

# A sustainable built environment at the heart of Europe's future



As European decision makers look to develop and define their priorities for the next five years, we urge them to recognise the vital role that the built environment plays in delivering on key European priorities.

The World Green Building Council (WorldGBC) Europe Regional Network represents Green Building Councils in over 20 countries and works with nine regional partners and over 4,500 diverse members across the construction and real estate sector. Together, we are the voice for a sustainable built environment in Europe.

Our vision is for a sustainable built environment at the heart of Europe's future and our mission is to unite our whole sector through action and advocacy that accelerates our shift towards this vision. The WorldGBC Europe Regional Network has identified eight priority areas that must guide and shape actions towards achieving this vision.

## Sustainable buildings at the heart of Europe's future

The European Commission has demonstrated a commitment to tackling key environmental, economic and societal issues by signing up to the Paris Agreement and committing to the United Nations Sustainable Development Goals, and, more recently, the articulation of a vision for a climate neutral Europe by 2050.

The role of the built environment sector in addressing these complex issues is crucial, and sustainable buildings have huge potential in helping to achieve these goals. In fact, it will be impossible to achieve the vision of a climate neutral Europe unless the vast potential in the built environment sector is unlocked.

Only by establishing strong policies that support transformative action can the potential of the sector be realised. Below, we outline the key policy and regulatory changes that European leaders must endorse and champion to realise this potential.



**36%** of all emissions



**40%** of energy consumption



**50%** of extracted materials



**21%** of total water abstracted



**18 million** construction jobs.

# Ambitious policy is needed to enable the transition



## 1. CO<sub>2</sub> emissions

European leaders must recognise the crucial role that the built environment sector plays in achieving Europe's climate protection targets and the goals of the Paris Agreement. This requires a clear quantification of the **contribution that the construction and building sector plays in achieving these targets.**

Although the revised Energy Efficiency Directive and Energy Performance of Buildings Directive provide a solid starting point, further ambition is needed. **The European Commission must urge member states to develop and implement nearly zero energy strategies that go beyond minimum requirements so that all buildings, both new and existing, are net zero carbon by 2050 in line with the goals of WorldGBC's Advancing Net Zero project.**

Ambitious long-term national renovation strategies that support action at local level are key to the delivery of a decarbonised building stock. **The European Commission must work with member states to ensure that they are delivering renovation strategies that increase the rate and depth of renovation in line with climate 2050 goals, embedding the principle of energy efficiency first, followed by integration of renewable energy at building, district and city level.**

**The European Commission must monitor and validate these strategies to ensure that they are increasing the rate and depth of renovation in line with Europe's climate protection targets.** The renovation impact framework being developed by WorldGBC's H2020-funded BUILD UPON2 project should be promoted as a tool to monitor and enhance these strategies<sup>1</sup>.

Addressing operational energy alone will not deliver the EU's vision of net zero emissions, and while efforts to optimise operational performance must continue, **Europe's next generation of leaders must also focus its attention on addressing the full lifecycle emissions of buildings.**

This means looking at both operational and embodied emissions in an integrated manner and **policymakers must carefully consider the right combination of policies and supporting roadmaps to ensure that reductions in embodied and operational emissions from buildings are making an optimal contribution to delivering a net zero emissions Europe.**



## 2. Circular economy

Europe's transition to a circular economy will help address key societal challenges including population growth, urbanisation and resource scarcity. As one of the most resource consuming sectors in Europe, the building and construction sector must be at the heart of this transition.

This requires systemic change, and **the European Commission must take a leadership position so that member states are fully equipped with the right guidance and tools to fully embrace the transition.** A building and construction sector that optimises the use of resources and results in zero waste to landfill is the level of ambition the sector must achieve.

