

IGBC's Submission to Ireland's Climate Action Plan - 2024

About Us

The Irish Green Building Council (IGBC) welcome the publication of the Climate Action Plan 2024 and its Annex of Actions.

The Irish Green Building Council (IGBC) is a registered charity with over [400 corporate members](#) drawn from all parts of the value chain, from occupiers, design professionals, contractors, suppliers, academics and public authorities. The IGBC provides leadership for a sustainable built environment and is affiliated with a global network of 70 national councils within the World Green Building Council. This allows us to create workable solutions and tools to deliver transformative change towards a sustainable built environment.

Our submission primarily focuses on climate mitigation and adaptation actions that relate to the built environment. It is informed by the extensive stakeholder engagement processes conducted by the IGBC over the last two years on energy renovation, sustainability skills in the construction industry, circularity in construction, and addressing whole-life carbon emissions in the built environment.

A list of useful resources and further details on these stakeholder engagement processes are provided in Appendix 1.

Overall view

The Irish Green Building Council (IGBC) welcome the publication of the Climate Action Plan 2024 and its Annex of Actions. Significant progress has been made in recent years, and it's encouraging that funding for energy renovation is increasing again, and that there is greater awareness of the links between planning and carbon emissions and of the need to tackle the global warming potential of buildings across their life cycle.

However, as highlighted by the EPA and the Climate Change Advisory Council progress remains too slow. More specifically, more holistic and coordinated actions are needed to address all the emissions associated with the built environment, from operational to embodied and transport-related emissions. In particular, more joined-up thinking is required to deliver on the National Development Plan without compromising Ireland's climate targets. In relation to Ireland's National Renovation strategy, programmes and policies need to be better targeted to provide more additionality. Finally, when it comes to addressing whole life carbon emissions in the built environment, Ireland needs to move faster. A significant amount of work has already been done on this topic (e.g., development and testing of a robust national methodology) and with 500,000 homes to be built in the next decades, as well as large infrastructure, Ireland cannot wait till 2030 to introduce limit values. Further details on these very specific points are provided in the following sections.

On a separate note, despite the publication of quarterly progress reports, transparency on progress and actions could be improved. For instance, it would be useful to find information on the work of the Climate Delivery Taskforces (including membership) in a single place. Likewise, it is still challenging to track progress against some actions. E.g., The Climate Action Plan 2023 mentioned "conducting a review of GHG emissions on a consumption basis" (PD/23/1). The action was also mentioned in the Climate Action Plan 2021, but as of February 2024, we were not able to find any updates on this action.

Research and Innovation

A number of actions presented under this section are highly welcomed. I.e., the establishment of a new Climate Science and Policy Analysis Unit within the EPA's Climate Change Programme (RE/24/2), as well as the commitment to increase investment in research to support agricultural and land use diversification (RE/24/6).

Our work on energy poverty¹ and green finance² have highlighted the need to increase research in behavioural science and climate finance. Further information could be included on research on improving monitoring and evaluation of policies in the post-implementation stage, in particular in relation to energy renovation programmes³. While the inclusion of RE/24/6 is highly welcomed, it would be useful to provide further information on what exactly will be covered under this heading. As embodied carbon emissions in the built environment are gradually being regulated in Europe and beyond, Ireland with Ireland with a large agricultural sector has a strategic interest to identify, encourage, and develop local low carbon biobased solutions from agriculture and forestry. This could start with a feasibility studies such as one developed in 2022 by DAFM for wool production, extending to other potential construction materials such as CLT, industrial hemp, straw and other agricultural fibres, as well as exploring potential of newer bio-based materials such as mycelium.

Other research areas that should be considered include:

- Research on the Whole Life Carbon impact of deep and shallow retrofits on different building typologies in an Irish context. This should then inform research into opportunities to standardise retrofit of Ireland's existing building stock, including the potential for off-site manufacturing of certain elements, the potential to standardise heat pumps, and the potential to use economy of scale to make retrofit cheaper.
- Research suitability, affordability and efficiency of heat pumps, district heating and solar PVs for different building typologies in Ireland, taking a WLC approach. This would support the development of guidance on when heat pumps are most appropriate.
- LCA of traditional vs off-site manufacturing in the built environment in an Irish context to create baseline database.
- Fund pilot projects showcasing alternatives to current methods of construction/retrofit and their benefits (e.g., through the Construction Technology Centre).

Choosing the Pathways

It's positive that a Carbon Capture and Removals Working Group is being set up (PW/24/4). This work should be completed in close cooperation with industry to identify feasible options and support its development to deal with hard-to-abate emissions for which there are no alternative mitigation options. However, as this technology is immature and unlikely to become widely available before 2040's, there is a risk if the government relies too much on it to reach any of the targets. For instance, when it comes to the production of cement, the below should be considered:

The production of cement involves the chemical release of CO₂ which is not related to the fuels or energy used in the industrial process. For example, when converting limestone to cement clinker, CO₂ is released in the chemical process. Calcium Carbonate (CaCO₃) converts to Calcium Oxide releasing Carbon dioxide (CO₂). Substitution with zero carbon fuels can only reduce up to 40% of these emissions. Consequently, government should work with industry to support innovation in this sector (clinker replacement) and alternative renewables like geothermal and wastewater heat recovery, in addition to the development of Carbon Capture Storage solution.

