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Civil Engineers

CONSTRUCTION NEWS

"The future of the Construction Sector in the COVID-19 era"

by Aris Chatzidakis, ECCE President

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ECCE participates in the following forums related with the Construction Industry:

- **High Level Tripartite Forum**
- **Thematic Group 1 “Stimulating investment in building renovation, infrastructure and innovation”**
- **European Construction Forum**
- **Construction 2050 Alliance**

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High Level Tripartite Forum

EUROPEAN COMMISSION
Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Sustainable Industry and Mobility
Circular economy and Construction

- The **8th Meeting of the High Level Tripartite Forum was held virtually on 17 June 2020**.
- *Agenda of the 8th Meeting of the High Level Tripartite Forum*
- *Presentations delivered during the 8th Meeting of the High Level Tripartite Forum*
- **ECCE President Aris Chatzidakis participated in the HLF meeting.**
- **The official launching of the "Construction 2050 Alliance" took place at the opening of the meeting.**

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High Level Tripartite Forum
Key messages

- **On June 17, 2020, the High Level Forum of Construction 2020 gathered for the eight time.** Due to the COVID-19 crisis the meeting was held only online for the first time. Over 100 participants came together, representing various parts of the European construction sector ecosystem: businesses, skilled workers, the European Commission and a good number of Member State governments.

- **The COVID-19 health crisis impacted not only the way the meeting was conducted, but also the construction sector itself.** Construction has always been cyclical – but it is now facing a unprecedented crisis with a drop of activity of 50% in Q2, 25% estimated in Q3 and 12% expected in Q4. Participants confirmed that the consequences are financial distress and liquidity concerns, particularly for SMEs. Experiences shared by sector stakeholders highlighted the difficulties encountered in their supply chains and in coping with extra sanitary measures. However the impact and expected recovery are uneven between Member States – with some much more affected than others.

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High Level Tripartite Forum
Key messages

- Nevertheless, participants agreed that **recovery and investing in the future of Europe's built environment can be turned into a win-win opportunity** and support the long-term ambitions of **a green, digital and resilient Europe**. The Green Deal and the Renovation Wave, the Industrial strategy and Circular Economy Action Plan, and the Next Generation EU Recovery Plan will together provide public investments and strategic direction towards these goals.

- **Such a recovery will require an integrated and holistic approach that brings together the whole construction sector ecosystem**. Already during the meeting, stakeholders pointed out various aspects, such as the need for the proper skills to implement the Renovation Wave, paying attention to localised value chains and having a circular economy approach, the importance of ensuring that SMEs can access funding and assessing the needs of building users and their ability to pay rents.

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High Level Tripartite Forum
Key messages

- A representative from the German Federal Government, confirmed that construction will be one of the main focus areas of the German Presidency of the Council in the second semester of 2020. Germany intends to support the promotion of sustainability and circularity in buildings, construction products and the built environment.

- Many more issues were discussed and there is a clear **need to continue working towards a continued dialogue that can strengthen resilience and support recovery** – engaging the European Commission, Member States and stakeholders. Such dialogue could also help speed up the delivery of the actions needed and include ongoing initiatives (such as the funding opportunities for the built environment and the assessment of national recovery plans in this respect, construction products regulation, sustainable public procurement, etc). Right now, the European Commission is preparing the future Renovation Wave initiative and is inviting feedback and ideas from stakeholders via a public consultation.

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Thematic Group 1

(1)

EUROPEAN COMMISSION

Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

Sustainable Industry and Mobility

Circular economy and Construction

- The **Thematic Group 1 "Stimulating investment in building renovation, infrastructure and innovation" meeting** was held on **8th November 2019**, in Brussels.

- **ECCE Vice President/ President Elect Andreas Brandner** participated in the meeting representing ECCE.

- The meeting consisted of the following parts:
  - Part 1 – Investing in affordable and sustainable built environment
  - Part 2A – Digitalisation and innovation
  - Part 2B – Digitalisation and innovation
  - Part 3 – Beyond Construction 2020

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Thematic Group 1
Key messages

Part I: Investing in an affordable and sustainable built environment

- Need to renovate the entire EU building stock by 2050 with an approach focusing on carbon neutrality
- The ICMS coalition prepared an international standard for life cycle costing aiming to bring a consistent approach to enable comparing information resulting in better decision making
- Significant reductions in public spending in social housing over the last years produce an investment gap of 7bn (or 57bn accounting also for energy efficiency needs)
- EIB presents a number of tools to support financing investments over 25 mln
- Question remains on how smaller investments can be facilitated
- An actionable approach to energy efficient renovations involving a deep dive in the technical elements of renovation can achieve is feasible and can achieve significant cost savings (up to 50%)
- The transition of the labour force is an issue that needs to be addressed when moving towards more off site construction.