This can only be achieved by the creation of circular value chains which keep materials and resources in use for as long as possible, and which facilitate the use of secondary materials from construction and demolition waste. **This requires policy and regulatory support for circular principles that:**

- Encourage optimisation of resources and materials
- Support the reuse of existing assets and recovery of materials
- Support longevity through design for modularity and flexibility
- Support rigorous waste segmentation and treatment, and design for deconstruction
- Embed the use of lifecycle assessment and lifecycle costing in the sector

Green public procurement should be leveraged as it has a pivotal role to play in preparing markets for such circular principles. Not least, as climate change and resource use are closely linked, the deployment of circularity in the construction sector should also be accelerated for its carbon emissions reduction potential.

The European Commission's Level(s) framework is the key tool that enables the sector to achieve these collective aims. **However, European leaders and policymakers must give Level(s) greater political support and resources to realise its potential to drive circularity in the built environment sector.**



## 3. Health and wellbeing

In order for a building to be truly sustainable, it must also be a healthy building for those inside it. There is a compelling body of evidence that good indoor air quality, visual comfort, daylighting, acoustics and enhanced levels of thermal comfort lead to decreased asthma rates, better cognitive performance and sleep quality, increased productivity and many other benefits.

Sustainable buildings are part of the solution – by designing and constructing our buildings in a way that enhances these benefits we can create a built environment that brings wellbeing and prosperity to people.

In Europe some 100,000 deaths a year are attributed to exposure to pollutants found within households. **European policymakers must address the impact of buildings and construction on indoor environmental quality by adopting policies that:**

- Improve ventilation systems and encourage the use of healthy materials that reduce exposure to harmful Volatile Organic Compounds
- Limit exposure to biological contaminants such as damp/mould when constructing new buildings and, importantly, when renovating buildings
- Promote measurements systems to monitor indoor air quality so as to empower occupants with knowledge about the quality of the air they breathe
- Encourage a transition away from the use of fossil fuel based heating systems

**The European Commission must also encourage the member states to design national long-term renovation strategies that cover indoor environmental quality as well as thermal comfort, visual comfort and acoustic conditions.**

It is not just building policymakers who must consider the health impact of buildings – it must also be considered by those working on a range of different policy areas including health and circular economy – so that the mitigation potential of the built environment sector to enhance health and wellbeing is truly considered.



## 4. Water use

Only 3% of Earth's water is fresh water and the built environment sector has a key role to play in protecting this precious resource as it becomes increasingly scarce. The majority of Europe's public water supply is used in buildings, accounting for around 21% of total abstracted water. Typically, most of a building's water circulates through the building and then flows off-site as wastewater, meaning only 7% of water is reused.

Water scarcity affects at least 11% of Europe's population and this will become more widespread and severe in the future. This scarcity, wasteful use of water and growing water demand together call for more sustainable use of water resources.

The Level(s) framework identifies water as a priority area and contains an indicator that addresses use stage water consumption in a way that contextualises the importance of water efficiency considering seasonal water stress, hence addressing water scarcity.

**European policymakers must support the implementation of this indicator and provide further support for strong regulatory measures and incentives that drive water efficiency and reduce wastage.** Such measures include installation of water meters, and greywater and rainwater recovery systems.

<sup>1</sup> This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 840926 - BUILD UPON2 - H2020 - LC-SC3-EE-16-2018



## 5. Value and cost

Sustainable buildings are cost effective and help to create and maintain value. However, the right financial and investment framework must be in place to realise and unlock this value.

**The European Commission must support financing mechanisms which consider not just investment costs but the whole lifecycle cost (LCC)** as improving environmental performance and lowering running costs may require higher initial capital costs to ensure a net saving to European taxpayers.

The value of a building is also strongly linked to many aspects such as quality, adaptability, resilience, location and availability of sustainable transport options. **In addition to LCC, property valuation and risk rating should fully capture these benefits to support long-term investment decisions. Their inclusion in policies and frameworks such as Level(s) should be considered.**

As the transition to the circular economy continues, access to finance for circular solutions must be improved as these solutions often struggle to meet traditional risk and investment criteria.

**The European Commission must consider Level(s) as a frame of reference during the development of the buildings criteria within the EU-wide classification system or 'taxonomy' for sustainable economic activity.** The taxonomy must support a lifecycle approach to buildings and the supporting metrics and thresholds must be flexible and reviewed and updated at regular intervals.



