

Open Grant Call to Establish Build Digital Project

Guide for Applicants

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Providing coordination and leadership in order to deliver increased digital adoption across the entire Irish construction and built environment sector

Guide for Applicants

Important dates

| Indicative Call Schedule | |
|-----------------------------------------|-------------------------------------|
| Call launch | Wednesday 16 th December |
| Expressions of Interest Deadline | Friday 15 th January |
| Application Deadline | Monday 15 th February |
| Announcement of Results | Monday 8 th March |

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1. BACKGROUND

Project Ireland 2040, consisting of the National Planning Framework and the National Development Plan, was published in 2018 and constitutes Ireland's overarching strategy to make Ireland a better country for all of its people. A central principle of adopting such a long-term strategy is to provide greater confidence and certainty to the construction sector and this remains the case in the context of recovering from Covid-19.

The opportunities under Project Ireland 2040 remain clear. The Government will continue to invest unprecedented levels of public capital into the development of new social, economic and climate infrastructure. Grasping these opportunities requires overcoming challenges around supply-side capacity of the construction sector. In order to do this, Ireland needs a competitive, dynamic, green and sustainable construction sector that delivers high quality physical infrastructure for all our citizens.

To confront these challenges and make the most of the opportunities ahead, the Construction Sector Group has overseen the publication of the Building Innovation Report. That report was informed by research carried out by KPMG and Future Analytic Consulting and peer reviewed by Technological University Dublin. The action plan is structured under the three themes of:

- Innovation and digital adoption
- Regulatory reform
- Investment Pipeline

The CSG Innovation and Adoption Subgroup was set up to implement the 7 priority actions relating to that theme.

| Actions on innovation and digital adoption | Leader | Primary Impact |
|--------------------------------------------------------------------------|-------------|---------------------|
| Further expand and develop the work of the Construction Research | CIF | Increase value of |
| Forum and carry out an industry needs assessment. | | output |
| Develop an action plan to promote funding opportunities arising from | ACEI | Increase value of |
| external funding sources such as the horizon 2020 programme and the | | output |
| Disruptive Technology and Innovation Fund. | | |
| Establish a joint working group to guide the development of the off-site | CIF | Increase efficiency |
| production sector. | | and reduce cost |
| Advance plans to develop a Technology Centre for the construction | Enterprise | Increase value of |
| sector. | Ireland | output |
| Establish a digital network under the Construction Skillnet. | CIF | Develop human |
| | | capital |
| Digitise the planning application process to reduce unsustainable, time- | LGMA, Local | Increase efficiency |
| and cost- inefficient paper-based reporting. | Authorities | and reduce cost |

| Establish and fund <i>Build Digital</i> – a centre of excellence to promote BIM | DPER | Increase efficiency |
|---------------------------------------------------------------------------------|------|---------------------|
| and digital adoption. | | and reduce cost |
| | | |

This also builds upon the work of the National BIM Council which produced a roadmap in 2017 which recommended the establishment of a National BIM Centre of Excellence.

2. FUNDING AVAILABLE

The Department of Public Expenditure and Reform is launching a competitive grant call in December 2020 with the successful bidder to be selected in 2021.

The successful bidder will be eligible to draw down public grant funding of up to €500,000 per annum for a total of five years (totalling €2.5 million), subject to meeting the requirements of the grant agreement.

Public funding should be supplemented by industry funding.

Applications are being sought from multi-partner consortia, for example collaborations between higher education institutions (HEIs), companies (with the exception of digital software-providing companies who may have a conflict of interest) and/or other Research Performing Organisations (RPOs). It should be noted that for any consortia applying for this grant it is essential that the requisite skillsets in Higher Education Institutes would be expected to be part of the partnership.

One successful application will be selected based on the criteria detailed in this document.

3. THINKING ABOUT APPLYING

The call for Expressions of Interest (EOI) will close automatically at 15:00 Irish Time on 15th January 2021 and EOIs not received in the csginnovation@per.gov.ie inbox by this deadline will be ineligible. Receipt of applications will be acknowledged. Paper applications will not be accepted.