Governance

The establishment of Climate Delivery Taskforces and similar structures to facilitate the delivery of challenging cross-cutting and cross-departmental climate action, as well as the publication of quarterly progress reports are

¹ In March 2024, the IGBC launched the [Bridging the Gap Between Energy Poverty and Energy Renovation report](#). The report makes a series of policy recommendations to the Government on how to better address energy poverty in Ireland through ambitious and targeted energy renovation programmes.

² The IGBC is part of the Green Finance Programs for Sustainable Homes – SMARTER4EU project which aims at supporting the development of green finance, as well as third-party green, sustainable homes certification aligned to the EU taxonomy as a qualifying mechanism for green finance products. [More information is available here](#).

³ See the [Build Upon² Energy Renovation Framework](#) which was developed by the IGBC, in close cooperation with 5 Irish local authorities to track and monitor holistically the impact of energy renovation at municipal level and to better link local and national initiatives. Also, the [IIEA's report Reviewing the Co-Benefits of Energy Efficiency in an Irish Context](#) (2023).

highly welcomed. However, the IGBC believes that the following actions should be considered to improve governance:

- Increase transparency on the work of the Climate Delivery Taskforces (including membership): It is sometimes difficult to know which departments/units are part of which task groups/working groups, and to track progress.
- Further engagement with industry, NGOs, etc. should be considered by these task forces and working groups. E.g., Stakeholders involved in our work on energy poverty indicated that while annual plenary sessions with key stakeholders organised by the Cross-Departmental and inter-agency Energy Poverty Steering Group are positive developments, more regular engagements with the renovation industry and organisations dealing with vulnerable households are needed – See [Recommendation 2 of the Final Report](#).
- Develop and publish a more detailed annual tracking report covering all actions included in the Climate Action Plans, as well as explanations if Government is behind schedule on some actions, etc. Rationale: It is still challenging to track progress against some actions. E.g., The Climate Action Plan 2023 mentioned "conducting a review of GHG emissions on a consumption basis" (PD/23/1). The action was also mentioned in the Climate Action Plan 2021, but as of February 2024, we were not able to find any updates on this action.

Ensuring a Just Transition to a Climate Neutral Ireland

Our comments relate to the cost of climate action being shared equitably in society (equitable impacts), and people being equipped with the right skills to be able to participate in and benefit from the future net zero economy (the right skills).

Equitable impacts:

In relation to the National Energy Renovation programme, the criteria of the SEAI Free Energy Upgrade Programme should be reviewed on a regular basis to ensure it provides additionality and that the most vulnerable groups in society have access to it. Currently, certain groups at risk of energy poverty such as those in the private rental market are not covered in the free energy upgrade scheme. Government should consider opening the scheme to tenants receiving HAP, on the condition of a long-term lease being offered. Households could also be further prioritised (e.g., based on income/P60 form) as part of the free upgrade scheme. New schemes to better support households falling just above the free energy upgrade threshold should also be piloted and introduced. Other actions to further support the most vulnerable households in their renovation journey should also be considered – in particular to make energy renovation more accessible. Please see our [Bridging the Gap between Energy Poverty and Energy Renovation Report \(March 24\)](#) for further details. This is fully aligned with the proposed revision of the Energy Performance of Buildings Directive (EPBD) which states: “financial incentives and other policy measures should as a priority target vulnerable households, people affected by energy poverty and people living in social housing”.

The right skills:

The IGBC welcomes the plan’s focus on developing the green skills and capacities required for a net-zero economy through Education and Training Boards (JT/24/1) and Springboard+ and HCI Pillar 1 (JT/24/2). The roll-out of the NZEB Fundamentals training course across the country, and the introduction of mobile training are extremely positive developments. However, given the low uptake of energy renovation training courses and the need to deliver high-quality energy renovation at scale, actions to further incentivise upskilling should be considered. This could be initially incentivised through mechanisms such as green public procurement and relevant public grant criteria, and then mandated through a “sustainability pass” - based on the “safe pass” model or something similar. Actions are also required to attract more people (and more diversity) to energy renovation and sustainable construction. The Careers in Construction: Action Plan is a positive initiative, but it needs to focus more on the importance of sustainable construction and energy renovation. Furthermore, additional training courses are needed to address identified skills gaps such as circular economy, lifecycle analysis, digitisation, and digitalisation for built environment. Please see the [Build Up Skills Ireland 2030 ROADMAP for further information on these actions](#)⁴.

⁴ Launched in March 2024, the roadmap was developed by IGBC, CIF, LOETB and TUS through extensive stakeholders’ engagement.