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Thematic Group 1
Key messages

Part II: Digitalisation and innovation

- The uptake of existing digital trends can help increase the productivity of the construction sector
- 3D printing and the use of drones present an increased uptake passing to more mature market phases
- The construction sector is the larger adopter of drones as they can support infrastructure diagnostics without hindering everyday life
- Increased digitalization can improve the performance of the economy, but solutions need to go beyond digital paper
- Standardisation, structuring and reuse of data with interconnecting databases provides a spectrum of opportunities (example of Estonia)
- The development of BIM based permit checks through SSRS funding is an example application
- Need to develop an appropriate client culture to embrace the potential of new technology and facilitate its uptake

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Thematic Group 1
Key messages

Part II: Digitalisation and innovation

- EU BIM Task group brings together public procurers developing the public clients into role model clients increasing transparency and technology adoption of digital solutions
- Example of everything coming together in BIM SPEED showcasing digitalization and renovation uptake potential
- Asset management and data security highlighted as areas of focus
- Too many BIM solutions on the market Need to assess what is already available in matters of solutions compared to what is needed.
- Digital Innovation Hubs can be engines to promote innovation, testing applications, develop an ecosystem and support market uptake
- Need for targeted support to innovation not only via financing support but also hearing the sector needs for knowledge, networks and standards
- In countering the costs of using new technologies it is important to develop common standards and showcase the value of the availability of data for better decision making

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Thematic Group 1
Key messages

EC initiatives

- Study to develop an EU Framework for the Digital Building Logbook - Inviting stakeholders to consider their participation
- Study on the digitalisation of the construction sector SMEs Identified gaps in promoting digitalisation and suggested actions to overcome them Follow up actions
  - Need to be attentive on the overlaps with existing projects
  - Understand differences in approaches to SMEs (think also of languages of communication)
- Revisions of energy efficiency and use of renewables targets (DG ENER)
  - Focus on promotion of renovation of buildings
  - Modernisation of buildings with the use of smart technologies
- Development of a New instrument SRI (Smart Readiness Indicator) for Buildings Similar to energy labelling
- Proposal for Co programmed Partnership Sustainable Built Environment (Horizon Europe)

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Thematic Group 1

The presentations delivered in the Thematic Group 1 meeting are linked below:

- ICMS - An International standard for benchmarking, measuring and reporting construction and life-cycle cost
- EIB Financing for Social and Affordable Housing
- INDU – ZERO
- PWC Digital trends in the Construction sector
- Defragmenting the Construction Industry (Estonia)
- EUBIM TaskGroup
- BIM-SPEED Develop BIM tools for a smarter, more efficient, method of deep renovation for the residential building sector
- Digital Innovation Hubs for the Construction sector The case of the "nZEB Smart Home"
- Study on the Development of a European Union Framework for Buildings' Digital Logbook
- Supporting digitalisation of the construction sector and SMEs
- Beyond Construction 2020 – Conclusion from the assessment of Construction 2020
- TG1 Key Conclusions

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Construction 2050 Alliance

(1)

- The **"Construction 2050 Alliance"** is a newly established group of 46 European organisations working together to advance the needs and priorities of the wider construction and built-environment sector at EU level.

- The European Construction Forum (ECF) members in which ECCE has been participating for many years now recognized the need for a more structured and proactive approach as well as the need for strengthening the visibility of the construction sector and reinforcing the cooperation between the various stakeholders of the whole value chain.

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Construction 2050 Alliance (2)

- The Construction 2050 Alliance has been established because the sustainable Europe of tomorrow cannot be achieved without all the actors involved in the construction process. For this to happen at the EU level in Brussels, the Construction 2050 Alliance aims at coordinating common political messages of the construction value chain and raise the political importance of the sector at the European level.

- The initiators of the idea of the "Construction 2050 Alliance" were CECE (Committee for European Construction Equipment), CPE (Construction Products Europe), EBC (European Builders Confederation) and FIEC (European Construction Industry Federation).

- The idea of the C2050 Alliance came up while the **Construction 2050 paper** published in June 2019 was being drafted. The Construction 2050 paper is now endorsed by all the members of the C2050 Alliance.