Following on from this, the call for full proposals (see further details of requirements below) will close automatically at 15:00 Irish Time on 15th February 2020 and full proposals not received in the csginnovation@per.gov.ie inbox by this deadline will be ineligible. Receipt of applications will be acknowledged. Paper applications will not be accepted.

The EOI and full proposal form must be submitted by the lead partner before the call close.

A "lead partner" and a strong project management structure will be necessary. Lead partner means the party having submitted the Consortium Application on behalf of the consortium and having overall responsibility for project management structures. All individual partners

retain full legal and financial responsibility for their own role within the collaboration. The successful bidder may be required to complete a consortium agreement in advance of the grant agreement.

If you have any questions regarding the application process, please address them to the National Investment Office at csginnovation@per.gov.ie with the subject line 'Build Digital FAQ'. The deadline for receiving queries will be 15:00 Irish Time on 30 DECEMBER 2020. Any answers to queries will be posted on the DPER website by 7th JANUARY 2021.

4. INTENTION OF THIS GRANT FUNDING

Government intervention and public funding is generally required when the market lacks the ability or incentives to address a particular problem. The remit of this call, and the public grant funding associated with it, is specifically focused on addressing the identified market failure of "a lack of coordination and leadership leading to limited adoption of the necessary digital technology, standards, practices and expertise throughout the Irish construction and built environment sector".

Data to measure and quantify the level of digital adoption and any associated benefits within the Irish construction sector is current up to Q3 2019 e.g. Building Information Modelling $2019^{1\ 2}$. A gap analysis to address the current state will be necessary to establish a base line for KPIs and to measure and demonstrate delivery of the desired outcomes by the project overtime.

The overarching objective of the project to be funded by this grant is therefore to deliver integrated interoperable digital data adoption (sometimes referred to as iBIM) as a minimum standard, across the entire Irish construction and built environment sector, amongst both clients, operators and suppliers, in order to drive greater efficiency, sustainability and productivity in delivering and maintaining construction output and to gain competitive advantage in the international construction market. iBIM must incorporate as a minimum the BIM Dimensions 4D (Time & Phasing Simulation), 5D (Cost Analysis & Monitoring), 6D (Sustainability & Energy Performance), 7D (Facility Management, Operation and Maintenance) and 8D (Health & Safety, Accident Prevention), as well as the integration of future nD Dimensions which have not yet been universally agreed.

In this regard the construction and built environment sector should be taken as covering all stakeholders involved in the lifecycle of a built asset, including owners, facility operators, design team members and their suppliers (architects, surveyors, civil, structural, MEP and services engineers), to the contractors, subcontractors and supply chain.

¹ Hore, A, McAuley, B, West, R. (2019) Building Information Modelling in Ireland 2019 2 Hore, A, McAuley, B, West, R. (2019) A Study of BIM Maturity and Diffusion in Ireland, Proceedings of the 4th CitA BIM Gathering, Galway, 26th September 2019

While the project should be beneficial for all parts of the construction sector, two subsectors believed to need particular support initially are:

- Construction sector SMEs (including suppliers of goods and materials)
- Clients (both public and private sector)

In designing this open call the four themes to be addressed have been specified below but the solution has not been over-prescribed. This approach is intended to allow bidders with the relevant sectoral expertise to propose the most effective potential solutions within the budget available.

The themes to be addressed should include the following four areas along with an associated programme of communication and promotion of the project's objectives and plans, as suggested in the National BIM Roadmap:

1. Digital Leadership and Culture Change

The project should lead a culture change in the Irish construction sector through the creation of a single source of expertise where productivity, energy performance, lean construction, sustainability, decarbonisation, the circular economy, procurement and BIM co-exist and are actively promoted, supported, and enabled. The project should also promote innovation, the use of Digital Twins and the integration of emerging technologies such as AR, VR, IoTs and Neural Networks, which will further streamline the Irish Construction Sector. In addition, the project needs to collaborate widely with industry including SMEs, the education sector, Construction Skillnet, the Professional Bodies, Public and Private Sector Clients and the wider public to ensure that it drives culture change and that the benefits of that change are distributed and embedded nationally. The project should integrate new methods of infrastructure delivery and processes into all aspects of its digital DNA/ footprint such as MMC (Modern Methods of Construction).