Delivering a Just Transition in the Midlands Region

The inclusion of JM/24/3 (Support piloting, demonstration, and innovation for a sustainable and circular bioeconomy) is welcomed. Given regulatory changes at EU level (E.g., revision of the EPBD) and with countries introducing stricter requirements on sustainable construction, it would be worth exploring options for the production of biobased construction materials in Ireland (and not only wood). This could start with a feasibility study such as one developed in 2022 by DAFM for wool production, extending to other potential construction materials such as CLT, industrial hemp, straw and other agricultural fibres, as well as exploring potential of newer biobased materials such as mycelium. These industries will only likely gain traction with significant state involvement through investment and engagement with the agriculture sector.

Citizen Engagement

This section is comprehensive and welcomed, especially the parts about awareness raising and the need for more social and behavioural research.

The document stresses that insights suggest that the public are concerned about climate change, yet they are very unsure about what climate action means for Government, what Government is doing about it, and what is expected of them and everyone else. It also highlights that the public is asking for clear consistent communications, “joined up thinking” and “ambitious policies” to be reflected “where they live”. Furthermore, it stresses that delivering on our climate ambition requires that the Government and the people of Ireland come together in a strengthened social contract for climate action and the co-creation of real solutions to these challenges.

One important way to address these challenges in the built environment is to better highlight the links between buildings, transport, and industry emissions: Emissions associated with the built environment do not only relate to the energy we use to heat, cool, and power them. Where we build them impacts our transport emissions. How we build/renovate them impacts our industrial emissions from the production of construction materials. Achieving real progress in this field will most likely require further discussion on housing and climate action, to build a consensus around more contentious policies on how to meet housing needs of an expanding population without increasing carbon emissions. Setting up a Citizens’ Assembly on housing and climate action, to raise awareness about these issues and build a consensus around more contentious policies to address them such as optimisation⁵ and re-use⁶ might be a way to address this.

In relation to the new programme of social and behavioural research (CZ/24/4), please see our [Bridging the Gap between Energy Poverty and Energy Renovation Report \(March 24\)](#) on research that may be needed to make energy renovation more accessible to vulnerable households.

Public Sector Leading by Example

The focus on energy renovation, circular economy, green public procurement (GPP - PS/24/7) and skills development (PS/24/7) is welcome, but more should be done to ensure the public sector truly lead by example. In a climate and biodiversity emergency, no government’s policies, legislation or programmes should negatively impact Ireland’s climate goals. More specifically,

- All government expenditure and fiscal policies must be fully aligned with Ireland’s 2030 and 2050 Climate targets.
- Where government invests in buildings, including housing through grant aid or procurement from private sector, it should ensure that these developments adhere to higher sustainability requirements,

⁵ See ESRI’s recent report: [More than two-thirds of people are living in homes too big for their needs, ESRI research finds – The Irish Times](#)

⁶ E.g., The embodied carbon emissions of a deep retrofit is about a quarter of a new built (Kinnane, 2022). Infill developments also have positive impact on embodied carbon emissions associated with infrastructure – See: [Viable Homes - Guidelines for planners on the design and building of low carbon, low rise, medium density housing in Ireland - V1.0 \(igbc.ie\)](#).

including a wider range of objectives such as addressing whole-life carbon emissions and reducing transport requirements, climate adaptation and biodiversity. This could be achieved through green building certifications such as the [Home Performance Index](#) or at minimum EU taxonomy compliance.

- The use of Green Public Procurement (GPP) criteria must become the norm, i.e., the use of GPP must be mandated for all public notices published for procuring buildings and renovations⁷. This would not only support the public sector transition towards a sustainable built environment, but it would also contribute to scaling the markets for low-carbon and circular materials.

The roll-out of centralised climate-related training and upskilling for all Civil Service grades (PS/24/7) is welcomed but the following gaps have been identified as part of the BUSI2030 project: WLC assessment for public procurers, carbon literacy, low carbon construction and renovation, as well as policy tools and procurement of low carbon products, and circular use of buildings and materials. Please see BUSI Roadmap for further information: [BUSI2030 ROADMAP-FINAL 240327.pdf \(igbc.ie\)](#).

Carbon Pricing and Cross-Cutting Policies

The publication of Green Budgeting Analysis on tax and tax expenditure (CP/24/2) and expenditure allocations (CP/24/3) is welcome, but in a climate emergency, this needs to go further. I.e., as highlighted under the “leading by example section”, actions should be taken to ensure all government expenditure and fiscal policies are fully aligned with Ireland’s 2030 and 2050 Climate targets.