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Construction 2050 Alliance
Main messages

By optimising the way construction works, we will improve the life of European citizens by providing higher value with fewer natural resources and higher quality assets for owners and users.
Construction is the solution industry: addressing the challenges that the construction sector is facing means addressing the challenges of European citizens. To ensure this, the Construction 2050 Alliance will develop activities in order to reach four main targets:

1. A specific targeted approach to construction because the sector is at the crossroads of different value chains and its unique nature requires a unique approach.
2. An adaptable policy framework to address the evolving construction ecosystem and the transformation of the industry.
3. A holistic approach towards policy making in order to implement coherent and balanced policies and legislation.
4. A strong partnership between the European institutions, the Member States and construction stakeholders to steer the transformation of the sector with the most adequate policies and tools.

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Construction 2050 Alliance

Draft Work Programme

July 2020 – July 2022

1. Construction: the solution for Europe's recovery

The COVID-19 pandemic has deeply disrupted the EU economy, the life of European citizens and business actors. The EU construction value chain has not been spared from those challenges. Urgent and unprecedented actions are necessary to promote ambitious measures for a revival of the entire sector. Moreover, the construction value has a crucial role to play for Europe's economic recovery. The Alliance will follow the developments of the EU Recovery Plan and related measures, as regards the short/medium-term recovery of Europe's economy as well as its long-term prosperity.

2. The contribution of the built environment to the EU Green Deal

As the lead initiative of the European Commission, this should be a key focus of our Work Programme for 2020 and 2021. The Construction 2050 paper mentions Sustainable construction & De-carbonisation as relevant points that have a direct link with the Green Deal and the EU Climate Law. The Alliance can contribute to these debates, based on exchanges of views and consensus within its membership.

Construction 2050 Alliance
Draft Work Programme
July 2020 – July 2022

The following topics and work areas were identified as the main building blocks of the EU Green Deal that have a direct link with our sector.

- Implementation of the EU Recovery Plan in relation with the EU Green Deal's objectives
- The road to zero-emission & sustainable buildings
- Sustainable and Smart mobility/infrastructure
- Energy efficiency & the renovation wave
- Circular economy

3. The human factor in construction

As identified in the Construction 2050 paper, "More, better and safer jobs" is the number one contribution by our sector to the livelihood of the European economy. The underlying objective is to improve the image of the industry, by setting adequate career paths and improving working conditions. The impact of the Covid-19 crisis on employment levels, as well as the necessary adjustments in working conditions to protect our workers from the pandemics, should also be considered, as well as our sector's positive contribution to restore and create jobs, hence supporting Europe's recovery.

It is fundamental to bear in mind that most of these aspects are driven by national politics and policies or are funded with EU resources managed at local/national level. However, the human factor in construction remains a key element to be highlighted. The Alliance must be able to raise this with policy-makers even if most of solutions are not to be found at the EU level.

Construction 2050 Alliance
Draft Work Programme
July 2020 – July 2022

The main topics under this priority were identified:

- Creating added value jobs and positively contribute to the recovery of local economies
- Skills: availability of adequate skillsets as pre-condition for digital & green transitions
- Safety and health in construction
- Training, re-skilling, up-skilling and cross-skilling of the construction labour force
- Automation & robotization to face labour shortages and demographic changes

4. Relaunching the Construction 2050 Strategy

European Commission's Construction 2020 Strategy was the catalyser for a renewed collaboration effort within the whole construction and built environment sector as well as improved cooperation across various European Commission DGs. In spite of some shortcomings, Construction 2020 and its High-Level Forum were indeed instrumental in raising the specificities of the construction industry and all the links that exist with workers, society, clients and final users.

This is why the Alliance should keep a high level of prioritisation on the relaunch of the Strategy, most of all concerning its setup and goals.

Construction 2050 Alliance
Draft Work Programme
July 2020 – July 2022

5. EU Data Strategy: a construction approach

As part of the goal to make Europe "fit for the Digital age", the Commission has presented an EU Data Strategy in early 2020. This strategy will look at concrete ways to make it easier but safer to transfer and share data in industrial contexts and in the framework of B2B relations. The strategy will be made operational and binding with an EU Data Act in early 2021.

It is interesting for the construction value chain that even on such an overarching inter-sectoral policy area there is some common understanding. This may prove useful also in further developments of actions such as DigiPLACE.