2. Digital Standards

The project should drive and support industry and government to adopt the appropriate standards and guidance and use of Open Data. The project should where appropriate establish and promote the use of SMPs (standard methods and procedures). In this regard, the project needs to liaise and collaborate with the National Standards Authority of Ireland to ensure that best practice is employed in terms of national, international, EU and global standards. The project should also incorporate the use of other International Standards of best practice such as the ICMS (International Construction Measurements Standards), the IPMS (International Property Measurements Standards) and the ILMS (International Land Measurement Standards).

In order to facilitate early deliverables and adoption, an emphasis should be placed on responding to the most immediate needs within the industry in the short term, all within a framework to be built upon in due course as uptake and adoption increases.

3. Digital Education & Training

The project should help construction stakeholders to address the skills and knowledge deficits that they have restricted them from engaging in digital adoption. The project should address the requirement for investment in Human Capital in all aspects with particular emphasis on emerging skills and roles providing opportunities such as data analytics.

4. Digital Procurement

The project should provide a space for the sharing of best practice around digital innovation in procurement, including in contracts, copyrights, intellectual property and project management.

These areas of focus should be constituted as pillars of the project. The project should not duplicate the work of existing Government organisations/agencies with policy responsibilities in these areas such as the National Standards Authority of Ireland, Higher and Further Education Institutes, and the Office of Government Procurement.

Furthermore, the project should be cognisant of and aligned with wider trends, initiatives and policies relating to the sustainability and green agendas and any other relevant agendas. Further background information on relevant climate change and sustainability issues that should be taken into account in developing the Build Digital Project are set out in the appendix to this document.

It is critical that the Build Digital project avoids Conflict of Interest regarding potential partnerships with suppliers, e.g. software providers. As part of the grant agreement the successful bidder will be required to commit to outputs achieving OPEN BIM and to ensure that this is maintained across all initiatives.

Finally, a disconnect between the theory and practice and potential 'BIM/Digital bubbles' must be avoided. The project must have a strong focus on practical adoption across all sectors of the industry.

5. WHAT ARE THE ELIGIBILITY CRITERIA?

The pass/fail mandatory criteria for this grant are as follows:

- Applications must contribute to the objective for which the fund was established (i.e. increase digital adoption in the Irish construction and built environment sector).
- Applications must contribute to additionality i.e. applications must demonstrate that funding will be for deliverables which are not already ongoing or approved for funding.
- Applications must be from a Republic of Ireland-based consortium.
- Applications must carry out at least 51% of project work in the Republic of Ireland.
- Applications must be multi-party with a minimum of 2 participants.
- Applications must have at least one non-Dublin based member organisation of the consortium in the Republic of Ireland.
- Applications must have the use of existing facilities in the Republic of Ireland.

Applications must specify plans for compliance with DPER Circular 13/2014
 Management of and Accountability for Grants from Exchequer Funds.

6. PROCESS

1. Launch Call – 16th December

The call is launched on the DPER website. There will be a 30 day lead-in time for Receipt of Expressions of Interest.

2. Receipt of Expressions of Interest (EOI) – 15th January

It is necessary for any consortium to complete and submit an EOI form. Details required in the EOI include:

- 1. Intention to meet mandatory pass/fail criteria
- 2. Consortium Organisations:
 - Name of Lead Applicant and Organisation details
 - Name of Co-Applicant and Organisation details
 - Other Partner details

3. Receipt of Full Proposal - 15th February

This will include the Budget plan and proposals.

Proposal

- Statement on specific deliverables under each of the four themes; and how these meet the objectives of the Call
- Proposed performance metrics for evaluation (to include both output and outcome indicators)

Funding Details

- Budget Plan
- Planned Industry Contribution
- Any Other Contributions

4. Eligibility Check – 16th February

An eligibility check based on the pass/fail requirements listed above will be held on receipt of applications. This will be led by the Department of Public Expenditure and Reform. If the proposals fail any element of the Eligibility Check they will be deemed ineligible and be withdrawn without further evaluation. Applicants will be informed of the criteria where their proposals failed.