It is also positive that climate action is one of the key drivers for consideration as part of the revision of the NPF. The [carbon modelling report](#) we commissioned from a group of researchers in UCD shows that the embodied carbon from the greatly expanded construction programme in the National Development Plan (NDP) will likely blow our carbon budget without action. Consequently, the embodied carbon of projects in the NDP need to be measured, and these need to be prioritised to meet our social and economic needs without blowing our carbon budget. The initial findings of the Construct Innovate funded Viable Homes project should also be useful in informing the revision of the NPF: [Viable Homes - Guidelines for planners on the design and building of low carbon, low rise, medium density housing in Ireland - V1.0 \(igbc.ie\)](#). The revision of the NPF should also be seized as an opportunity to ensure it better supports necessary actions needed to make our coastal towns and cities more resilient.

Other actions worth exploring include:

- Reviewing existing retrofit grants and tax incentives to ensure they are fully aligned with overall carbon reduction goals, including regeneration objectives. This would involve taking into account operational emissions, embodied carbon and location-based indicators that impact transport emissions.
- Replacing the property tax by a site value tax charged on the value of the land to disincentivise under use of properties and sites.
- Ensuring that all public grants and tax incentives are fully aligned with the EU Taxonomy.

Industry

The IGBC welcomes the strong focus on addressing embodied carbon emissions in the construction industry now included in this section.

More specifically, it is encouraging that the latest Climate Action Plan acknowledges that optimised design and modern methods of construction (MMC) have the potential to reduce the quantities of concrete used in construction, as well as embodied carbon emissions. While it is positive that resources have been allocated to the development of a national methodology to measure (and eventually limit) whole life carbon emissions in the built environment, this should be accelerated - see section on the built environment. New homes and infrastructure to be built in Ireland over the next decade will lead to significant embodied carbon emissions

⁷ The [Implementation of Circularity, WLC and LCC in Public Construction Projects Handbook](#) developed by the IGBC with support from the EPA may be useful. The IGBC is also supporting the pilot and testing of a highly successful tool for GPP - the [CO2 Performance Ladder](#), which has already been piloted by TII (more pilots to come in 2024).

which cannot be retrofitted and to Ireland blowing up its carbon budget if these are not addressed. Please see the section on the Built Environment below on how this process can and should be accelerated.

The plan could be more specific on actions to promote and support the production and use of alternative construction materials. Ireland with a large agricultural sector has a strategic interest to identify, encourage, and develop local low carbon biobased solutions from agriculture and forestry. It is positive that a working group on the use of timber in construction was set up, but Government must now ensure it delivers results within the next 12 months, in particular in relations to regulatory barriers. More specifically, TGD B needs to be reviewed to reflect international research and developments in mass timber construction. Actions are also required to create new value chains and infrastructure for other biobased materials. E.g., through the provision of financial incentives or direct funding for research and production facilities for biobased construction materials, such as CLT, sheep's wool and hemp. Strategic government investment in production or risk sharing aiming to create large export orientated industries (building on success of industries such as Coillte's MediteSmartply) should be explored. This could start with feasibility studies such as one developed in 2022 by DAFM for wool production, extending to other potential construction materials such as CLT, industrial hemp, straw and other agricultural fibres, as well as exploring the potential of newer bio-based materials such as mycelium. These industries will only likely gain traction with significant state involvement through investment and engagement with the agriculture sector. This also requires reviewing the definition of "proper materials" (TGD D), to make it easier and faster for new innovative, low embodied carbon materials, to be placed on the Irish market without lowering standards.

As highlighted in the document the key component of cement, which is produced in a carbon intensive process, is the clinker. Substitution with zero carbon fuels can only reduce up to 40% of these emissions. While the document mentions that Government will work with industry to support innovation in this sector (clinker reduction and replacement), it would be good to include a specific action associated with this objective. It mentions that Enterprise Ireland will support companies undertaking high-risk research and development in relation to novel cementitious materials; innovative products; and more efficient production technologies, but the action is not really specific (e.g., budget). While CCSS is part of the solution, government should also work with industry to support innovation in this sector and alternative renewables like geothermal and waste water heat recovery. Consequently, action IN/24/3 should be complemented with actions around this line.

While the use of GPP to support this transition is highly welcome, this should not be limited to specification of lower carbon cements in public procurement. Through GPP, the state has the power to contribute directly to scaling the markets for biobased and circular materials. To have a real impact, the use of GPP should hence be mandated for all public notices published for procuring buildings and renovations – including social housing, and more specifically, the Level(s) indicators 1.2 - WLC, 2.3 – Design for adaptability and renovation, 2.4 - Design for deconstruction, reuse and recycling and 6.1 - Life Cycle Costing. Developing exemplar projects and normalising GPP would help in building capacity within the industry, including the development of a biobased construction industry in Ireland.

Built Environment

While the level of funding for energy renovation has increased significantly in recent years, leading to a significant increase in delivery, this section includes actions that should be taken to address embodied carbon emissions in construction, further support and incentivise upskilling, as well as to further support and accelerate energy renovation of commercial and residential buildings.

