweden
Build Europe	HeidelbergCement
Bundesarchitektenkammer BAK	ILNAS-Market Surveillance Authority (LU)
CASAIS Engenharia e Construção (PT)	Instytut Techniki Budowlanej (PL)
CEI-Bois	ITeC (ES)
CEMBUREAU	Joint Research Centre (JRC)
CINEA	Karuk"Asher Ltd (IL)
COBATY International	Le Forem (BE)
Confartigianato Imprese (IT)	Living Future Europe
Confederación Nacional de la Construcción (ES)	Ministry for Infrastructure (MT)
Construction Products Europe AISBL	Ministry for Innovation and Technology (HU)
Danish Housing and Planning Authority	Ministry of Business and Trade (CZ)
DBC (DE)	Ministry of Development and Technology (PL)
DG GROW	Ministry of Economic Affairs and Communications (EE)
EBC	Ministry of Economic Development and Technology (PL)
ECAP	Ministry of Environment (CZ)
ECCE European Council of Civil Engineers	Ministry of Environment (LT)
ECOS (BE)	Ministry of Industry and Trade of the Czech Republic (CZ)
ECSPA - European Calcium Silicate Producers Association	Ministry of Regional Development and Public Works (BG)
EFBWW	Ministry of the Ecological Transition (FR)
EMO	Ministry of Transport and Construction of the Slovak Republic (SK)
ESWA	Nadace pro rozvoj architektury a stavitelství (CZ)
EUEW - European Union of Electrical Wholesalers	NBN Owens Corning
EURIMA	Permanent Representation of Croatia to the EU
EuroACE	Permanent Representation of Denmark to the EU
EUROLUX (European Group for Rooflights and Smoke Ventilation)	PwC
European Aggregates Association (UEPG)	RICS
European Aluminium	RINA Consulting
European Asphalt Pavement Association (EAPA)	SMEunited
European Builders Confederation	Sunthalpy (ES)
European Cellulose Insulation Association	Svenskt Trä (SE)
European Construction Industry Federation	Tata Steel
European Copper Institute	
European Council of Civil Engineers	

Ulrich Paetzold EU-Consulting
UNI (IT)
Uniep
Università degli Studi di Brescia
VOEB
World Green Building Council

ZDB - Zentralverband des deutschen Baugewerbes (DE)
ZDH
ZOE Institute for Future-Fit Economies

*Disclaimer: The list of participating organisations is based on the registrations.*

**HIGH LEVEL**

**CONSTRUCTION**

**FORUM**