Once the proposals pass each element of the Eligibility Check, they will be passed to each member of the Grant Evaluation Committee.

5. Remote Sitting of Grant Evaluation Committee – Stage 1 – 23rd February

The committee will assess grant proposals received at a remotely-convened meeting.

Applicants will receive feedback on the committee's observations of their proposal and they may address these comments, compile responses to them and issue them to the committee for consideration at Stage 2 when the scoring of the applications will take place.

6. Remote Sitting of Grant Evaluation Committee – Stage 2 – 8th March

In Stage 2, the Grant Evaluation Committee will receive a copy of the Proposal, the Stage 1 comments and a copy of the applicant's rebuttal of commentary from Stage 1. Once the Grant Evaluation Committee has completed its evaluation, the bidders will be informed of the decision.

7. SCORING CRITERIA

The Committee will mark the proposals using the award criteria and marking scheme as set out below. Applications will be scored as a whole rather than separately on individual participants. Applications must demonstrate:

- 1. Strategy to appraise and address the digital construction challenges in Ireland. (30%)
- 2. **Budget and Measurable deliverables** under each of the four themes to address the challenge for Build Digital of increasing digital adoption. (40% in total, 10% per theme)
- 3. **Expertise and experience** in relation to the topic of digital construction, the four themes, engagement with the construction industry generally and experience in using grant funding and managing similar programmes of work in the past. (30%)

The breakdown of the scoring criteria is set out as follows:

1. Strategy to Address the Digital Construction Challenges in Ireland

| Score | Reasoning | % |
|-----------|---------------------------------------------------------------|---|
| Excellent | Strong strategy to address the digital construction challenge | |
| | in Ireland, in particular in relation to practical adoption | |
| | amongst all stakeholders in the lifecycle of a built asset, | |
| | particularly clients on the demand side and SMEs, which is | |
| | likely to result in significant value added from increased | |
| | digital adoption. Robust evidence of planning and | |
| | cooperation framework and clear delineation of roles. | |
| | Detailed plans for strong involvement of key stakeholders | |
| | involved in addressing challenges, in particular for the | |
| | adoption on the ground by industry. Includes detailed | |

| | proposals to measure and track digital adoption in the construction sector in order to evaluate the success of the project. | |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Very high | Reasonable strategy to address the digital construction challenge in Ireland, in particular in relation to practical adoption amongst all stakeholders in the lifecycle of a built asset, particularly clients on the demand side and SMEs, which is likely to result in significant value added from increased digital adoption. Evidence of involvement and/or consultation with key stakeholders involved in addressing challenges, in particular for the adoption on the ground by industry. Includes detailed proposals to measure and track digital adoption in the construction sector in order to evaluate the success of the project. | |
| Satisfactory | Evidence of a strategy to address the digital construction challenge in Ireland, particularly in relation to practical adoption amongst all stakeholders in the lifecycle of a built asset. Planning and cooperation framework exists. Plans for stakeholder engagement to address challenges. Includes detailed proposals to measure and track digital adoption in the construction sector in order to evaluate the success of the project. | |
| Low | Very limited evidence of a strategy to address the digital construction challenge in Ireland. | |
| Very low | No evidence of a strategy to address the digital construction challenge in Ireland. | |

2. Budget and Measurable Deliverables

| Score | Reasoning | % |
|--------------|----------------------------------------------------------------|---|
| Excellent | A detailed annual breakdown of measurable deliverables and | |
| | associated budget requirements under each of the four | |
| | themes and how they will impact on the desired outcome of | |
| | increased digital adoption in practice across the industry. | |
| Very high | A breakdown of measurable deliverables under each of the | |
| | four themes and associated budget requirements, along with | |
| | how they will impact on the desired outcome of increased | |
| | digital adoption in practice across the industry. | |
| Satisfactory | A breakdown of measurable deliverables and associated | |
| | budget requirements and how they will impact on the desired | |
| | outcome of increased digital adoption in practice across the | |
| | industry. | |
| Low | A basic breakdown of deliverables. | |
| Very low | Deliverables which lack detail or clear linkages to addressing | |
| | the four themes. | |