Embodied carbon emissions

It is positive that the latest Climate Action Plan acknowledges that the decarbonisation of the built environment will require us to decrease the emissions associated with production, construction and demolition (14.3.2). However, Ireland should not wait for changes to happen at European level to act in this field. Given that, [scientific projections](#) show that current policies and legislation will not be sufficient to deliver a science-based cut of 51% of carbon emissions in our sector by 2030, and all the groundwork that has already been completed by SEAI and the IGBC – See [INDICATE project](#), small steps that have been taken to address the whole life carbon impact of construction and the built environment must be urgently accelerated.

More specifically, to drive change in industry, Government should commit to introducing the first carbon targets for different building types as soon as possible, and at the latest by 1st January 2027 – as opposed to waiting till 2030 as per the EPBD. Similar legislations are already in place in other European countries – E.g., Denmark and France. This action is also supported by the industry (see [list of organisations who have endorsed the Building Life roadmap](#)).

Making sure we have the right skills – Supply Chain, Skills and Standards

The IGBC welcome that a number of actions relate specifically to skills and upskilling.

On apprenticeships, the IGBC fully support actions listed under BE/24/8 but believe that further actions are needed to promote greater uptake of apprenticeships – Please see [BUSI2030 ROADMAP](#) for further details.

The IGBC fully supports the objectives of increasing learner activities in NZEB centre (BE/24/9), as well as engagement with the NZEB mobile unit (BE/24/10), but based on the work completed as part of BUSI2030, it's likely that this will require actions to further incentivise upskilling. Upskilling could initially be incentivised through mechanisms such as green public procurement and relevant public grant criteria, and then mandated through a “sustainability pass” - based on the “safe pass” model or something similar.

Residential

The IGBC welcome the actions presented under this section to scale up energy renovation in the residential sector. In particular, the increase in technical (BE/24/3) and financial support (BE/24/2 and BE/24/6) for householders, as well as the progress to be made on district heating and geothermal.

Based on the work completed as part of the development of an [energy renovation framework – Build Upon](#) and of the [guidance document on energy renovation of traditionally built buildings](#), as well as on our [roadmap to decarbonise Ireland built environment across its whole life cycle](#) and [energy poverty](#), we believe that the following actions should (at least) be explored:

- Review financial support for energy efficiency on a regular basis to ensure it provides additionality and supports equal access for vulnerable communities. This would contribute to better channelling of funding towards low-income households who cannot afford energy renovation work. Currently, certain groups at risk of energy poverty such as those in the private rental market are not covered in the free energy upgrade scheme. Government should consider opening the scheme to tenants receiving HAP, on the condition of a long-term lease being offered. The Government should explore the “Ma Prime Renov” scheme in France whereby a landlord needs to commit to renting out the property to the eligible tenant for at least 5 years post-retrofit. In the Irish context, the term could be scaled depending on the level of renovation.
- Pilot and introduce new schemes to better support households falling just above the free energy upgrade threshold. Many energy-poor households cannot avail of the free energy upgrade scheme as they fall just above the eligibility criteria. In addition to free renovation passports for single measures, actions such as the introduction of a sliding scale on the rate of grants based on income as part of a Warmer Homes Plus scheme, or an equity release scheme for asset rich/cash poor households to allow them afford the renovation costs should be considered.
- Encourage a more targeted area-based approach to deliver more with less resources, build capacity in industry and better support climate equity.
- Allocate funding for a well-resourced network of independent energy renovation advisors in each local authority. This service would support households throughout the renovation journey providing both financial and technical advice.
- Develop a quality assurance scheme for one-stop-shops to ensure independent advice and customer protection are provided, hence supporting high quality retrofit works.
- Mandate and fully fund the development of Renovation Passports for shallow energy renovation works receiving public funding. E.g., repair and maintenance scheme in social housing and the SEAI's Individual Energy Upgrade Grant Scheme.

- Ensure that the low interest energy renovation loans to be introduced are below 2% as per international best practice.
- Traditionally built homes account for 17% of our housing stock, introducing better support for renovating these homes is urgent. This could be through the introduction of a OSS specialising in retrofitting these properties, and by addressing specific challenges around TGD Part D and agreement certificates to ensure funding is available to retrofit these properties through existing SEAI grant schemes.

Commercial and Public Sector

The IGBC welcome the introduction of SEAI non-Domestic Retrofit Scheme (BE/24/19) and the development of a voluntary code of conduct for commercial tenancy or lease agreements that promotes reduced carbon emissions from commercial businesses. However, based on the work completed to date as part of the SEAI funded [ENACT](#) and [BUNRS](#) projects, the Government may want to go further and consider updating the landlord and tenant (amendment) act 1980 to incorporate green clauses as a basic provision. A green lease is a standard commercial lease with additional clauses included which provide for the management and improvement of the Environmental Performance of a building by both owner and occupier(s). Green leases are now relatively common in the UK, the US, and Australia. Research shows that green leases contribute to greater environmental awareness. They also facilitate useful conversations about cooperation between tenant and landlord on environmental matters. Although green leases are applicable in concept to any rented property, large or small, their diffusion across the market, where non-mandatory, is uneven. The organisations adopting green leases in the UK and the US are mainly the same type that are likely to participate in other forms of voluntary environmental programmes, i.e., large organisations with sustainable goals. Making it mandatory as done for some commercial buildings in France and government’s buildings in Australia would contribute to greater energy use awareness and impact. The IGBC would be happy to share the findings of the [ENACT](#) project later on this year on actions that could be taken to further incentivise and facilitate energy renovation in the SME sector.