6. Communication Strategy of the Alliance

Since the beginning, communication should be central to the Alliance's activities and should always be the main way to reach out to a wider audience. From the outset, attention and resources should be devoted to the following elements and deliverables:

- Drafting a Communication strategy
- Creating the logo and corporate identity of the Alliance
- Opening a website for the Alliance – domain www.euconstruction2050.eu was secured
- Opening social media channels for the Alliance – using #EUConstruction2050

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Construction 2050 Alliance

COVID-19 crisis statement

March 2020

(8)

Covid-19 crisis

The European construction sector calls for urgent measures to protect workers' health, support economic activity and accelerate the recovery

March 2020

European Council of Civil Engineers

Construction 2050 Alliance

COVID-19 crisis statement

March 2020

The European Council of Civil Engineers together with the undersigned European associations, representing the construction sector, in light of these difficult times the world is fighting facing the Covid-19 outbreak, wish to reiterate our commitment to supporting public authorities as well as our dedication to our most fundamental asset, our workers' wellbeing.

Jointly, we call upon the European Commission to support the sector to:

- Ensure health of its workers
- Maintain economic activity
- Accelerate the recovery

We ask the European Commission to open a dialogue as soon as the circumstances allow it, in order to jointly identify and implement appropriate measures to limit the downturn and facilitate a rapid recovery of all construction activities.

The **joint statement** was sent to the European institutions (President, VP of the EU Commission, EU Council and EP).

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Construction 2050 Alliance

Public event

2nd December 2020

- The C2050 Alliance will host a public event in order to take part and influence the most relevant debates around the **European Recovery Plan** and the **Renovation Wave**.
- In order to prepare such event and try and develop some common messages, an **internal working meeting of the C2050 Alliance will be held on 29th October at 9,30am**.
- ECCE President will participate in this working meeting on behalf of ECCE.
- During the working meeting the common messages to be presented during the public event will be discussed and agreed upon.

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Renovation Wave Initiative

- The **Renovation Wave initiative** is a priority under the European Green Deal and the recovery plan for the EU, aimed at **increasing the rate and quality of renovation of existing buildings and thereby help decarbonise the building stock.**

- Given the relatively labour-intensive nature of renovation work and the way in which this matches the "green, digital and resilient" ambition of the Commission recovery package, the Next Generation EU Communication talks of regulatory and financial support to "at least doubling the annual renovation rate of existing building stock".

- The Renovation Wave Initiative is one of the main fields of focus for ECCE as well as for the Construction 2050 Alliance.

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Renovation Wave Initiative

- ECCE contributed to the Public Consultation on the Renovation Wave Initiative. ECCE's response to the Public Consultation can be accessed here.

- ECCE has also addressed an additional Statement on the Renovation Wave Initiative to the DG ENERGY which highlighted the need of a holistic approach to the buildings' renovation following the Sustainable Structural Design (SSD) methodology principles.

- The statement is presented in the following slides.

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Renovation Wave Initiative (3)

ECCE's Statement

ECCE's statement regarding the EU Commission's "Renovation Wave Initiative"

The European Council of Civil Engineers (ECCE) welcomes the new initiative of the European Commission to launch a 'Renovation Wave' for public and private buildings to address the twin challenge of energy efficiency and affordability.

As the communication states "An integrated approach to building renovation means boosting
energy performance of buildings by applying the 'energy efficiency first' principle, deploying renewables, preparing for climate impacts, deploying urban green and blue infrastructure and incorporating circular economy, waste treatment and pollution prevention principles."

Although we agree with the concept of a wider and integrated approach of renovation, we have to remark that it is still far from a holistic view of the problem of maintaining and upgrading the performance of existing buildings and infrastructure. We would like to state that renovation and retrofitting works need to be done in parallel with other necessary interventions so that the essential requirements established in the construction products Directive are also respected.

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Renovation Wave Initiative (4)

ECCE's Statement

We would like to remind that according to the existing Directives structures shall fulfill the following essential requirements:

- Structural resistance and stability
- Safety in case of fire
- Hygiene, health and the environment
- Safety and accessibility in use
- Protection against noise
- Energy economy and heat retention
- Sustainable use of natural resources

The vast majority of the existing European building stock has been built without modern provisions for earthquake resistance and energy efficiency, resulting in seismic vulnerable and low energy performance buildings.

Europe's basic traffic (road and railway) infrastructure was built mainly between the years 1950-1980. It counts already 40-60 years of life. When the infrastructure was designed and constructed, technical knowledge was quite different as far as several factors of outmost importance in designing are concerned. That is durability maters, earthquake risk and seismic loads, analysis methods and modeling facilities, pollution impact on ageing process of structures and completely different, less heavy, traffic loads.