3. Expertise and Experience

| Score | Reasoning | % |
|-----------|-----------------------------------------------------------------|---|
| Excellent | Extensive qualifications and practical industry experience in | |
| | relation to the topic of digital construction, the four themes, | |

| | the construction industry generally and experience in using grant funding and managing similar programmes of work in the past. | |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Very high | Good qualifications and practical industry experience in relation to the topic of digital construction, the four themes, the construction industry generally and experience in using grant funding and managing similar programmes of work in the past. | |
| Satisfactory | Reasonable qualifications and practical industry experience in relation to the topic of digital construction, the four themes, the construction industry generally and experience in using grant funding and managing similar programmes of work in the past. | |
| Very low | Reasonable expertise and experience in relation to some of the required areas but without the necessary expertise or experience in others. | |
| Low | Insufficient expertise and experience in relation to the required areas. | |

| Rate | Weighting | Meaning |
|--------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Excellent | 91% - 100% | Excellent response with no weaknesses, exceeds requirements, and provides comprehensive, detailed, and convincing assurance that the Proposal will deliver to an excellent standard |
| Very High | 80% - 90% | A good response that demonstrates real understanding and fully meets the requirements and assurance that the Proposal will deliver to high standard. |
| Satisfactory | 60% - 79% | A satisfactory response which demonstrates a reasonable understanding of requirements and gives reasonable assurance of delivery to an adequate standard but does not provide sufficiently convincing assurance to award a higher mark. |
| Low | 30% - 59% | A response where reservations exist. Lacks full credibility/convincing detail, and there is a significant risk that the proposal in its current format will not be successful. |
| Very Low | 1% - 29% | A response where serious reservations exist. This may be because, for example, insufficient detail is provided, and the response has fundamental flaws, or is seriously inadequate or seriously lacks credibility with a high risk of non-delivery. |
| | 0% | No Response |

A minimum score of Satisfactory (60 %) is required under each criterion to progress to funding stage.

Applicants will be informed of the outcome of the evaluation by e-mail.

Feedback to applicants will consist of the scores assigned and the decision in relation to funding in an Evaluation Summary Report. Additional feedback will not be provided beyond that which is provided with the assessment result.

Please note that this decision is final and that no correspondence will be undertaken in relation to individual assessments or scoring.

Applicants will have the opportunity to seek redress should they feel that their application was not treated fairly/adequately on an administrative basis. They must do so within two weeks of receiving the outcome communication.

4. OVERSIGHT

Before the grant funding commences, DPER will set out in a grant oversight agreement mutual expectations in terms of clarity on what the grant is funding and will include associated annual targets and performance metrics. This will include governance and reporting arrangements as well as plans for evaluation.

5. GUIDANCE FOR APPLICANTS

The Proposal

A proposal should have a duration of five years. Under this Build Digital grant call a single project will be funded, where all participants are collaborating to common aims and objectives (i.e. not a collection of projects with different aims and objectives under an umbrella consortium). It is expected that the majority of project work will be carried out in Ireland. Any exceptions to this must be made clear at application stage and must be justified. It is a requirement that the majority of the funded activity be undertaken in Ireland.

The Consortium

- The minimum consortium supported under the scheme will comprise of at least two independent partners seeking funding.
- Ideally, there should be a strategic rationale for the consortium, i.e. they have different areas of expertise and experience which are relevant for the project.
- Entities outside Ireland can collaborate in the project but will not be considered eligible partners or able to receive grant funding.
- There should be appropriate balance in the consortium and ideally no participant should account for less than 10% of the project funding, unless they have specific capability or intellectual property on which the project hinges.
- Consortium size should be considered in terms of ease of management and effective participation in the project.