In relation to energy renovation of public buildings, and given that the public sector must lead by example – see previous comments on this topic, the SEAI Pathfinder Programme and local authorities’ energy renovation programmes should be used to further support innovation. E.g., aiming for low embodied carbon energy renovation or greater POE to improve Ireland’s overall national retrofit programme. Likewise, the findings of the programme for the retrofit of traditional and historic buildings conducted by the OPW should be used to inform the development of grants for energy renovation of traditionally built domestic buildings.

Transport

Transport is Ireland second highest and fastest source of carbon emissions. With 500,000 homes to be delivered in the next decade, ensuring all new homes (and not only the ones delivered by the LDA – TR/24/8) are delivered in walkable areas with good access to public transport and car-sharing schemes must be an absolute priority. All new developments must be designed to enable low carbon lifestyle. This is critical to reduce our emissions, protect biodiversity and could improve our health and wellbeing.

Increasing density would facilitate a more effective use of both existing and any new transport infrastructure and contribute to a reduction in transport emissions. The revision of the National Planning Framework must be used to ensure that all new developments are walkable and designed to prevent car dependency. A policy of allowing 60% of new developments to be built outside towns and built-up areas or allowing ultra-low density of 35 homes to the hectare and often much less will never deliver reduction in transport emissions. The current approach is leading to carbon leakage of low density, highly carbon intensive developments (due to transport emissions and typologies of housing – large detached and semi-detached homes, and associated infrastructure⁸). These are more attractive to build for developers, and while allowed in some local authorities around our cities, leads to further sprawl. I.e., if low density development under 50/ha is allowed in one jurisdiction, it makes it

⁸ On this point, please see this handbook developed with support from Construct Innovate which highlight to planners and other key stakeholders the whole life cycle impacts of constructing new dwellings on greenfield sites and to provide recommendations to mitigate this impact: igbc.ie/wp-content/uploads/2024/02/Viable-homes_guidance_v1.0_24-01-30.pdf.

more difficult for neighbouring local authorities to apply higher standards. Furthermore, maximum car parking limits should apply across all local authorities (urban and rural) to ensure all new developments are walkable and enable a low carbon lifestyle. Car orientated development with dedicated car spaces per unit directly connected to the unit should not be permitted - except in exceptional circumstances, such as disabled spaces.

The priority should be to take more space away from cars to provide space for high quality public transport, active travel, and green infrastructures. This is important for climate mitigation and adaptation, and would improve people's health and wellbeing, also making our urban areas more attractive places to live in.

Agriculture

The IGBC welcomes the focus on the bioeconomy and on the beneficial role of diversification opportunities for farmers. However, and as highlighted in previous sections, when it comes to the opportunities in the construction industry, the plan should look at more than timber and afforestation.

The development of a bio economy is dependent on supporting farmers and foresters to grow a greater range of crops that can be used for construction materials. To date the emphasis has been on growth of biomass for fuel. Projects such as the H2020 Agri4valor have highlighted the potential for agriculture-based construction products. There is currently almost no production of bio-based materials for construction apart from OSB boards and MDF. There is a wide range of materials that can be developed in the construction sector, including CLT, sheep's wool, hemp, mycelium, and straw. This could be done through strategic government investment in production or risk sharing aiming to create large export orientated industries building on success of industries such as Coillte's MediteSmartply. This could start with a feasibility study such as one developed in 2022 by DAFM for wool production, extending to other potential construction materials such as CLT, industrial hemp, straw and other agricultural fibres, as well as exploring potential of newer biobased materials such as mycelium. These industries will only likely gain traction with significant state involvement through investment and engagement with the agriculture sector. Actions to support awareness raising and upskilling would also be required.

As a growing number of countries regulate embodied carbon this would support Ireland's competitiveness, and support diversification of the agriculture sector, making it more sustainable.

Ireland has the perfect climate to grow materials such as timber and hemp for the construction industry. Developing these industries present a perfect opportunity to diversify agriculture, reduce agriculture and industry emissions, while creating jobs across the country. However, a number of actions are needed to remove barriers (e.g., licensing, lack of processing facilities and fire testing) and support the development of the industry – see above. These policies cannot focus exclusively on timber, as Ireland is not Sweden and does not already have large forest cover. Hemp production would be worth exploring as it offers potential for rapid sequestration of carbon into construction materials, offering an alternative to timber for farmers who don't want to lock up land use for extensive period with forestry. However, a much more diverse approach is probably required as it was done in Holland and Denmark in response to the Nitrogen Directive.