## 6. Resilience

Projected changes in the climate may lead to unliveable conditions in parts of Europe, but this can be avoided by supporting a built environment that future-proofs against such changes in the climate. For new buildings, climate resilience can be achieved by taking into account the current and future climate when locating, designing and operating a building. Existing buildings can achieve climate resilience by renovating and/or ensuring that maintenance regimes incorporate resilience to the impacts of climate change over the building's lifetime.

It is therefore crucial that **European leaders support policies that mitigate these impacts, and further support should be given to facilitate the implementation of the resilience indicators within the Level(s) framework.**

Mitigating the impact of flooding is key to achieving a resilient built environment, and **European policymakers must support mitigation measures such as green roofs and sustainable drainage systems.**



## 7. Biodiversity

Biodiversity and the natural environment are central to human wellbeing, providing food, removing pollutants from the air, filtering water from the ground, providing natural cooling and space for recreation. But changes to our built environment can disrupt this delicate balance and the sector must recognise its role in preserving and restoring our natural environment – the protection of our planet and humankind depends on it.

**European leaders must support policies that ensure that the construction and renovation of buildings is done in a way that does no harm to, and actually enhances, our natural environment. Any further updates to the EU's Biodiversity Strategy should address the loss of biodiversity caused by the built environment and the potential benefits of renaturing our urban environment.**

There is a strong overlap and link between biodiversity and resilience, and it is possible to improve biodiversity, enhance resilience and improve liveability by supporting blue and green infrastructure in the built environment. **The European Commission should also consider how to further integrate and strengthen the role of the built environment in its Green Infrastructure Strategy.**



## 8. Just transition

The transition to a low carbon, circular economy will have far reaching social and economic impacts. It should eliminate energy poverty, ensuring adequate warmth, cooling, lighting and the energy to power appliances for guaranteeing health and a decent standard of living for all. Although it is clear that these impacts will be overwhelmingly positive, the sector must consider steps and act to mitigate the risk of negative transition impacts such as job losses, and support those who may be most vulnerable to them.

A sustainable built environment will require new skills, trades and professions and can stimulate significant investment in local economies. **The implementation of energy efficiency directives and renovation strategies should include measures to help retrain those currently working in high carbon intensity industries to enable them to benefit from these new opportunities.**

Ensuring a sustainable future for Europe requires investment, which is often channelled where there is a market interest, potentially increasing the gap between city centres and suburbs. Transformation of the built environment must be supported by policies that favour an even or just distribution of benefits among all Europe's citizens.



# Let's realise the potential together

By supporting, establishing and implementing strong policies across these priority areas, European leaders have an unparalleled opportunity to realise the transformative potential a sustainable built environment has to deliver a net zero emissions Europe.



The WorldGBC Europe Regional Network is already at the heart of this transformation and is working with national governments, regions, cities, actors across industry and civil society in our programmes on Level(s), Advancing Net Zero and national renovation strategies to strengthen the effectiveness and implementation of our sustainable built environment vision.

The WorldGBC Europe Regional Network strongly believes that Level(s) is the key tool that will truly bring buildings into the circular economy and drive demand for a built environment that benefits the economy, society and the environment. Level(s) focuses attention on six of the eight priority areas listed in this document and its implementation will set comparable requirements for sustainable building, facilitate the collection of data to enable benchmarking, and eventually enable performance standards in legislation.

However, Level(s) is currently a voluntary framework and it requires far greater resources and political support for successful pan-European implementation. The WorldGBC Europe Regional Network is currently working to define a roadmap that will outline the actions needed to integrate this voluntary framework into a set of EU policies or a regulatory framework that puts a sustainable built environment at the heart of Europe's future.

Transitioning to a net zero emissions circular economy is challenging but achievable, and WorldGBC Europe Regional Network's community of stakeholders and partners stands ready to assist the European Commission so that the sector can realise its full potential for delivering our vision of a climate neutral Europe.

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