Collaboration

- Collaboration and collaborative research are key aspects of the Build Digital Project.
 They should generally have a strategic linkage, that is, the project would be difficult to execute without their mutual collaboration.
- Sufficient detail should be provided to allow assessment of the nature of the consortium, its composition, processes, and the benefits to each participant.

Deliverables

- All Deliverables must be SMART (Specific, Measurable, Achievable, Relevant and Time-bound). The ownership of each deliverable and collaborators should be clearly specified in all cases.
- Deliverables should be drafted with sufficient descriptive text to allow evaluators assess the relevance of the deliverables in the context of the project.
- They should be clearly linked to the overall project objectives and where possible be aligned to payment milestones which are typically 6-monthly intervals.
- Deliverables should be periodic and equally dispersed through the entire project timeframe, capable of demonstrating progress to the final objective.

Funding, Costs and Payments

- In general, claims will be based on incurred costs and paid retrospectively.
- Costs should be submitted for payment every 6 months.
- Costs must be relevant, reasonable and wholly necessary within the project. These will be examined in detail for all projects prior to formal contract.
- Costs can only be incurred between the Start Date and End Date of the project.
- Reallocation of costs between partners will not be permitted without prior approval.
- Cost limits will be rigidly applied and where these are outside scope, they will be reduced without reference to the applicant.
- Sales and marketing costs will be disallowed in all cases.
- Costs must be submitted for each individual partner in the consortium under the categories listed below.
- Financial records of payments and receipts must be maintained using either a separate accounting system or an adequate accounting code for all transactions relating to the project and keeping all other administrative records of the project (including, without prejudice to the generality of the foregoing, timesheets detailing the time spent by all persons on the project) the start date of which will be communicated by the Department of Public Expenditure and Reform and make such records available on request such as to enable evaluation and/or financial audit of expenditure to be carried out if so required by any competent authority in line with provisions under national and EU law.

6. SCHEDULE FLOW CHART

| Day 1 | Call is Launched |
|--------|--------------------------------------------------------------------------------------------------------|
| Day 31 | Receipt of EOI |
| Day 61 | Receipt of Proposals |
| Day 62 | D/PER Mandatory Pass/Fail PASS – Move to Stage 1 FAIL – Proposal Withdrawn without Review \$\dpsi\$ |
| Day 69 | Grant Evaluation Committee − Stage 1 ↓ |
| Day 80 | Grant Evaluation Committee – Stage 2 |

7. APPENDIX

CSG SUSTAINABILITY AND CLIMATE ACTION REQUIREMENTS FOR THE INNOVATION AND DIGITAL ADOPTION SUBGROUP ACTIVITIES

INTRODUCTION

Climate change and sustainability overview needs to underpin the work of all of the Actions of the Construction Sector Innovation and Digital Adoption Group.

Ireland's development has to be green and digital, driven by investments in infrastructure, technology and education. The work of the Innovation and Digital Adoption Group should help the Irish economy to recover by tackling the challenges and embracing the opportunities arising from digitalisation and climate action.

Digitalisation is transforming how and where we live, work and learn. We are looking at a vision for an equitable, secure and sustainable transition to a digital society fuelled by data, the reusable raw material of the 21st century.

The digitisation of planning permissions will be needed to enable effective project delivery of future housing and infrastructure to achieve the vision of Project Ireland 2040.

A Green New Deal for Ireland has the potential to accelerate a reduction in greenhouse gas emissions, supported by a statutory net zero target for 2050 and funding through the European Green Deal. A digital enabled Green New Deal for Ireland should include energy system integration and achieving 70% renewable electricity and other renewable infrastructure.

Education will be pivotal to the green and digital future. A reskilling imperative meanwhile calls for a culture of lifelong learning ('digital skills' and 'human skills'), which construction sector bodies can lead and support through their Continuing Professional Development programmes.

There is an opportunity now to make climate action and digitalisation central to Ireland's recovery, to reduce detrimental impact on the environment and improve the quality of our lives.