Land Use, Land Use Change, and Forestry

This section includes a number of positive actions, including on timber in construction and hedgerows.

On timber in construction, the work of the new Industry and Interdepartmental Timber in Construction Steering Group (LU/24/2) needs to be accelerated to address barriers to a greater use of timber in construction. More specifically, regulatory barriers should be addressed as a priority. Other opportunities for biobased materials in construction (e.g., hemp and wool) should also be further considered – see previous section.

On hedgerows, in addition to planting new hedgerows (which is needed), Section 40(1)(a) of the Wildlife Act 1976 as amended by the Wildlife (Amendment) Act 2000 and the Heritage Act 2018 should be reviewed. While under the act, it is an offence to destroy vegetation on uncultivated land between the 1st of March and the 31st of August each year, this section provides an exception to the rule for "clearance of vegetation during road or other construction works or in the development or preparation of sites on which any building or other structure is intended to be provided".

Further actions should also be considered to restrict urban soil sealing (such as conversion of gardens to patios and driveways) to avoid storm runoff into sewage treatment plants and to prevent localised flooding.

Local Government

A number of actions listed under this section are extremely positive. E.g., the adoption of Local Authority Climate Action Plans (LG/24/1), the development of Decarbonising Zones (LG/24/2) as well as the allocation of further funding to recruit climate action and biodiversity officers, etc. (p. 388), and the roll-out of additional training for local authorities' employees.

However, policies developed and implemented at local authority level are often not holistic enough to address all the emissions associated with the built environment – operational, embodied and transport, and consistency in planning policies across local authorities remain an issue. Lack of resources at local authority level (including lack of control over their funding) also makes it difficult for them to be ambitious and to lead by example (e.g., on circularity).

Although the introduction of decarbonising zones in local authorities is an important step forward, it is disappointing that they are not used yet to fully support innovation and capacity building. To date, most of them only focus on operational and transport related emissions and do so in a very siloed way. The lack of resources allocated to their implementation is also a source of concern.

The roll-out of climate training and capacity building for local authority staff and elected members to ensure greater climate awareness and expertise is positive, but these need to be well targeted and cover topics such as the global warming potential of buildings across their whole life cycle, and low carbon construction and renovation. See the BUSI 2030 Roadmap for further information on this topic: [BUSI2030_ROADMAP-FINAL_240327.pdf \(igbc.ie\)](#).

The development of a monitoring and reporting system for the Local Authority Climate Action Plans (LG/24/3) is positive and could help in further engaging citizens with climate action. The use of the Build Upon Energy Renovation Framework – which was developed in close cooperation with 5 Irish local authorities to track and monitor holistically the impact of energy renovation at municipal level and to better link local and national initiatives, may be useful: [Build-Upon²-Energy-Renovation-Framework-Methodology-Update-11-January-2022.pdf \(igbc.ie\)](#).

Finally, with further resources, local authorities could probably do more to raise awareness among citizens about the benefits and importance of tackling whole life carbon emissions and reusing buildings. It might also be useful to set up a forum to encourage an increased collaboration between local authorities and Approved Housing Bodies (AHBs) so that they can learn from each other. This should cover both technical and behavioural change aspects of energy renovation

The Circular Economy

In Europe, the construction industry is responsible for 50% of all extracted raw materials and 1/3 of fresh water used. Construction products and buildings are also the main source of waste generation in the EU, representing 30% of our total waste, with most materials still ending up in landfill. The sector is both carbon and resource intensive, and any “Circular Economy” Strategy must have a strong focus on Construction and Demolition (C&D).

With that regard, the development of a Circular Economy Roadmap for the Construction Sector (CE/24/4) is highly welcomed. As part of the EPA-funded project **Circular Build project**, the IGBC is also designing and developing a National Circular Built Environment Roadmap to 2040. Although the full roadmap will only be launched in October 2024, we would be delighted to contribute to CE/24/4.

Key learning from initial stakeholder engagement process (6 workshops) include:

- Thinking and acting circularly early in the process is critical for saving resources, avoiding waste generation and associated emissions. It's also key in reducing costs and improving processes.
- Switching from Value Capture, the process of retaining some percentage of the value provided in every transaction (e.g., recycling) to Value Creation, the process of turning resources into something valuable with work, is crucial. This can facilitate innovation and the creation of new business models.
- There are general challenges in adopting and implementing circular economy principles, starting from lack of information, lack of digitized data, poor collaboration, circular material supply risks, negative public perception, and lack of market readiness.

Adaptation

The IGBC welcome the introduction of a new section on adaption. The IGBC would be delighted to work through its [Biodiversity and the Built Environment Community of Practice](#) and its [Climate Safe Homes](#) initiative to support with the development and implementation of the actions listed under this section, and more specifically AD/24/3 on the delivery of a National Implementation Strategy for Nature-Based Solutions for the management of rainwater and surface water runoff in urban areas.