European Council of Civil Engineers

Renovation Wave Initiative
ECCE's Statement

These assets of European countries need urgent maintenance and retrofitting to keep their value and meet today's functional and safety standards. They need to be upgraded if Europe wants to maintain its productive and human life respect standards.

This represents a huge renovation and maintenance volume which Europe has to deal with during the next years. And what is more, this has to be carried out in a sustainable and innovative way. The application of research based, advanced asset and risk management methodologies, is necessary in order to further increase the efficiency of interventions.

Additionally, in the Directive (EU) 2018/844 of 30 May 2018, in Article 7, it is stated that:

'Member States shall encourage, in relation to buildings undergoing major renovation, high-efficiency alternative systems, in so far as this is technically, functionally and economically feasible, and shall address the issues of healthy indoor climate conditions, fire safety and risks related to intense seismic activity.'

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Renovation Wave Initiative

ECCE's Statement

Sustainability has become one of the most ambitious challenges for Europe's growth, according to 2020 Europe Strategy. The construction sector bears a huge responsibility in relation to sustainable development because of several impacts that derive from its three dimensions: environment, economy and society.

A building has to fulfill its own performance not only in the abovementioned common triple-bottom line of sustainability, but also in usability, capacity, reliability, safety and comfort. In this context, designing a sustainable construction turns out to be a very complex issue and therefore a holistic approach is the key for sustainability in the construction sector.

The construction sector needs to develop new ways and methods from the conception to the construction of structures, aiming to achieve a competitive sustainable building market. In order to obtain this European objective, a new design methodology is needed, focusing on a multi-performance and life-cycle oriented approach. Sustainable Structural Design (SSD) methodology addresses the possibility to include environmental aspects from the very beginning of the project in structural design, so that proper decisions with regard to design options can be made in the most influential stages of design. The new generation of Eurocodes will enlarge our understanding for sustainability.

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Renovation Wave Initiative
ECCE's Statement

For existing buildings SSD means that when renovation projects of a certain scale are undertaken, structural upgrade should be considered and funded jointly with functional and energy efficiency upgrade.

It is reasonable to state that investing in siloed energy efficiency renovation schemes overlooking building's safety is unwise to say the least, even more in seismic hazard regions, where the first seismic episode after renovation may bring down all the energy-efficient renovated unsafe buildings.

So, we would like to state that this renovation wave shall promote and fund interventions according to the holistic approach of upgrading the existing buildings and infrastructure and of course structural safety shall be the first target of renovation.

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European Pilot Project "Integrated techniques for the seismic strengthening and energy efficiency of existing buildings" (1)

European Commission

QUICK LOOK

Constructing a safer Europe

Providing knowledge to save lives from earthquakes that threaten homes and public buildings across the EU.

Building our economy

A holistic approach that saves time and money by combining seismic retrofit and energy efficiency improvements.

Designing for our environment

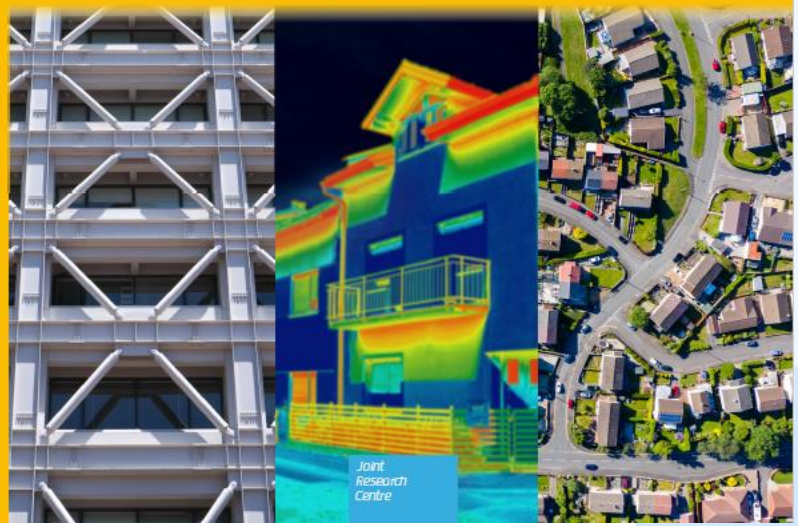
Decreasing CO_2 emissions through structural and energy improvements that avoid the need to demolish and rebuild at-risk homes.