CONTEXT

- Climate breakdown and biodiversity loss are very serious issues, and it is important to recognise the pressing and systemic change that is now required.
- In September 2018, the IPCC declared that there are only 12 years left to limit climate change.
- In the EU, buildings and construction have a major part to play, currently accounting for 36% of energy-related embedded and operational carbon emissions whilst also impacting our natural habitats.

- The focus for the design and construction of the built environment needs to extend beyond the current Net Zero Carbon Emission regulations if the NDP required transformative change is to be realised.
- The Innovation and Digital Adoption Subgroup will facilitate the drive to the paradigm shift required in professional practice, construction delivery and sector wide. In terms of digital adoption on projects, there is a sustainability and climate action imperative on the Build Digital and other projects to decarbonise our economy by 2050. Therefore, it is important that the full capacity of Building Information Modelling BIM is mobilised to quantify, monitor and minimise carbon emissions at all stages of development.

PROPOSED BENEFITS

Incorporating climate change and sustainability consideration in the seven Actions will help in achieving better outcomes within the construction sector such as:

- The adoption of regenerative design principles
- Better collaboration to reduce physical waste
- Accelerating the shift to low carbon materials and solutions
- Minimising wasteful use of resources
- Sharing knowledge and research protocols for Post Occupancy Evaluation, Life Cycle Assessment and Life Cycle Costing
- Encourage research for better buildings for the future

GLOBAL AND LOCAL GOALS

These are the global and local goals that are driving the climate change and biodiversity agenda that needs to be addressed:-

UN Sustainable Development Goals, 2015

17 goals to ensure the needs of people are met within the planetary boundaries' humanity relies on to survive, and in an equal and fair way. Goals and targets to be reviewed in 2030.

Paris Agreement COP 21, 2015

Keep the increase in global average temperature to well below 2 °C above pre-industrial levels. To limit global temperature rise to 1.5 °C, the global annual emission reduction needed is 7.6% emissions reduction every year between 2020 and 2030. Review contributions to reducing greenhouse gas emissions every five years.

EU Green Deal, 2020

EU policies and framework to become climate neutral by 2050 and reduce CO2 by 55% from 1990's levels. The plan is to review existing laws on its climate merits, and introduce new legislation on the circular economy, building renovation, biodiversity, farming and innovation.

Ireland 2040

The government's long-term overarching strategy to make Ireland a better country for all of its people with a social, environmental, and economic focus.

PERFORMANCE AND DELIVERY

Proactive strategies to optimise delivery and to monitor performance of the seven Actions with a focus on long-term and holistic sustainable outcomes and knowledge sharing to develop best practice include:-

- Providing guides and initiatives within each Action outlining what the construction sector can, and must, do.
- Highlighting the urgency in addressing the climate and biodiversity crisis within each Action
- Providing guidance, targets and metrics on various core sustainability indicators as set out in the following Frameworks and initiatives:-
 - 1. UN Agenda 2030 Sustainable Development Goals
 - 2. EU Level(s) Building Sustainability Performance
 - 3. WGBC Bringing Embodied Carbon Upfront
 - 4. National Development Plan (currently under revision)
 - 5. Climate Action Plan (currently under revision)
 - 6. LETI Climate Emergency Design Guide
 - 7. LETI Embodied Carbon Primer
 - 7. RIAI Sustainability Policy and Sustainability Outcomes Guide

ACTION AREAS

Energy and Emissions

Eliminating greenhouse gas emissions in a building's life cycle, addressing both operational and embodied carbon using BIM 6D sustainability modelling.

Efficient Resource Use

Design for a circular economy with efficient and responsible use of resources including existing buildings, materials, and land.

Biodiversity

Integrate landscape and ecological design with the potential to reduce energy consumption and pollution, improve wellbeing and provide crucial habitat for wildlife.

Health and Wellbeing

Create environments that contributes to physical and psychological wellbeing for everyone, now and in the future.

Water

Design for a resilient relationship with water through efficient, decentralised and circular water systems that avoids pollution of land, and buildings and sites that contributes to future resilience.

Community and Social Value

Ensure practice and places for people that are supportive, inclusive, and attractive to enhance individual and social wellbeing, and community identity.