Appendix 1 – Useful Resources

- **Decarbonisation:**

The [Building a Zero Carbon Ireland Roadmap](#) was developed by the Irish Green Building Council (IGBC) through extensive stakeholder engagement in 2021-2022.

The roadmap includes a **series of actions to decarbonise Ireland's built environment across its whole life cycle**, including **recommendations for central government (p.30) and local authorities (pp. 41)**. The roadmap makes a strong case for a more holistic, cross-sectoral approach to the decarbonisation of the built environment. More coordinated actions to address emissions associated with the built environment, would allow us to address building, transport, industry and (to some extent) agriculture emissions, as emissions associated with the built environment do not only relate to the energy we use to heat, cool, and power them. Where we build them impacts our transport emissions. How we build/renovate them impacts our industrial emissions from the production of construction materials.

IGBC has worked with the University of Galway, Construct Innovate and SEAI ([INDICATE project](#)) to **develop the national methodology for GWP disclosure aligned with requirements of the EPBD**, Level(s) and EN 15978 with national defaults and national data. We have started with the support of many of our members and created an initial database of 20 buildings of different typologies, houses, apartments, student accommodation, warehouses, hotels, office buildings. A total of 50 should be available by the end of June 2024.

- **Planning**

The Irish Green Building Council has developed the [Home Performance Index certification](#) for new residential developments. This goes far beyond Building Energy Ratings (BERs) and cover indicators such as transport, accessibility, ecology, Indoor Air Quality, etc. The technical manual is available at [HPI-Technical-Manual-v3.0.pdf \(homeperformanceindex.ie\)](#).

We are currently involved in a project called **Viable Homes** which aims at developing practical guidance for planners and developers for carbon optimisation of constructions and developments. A summary of initial findings is available at [Viable Homes - Guidelines for planners on the design and building of low carbon, low rise, medium density housing in Ireland - V1.0 \(igbc.ie\)](#). This handbook intends to highlight to planners and other key stakeholders the whole life cycle impacts of constructing new dwellings on greenfield sites and to provide recommendations to mitigate this impact. This document is highly relevant to the following sections of the Climate Action Plan: Built Environment and Transport. The project is funded under the Housing for All fund available through the Department of Enterprise, Trade and Employment, and supported by [Construct Innovate](#). The project partners are the IGBC, the Building in a Climate Emergency Research Group (BIACE), and the Centre for Irish Towns (CfIT) - both based in University College Dublin.

- **Energy Renovation**

The IGBC has worked on several projects over the last two years to support energy renovation at scale. These include:

- The objective of the SEAI-funded ENACT project ([Enabling National Action on Commercial Retrofit](#)) is to support energy renovation in the SME sector through the development of toolkits, training, etc.
- The development of an [Energy Renovation Framework](#) in close cooperation with Dublin City Council (Cork City, Laois and Offaly County Council) to capture better quality data on the impact of energy renovation (Build Upon Framework). The framework includes 15 indicators but can be used in a very flexible way, e.g., you may use 3-4 indicators. A copy of the technical manual is available at [Build-Upon²-Energy-Renovation-Framework-Methodology-Update-11-January-2022.pdf \(igbc.ie\)](#), and we would be [delighted to provide you with further information if needed](#).
- The development of a comprehensive set of recommendations to better address energy poverty through energy renovation (March 2024): [IGBC-Energy-Poverty-and-Energy-Renovation-Report.pdf](#)

- **Circularity**

As part of the EPA-funded project **Circular Build project**, the IGBC is designing and developing a National Circular Built Environment Roadmap to 2040. The project also involves the creation of a Circular toolkit for industry professionals, academics and students, as well as the creation of an Educational Hub, which aims to provide leadership in transitioning the Irish construction sector towards a decarbonized and circular built environment. More information on this project is available at [Circularity in the Built Environment - Irish Green Building Council \(igbc.ie\)](#).

The IGBC are also piloting CMEx ([Construction Materials Exchange](#)), a scheme to demonstrate a feasible, transparent, fair, user-friendly system for the reuse of construction materials that would otherwise enter the waste stream. The project, funded by the Department of the Environment, Climate and Communications, Circular Economy Innovation Grant Scheme, will identify and track resources through the supply chain; identify the potential value of matching materials, and apply these insights to steer organisational processes towards supporting a circular economy.

- **Skills**

As part of the Build Up Skills Ireland (BUSI) 2030, the IGBC, in cooperation with CIF, LOETB and TUS, and through extensive stakeholder engagement recently launched its National Upskilling Roadmap 2030. The Roadmap outlines the steps we can take to gain the necessary skills for achieving our national climate action targets for housing retrofitting, renewables and the decarbonisation of Ireland's built environment. The Roadmap is available at: [BUSI2030 ROADMAP-FINAL 240327.pdf \(igbc.ie\)](#).