Preserving the charm and history of the EU

Ageing buildings hold an important part of a region's history and cultural identity. Therefore, each retrofit and upgrade preserve an irreplaceable element of the EU.

EUROPEAN PILOT PROJECT

INTEGRATED TECHNIQUES FOR THE SEISMIC STRENGTHENING AND ENERGY EFFICIENCY OF EXISTING BUILDINGS



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European Pilot Project "Integrated techniques for the seismic strengthening and energy efficiency of existing buildings" (2)

OVERVIEW

This Pilot Project will put forward a **holistic approach** to improve simultaneously the seismic safety and energy efficiency of the European building stock. Earthquakes threaten a large percentage of homes and public buildings across the EU. At the same time, inefficient energy consumption of outdated buildings is a major source of greenhouse gas emissions. Our sustainable approach will combine renovation efforts that reduce building vulnerability to **protect lives** and will update the energy efficiency of ageing structures to significantly **reduce CO_2 emissions** and **tackle energy poverty**.

We tailor our analysis to building typologies, climatic and seismic exposure in each Member State identifying suitable intervention scenarios and measures that incentivise funding and investments in risk-proofed infrastructure. Our findings will help achieve longstanding policy goals and provide industry with innovative methods to **modernise EU buildings**. What's more, our success will help preserve our rich architectural identity.

The Pilot Project directly supports several European Commission priorities including the **Green Deal**'s call for renovating in an energy and resource efficient way. It provides the technical background in support of the **Renovation Wave** initiative and an **EU Action Plan** to modernise the European building stock.

Participate in our efforts through upcoming workshops on scientific output and policy achievements. Join our community of policy makers, industry players, experts, associations and organisations as together we design a **safer**, **resilient** and more **sustainable** EU!

ACTION 1 — Overview and classification of technologies for **seismic strengthening** and **energy upgrading** of existing buildings

ACTION 2 — Analysis of technologies for **combined upgrading** of existing buildings

ACTION 3 — **Methodologies for assessing** the combined effect of upgrading

ACTION 4 — **Regional impact assessment** and proposals in support of an **Action Plan**

ACTION 5 — **Stakeholders' engagement** to ensure the sustainable implementation of the Pilot Project

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European Pilot Project "Integrated techniques for the seismic strengthening and energy efficiency of existing buildings" (3)

- The European Commission's Joint Research Centre organised the side event 'Seismic and energy retrofit of buildings' within the 18th European Week of Regions and Cities.

- This event presented the pilot project 'Integrated techniques for the seismic strengthening and energy efficiency of existing buildings', which aims to support initiatives under the Green Deal (e.g. Renovation Wave) and make EU regions safe and resilient.

- **ECCE ExBo Member Platonas Stylianou** represented the European Council of Civil Engineers in this event. The Agenda of the JRC event can be accessed here.

- Prior to this event **ECCE President Aris Chatzidakis** had a meeting with the Project Officer, Mr. Georgios Tsionis, to discuss ECCE's campaign and to explore possible ways of cooperation.

- This European Pilot Project concurs with ECCE's views on the need for a holistic approach when it comes to the renovation of the existing buildings which are stated in ECCE' 3S Initiative.

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Spotlight on Infrastructure Investment

(1)

- **An International Monetary Fund (IMF) report has recommended that governments invest in infrastructure spending as a response to Covid-19.**

- The IMF's most recent *Fiscal Monitor* publication said investment in infrastructure would prepare economies for the transition to the post-Covid-19 world and help create jobs.

- The report said; "increasing public investment in advanced and emerging market economies could help revive economic activity from the sharpest and deepest global economic collapse in contemporary history."

- "It could also create millions of jobs directly in the short term and millions more indirectly over a longer period. Increasing public investment by 1 percent of GDP could strengthen confidence in the recovery and boost GDP by 2.7 percent, private investment by 10 percent, and employment by 1.2 percent".

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Spotlight on Infrastructure Investment

(2)

- According to the IMF, even before the pandemic public investment had been weak for more than a decade; "despite crumbling roads and bridges in some advanced economies and massive infrastructure needs for transportation, clean water, sanitation, and more in most emerging and developing economies.

- "Investment is now urgently required in sectors critical to controlling the pandemic, such as health care, schools, safe buildings, safe transportation, and digital infrastructure."

- The IMF's Fiscal Report can be viewed here.

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THANK YOU